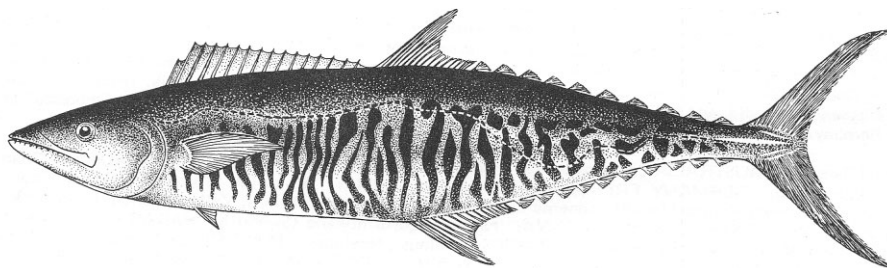


REPORT OF THE  
MACKEREL INDEPENDENT ADVISORY PANEL  
TO THE EXECUTIVE DIRECTOR,  
DEPARTMENT OF FISHERIES  
ON CRITERIA FOR ACCESS  
AND MANAGEMENT ARRANGEMENTS  
FOR THE PROPOSED INTERIM MANAGED  
MACKEREL FISHERY

---

FISHERIES MANAGEMENT PAPER NO. 164

---



November 2002

ISSN 0819-4327

Report of the  
Mackerel Independent Advisory Panel  
To the Executive Director, Department of Fisheries  
On criteria for access and  
Management arrangements for the  
Proposed Interim Managed  
Mackerel Fishery

November 2002

Fisheries Management Paper No. 164  
ISSN 0819-4327

Cover picture: Spanish mackerel, courtesy of  
the Food and Agriculture Organisation of the  
United Nations (ref. No. A47/2000); FAO  
Fisheries Synopsis No. 125, Vol. 2 (1983)  
Scombrids of the world.



Department of  
**Fisheries**

**Letter to the Executive Director of the Department of Fisheries  
from the Chairman of the Mackerel Independent Advisory  
Panel**

---

**MACKEREL INDEPENDENT ADVISORY PANEL**

**3<sup>rd</sup> Floor, SGIO Building  
168 St Georges Terrace  
Perth WA 6000**

752/01

Mr P Rogers  
Executive Director  
Department of Fisheries  
168 – 170 St Georges Terrace  
PERTH WA 6000

Dear Mr Rogers

Attached is the Mackerel Advisory Panel's report to you on criteria for access to and management arrangements for the proposed Mackerel Fishery (Interim) Management Plan.

Broadly speaking, the Panel have recommended a proportional access system of access to the fishery, together with an Individual Transferable Quotas (ITQs) with minimum quota holding management arrangements.

The Panel would like to take this opportunity to thank you for the assistance provided by Departmental officers during the course of their deliberations.

Yours sincerely



Dexter Davies  
Chairman  
Mackerel Independent Advisory Panel

27 March 2002



## CONTENTS

---

Letter to the Executive Director of the Department of Fisheries from the Mackerel Independent Advisory Panel.....	3
SUMMARY OF RECOMMENDATIONS.....	7
SECTION 1 INTRODUCTION.....	11
SECTION 2 METHODOLOGY.....	13
SECTION 3 SHOULD THE COMMERCIAL MACKEREL FISHERY BE MANAGED? .....	14
3.1 Management outside an Interim Management Plan .....	14
3.1.1 Seasonal and zone closures.....	14
3.1.2 Increase the size limit .....	16
3.1.3 Management by Section 43 Order .....	17
SECTION 4 CRITERIA FOR ACCESS AND MANAGEMENT ARRANGEMENTS UNDER AN INTERIM MANAGEMENT PLAN.....	18
4.1 Citation .....	18
4.2 Commencement.....	18
4.3 Cessation.....	19
4.4 Interpretation .....	19
4.5 Procedure before this Plan may be amended or revoked.....	19
4.6 Identification of the fishery .....	19
4.7 Declaration.....	20
4.8 Zones .....	20
4.8.1 Should the fishery be zoned?.....	20
4.8.2 Are proposed zones appropriate? .....	23
4.8.3 Separate management types across the zones.....	25
4.8.3.1 Kimberley Zone.....	27
4.8.3.2 Pilbara and Gascoyne Zones.....	28
4.8.4 Minimum unit holdings .....	29
4.9 Persons prohibited from fishing in the fishery .....	29
4.10 Prohibition on selling, dealing in or purchasing mackerel .....	30
4.11 Closure of zones within the fishery .....	30
4.12 Permits.....	30
4.13 Criteria for the grant of a permit.....	31
4.13.2 Other Criteria.....	31
4.13.3 History .....	32
4.13.4 Knife-edge, limited entry access .....	33
4.13.5 Proportional access .....	33
4.13.6 Conversion rates .....	35
4.14 Duration of permits.....	35
4.15 Fees .....	35
4.16 Items that must be specified on a permit .....	36
4.17 Prohibition of fishing methods in the fishery .....	36
4.18 Use of boats .....	36
4.19 Auxiliary boats .....	36
4.20 Requirements to install an Automatic Location Communicator (ALC).....	37
4.21 Records.....	37
4.22 Logbooks .....	37
4.23 Offences and major provisions.....	37
SECTION 5 USE OF CHARTER BOATS.....	38

SECTION 6 CONCLUSION .....	39
APPENDICES .....	41
Appendix 1 Mackerel Independent Advisory Panel (MIAP) .....	41
Appendix 2 Draft Management Plan.....	43
Appendix 3 Research Advice .....	55
Appendix 4 Compliance Advice .....	57
Appendix 5 Matters the Mackerel Independent Advisory Panel believe should be considered when the Executive Director grants permits for the Mackerel Fishery and with respect to the capacity of the fishery and minimum unit holdings.....	58
Appendix 6 News item from Western Fisheries, January 1996, p13 .....	60
Appendix 7 Department of Fisheries announcements on 'Benchmark Date for Wetline Fishing History' and 'New Study of fishing boat licence' .....	61

FIGURES

Figure 1 Annual catch of Spanish mackerel in Western Australia.....	12
Figure 2 Proposed zones for the interim managed mackerel fishery.....	20
Table 1 Mackerel catches by proposed Zones 1 November 1990 to 31 October 2000.....	26

## **SUMMARY OF RECOMMENDATIONS**

---

1. *That the legal minimum length of 90cm for Spanish mackerel remains.*
2. *That the citation be amended to incorporate the name of the proposed plan as being Mackerel Fishery (Interim) Management Plan 2003.*
3. *That the plan commence operation on 1 January 2003 or as near to that date as is administratively possible.*
4. *That the plan cease to have effect five years from the date of commencement.*
5. *That appropriate interpretation be examined when the plan is being drafted.*
6. *That the mackerel fishery be zoned.*
7. *That the Zone south of 26° 30' south latitude remain in the fishery, but that there be no requirement to apply for a permit to fish for mackerel.*
8. *That if commercial mackerel catches rise above 25 tonnes for two consecutive calendar years in the area south of 26° 30' south latitude, management of the fishery in this area should take place using the following criteria for access:*
  - *Must have caught a minimum of 500kg each year for four out of seven years from 1 November 1990 to 31 October 1997; or*
  - *Must have caught an average of a minimum of 500kg a year over seven years from 1 November 1990 to 31 October 1997.*
9. *That the Total Allowable Commercial Catch for each zone of the fishery be set by the Executive Director, after taking the best scientific and operational advice available to him **to ensure the sustainability of the mackerel fishery.***
10. *That the Kimberley Zone be managed under a quota management system, using an appropriate 'paper trail', vessel monitoring system and a Memorandum of Understanding (MOU) with the Northern Territory Government, an option of varying the mackerel fishing season and specified ports of landing.*
11. *That if, for compliance and cost effectiveness reasons and the ability to enforce prosecutions under an MOU with the Northern Territory, a quota management system cannot be achieved within the objectives set out for the Panel, the Panel recommends the next best option would be a 'days fished' management regime, taking into account steaming time, weather, searching patterns and the use of dories when deciding on the number of days to be fished, and that Vessel Monitoring Systems (VMS) be used to monitor the number of days fished in the mackerel fishery in the Kimberley Zone.*
12. *That the Pilbara and Gascoyne Zones be managed under a quota management system with an option of varying the mackerel fishing season.*

13. *That only the ports/anchorages of Denham, the Blow Holes and Carnarvon must be used to unload mackerel taken in the Gascoyne Zone and only the ports of Exmouth, Point Sampson, Onslow, Dampier, Port Hedland and Broome must be used to unload mackerel taken in the Pilbara Zone.*
14. *That a minimum proportion of five per cent of the units in the Zone of the fishery must be held before an operator can fish in the fishery. If less than five per cent is held, units must be traded as a whole, rather than in separate unit trades.*
15. *That mackerel should only be landed by permit holders in the proposed mackerel fishery, except in the Southern Zone.*
16. *That a person must not sell, deal in or purchase any mackerel taken from the fishery unless the fish were taken by a person who holds a permit in the fishery, except in the Southern Zone of the fishery.*
17. *That the benchmark date of 3 November 1997 is adopted.*
18. *That a criteria period of seven years be taken into account, from 1 November 1990 to 31 October 1997.*
19. *That a Ministerial Guideline be issued, which ensures that the Executive Director can consider hardship cases or extenuating circumstances that prevented the operator from fishing in the mackerel fishery for any year and/or years of the criteria period, which would otherwise result in the criteria not being met.*
20. *That criteria for access to the mackerel fishery be based on the following criteria:*
  1. *Kimberley Zone: Northern Territory border to 121° east longitude*
    - *Must have caught a minimum of one tonne each year for four out of seven years from 1 November 1990 to 31 October 1997; or*
    - *Must have caught an average of a minimum of one tonne a year over seven years from 1 November 1990 to 31 October 1997.*
  2. *Pilbara Zone: 121° east longitude to 114° east longitude*
    - *Must have caught a minimum of 750kg each year for four out of seven years from 1 November 1990 to 31 October 1997; or*
    - *Must have caught an average of a minimum of 750kg a year over seven years from 1 November 1990 to 31 October 1997.*
  3. *Gascoyne Zone: 114° east longitude to 26°30' south latitude*
    - *Must have caught a minimum of 500kg each year for four out of seven years from 1 November 1990 to 31 October 1997; or*
    - *Must have caught an average of a minimum of 500kg a year over seven years from 1 November 1990 to 31 October 1997.*



21. *That the allocations based on the above access criteria be distributed proportionately to a Total Allowable Commercial Catch (TACC) whereby the sum of the catches of each boat which meets the criteria over seven years is totalled. The proportion of each boat's total catch to the total catch is the boat's proportional access to the fishery.*
22. *That each zone of the fishery be unitised, with one unit equal to 250kg in each zone. If the remainder of a person's access does not divide into 250kg, then the units will be rounded up or down to the nearest multiple of 250kg.*
23. *That the following conversion rates be used when assessing the landed weight of product for criteria for access to the mackerel fishery:*  
  
*Whole weight = head/gutted weight (kg) x 1.176*  
*Whole weight = gutted/gilled weight (kg) x 1.048*  
*Whole weight = fillet weight (kg) x 1.608*
24. *That the number and value of units be specified on the permits where appropriate.*
25. *That:*
  - (a) *the dories/dinghies already in use in the Kimberley continue to be managed in accordance with their current licence conditions;*
  - (b) *dories/dinghies fishing in the mackerel fishery continue to be managed by licence condition on a case by case basis; and*
  - (c) *use of dories/dinghies in conjunction with a 'mother boat' should only be permitted in the Kimberley Zone of the mackerel fishery.*
26. *That carrier boats should not be used in the mackerel fishery.*



## **SECTION 1 INTRODUCTION**

---

The Mackerel Independent Advisory Panel was appointed under the following terms of reference:

“To provide advice and recommendations to the Executive Director on matters related to the future management of mackerel fishing in Western Australia, bearing in mind that this proposal is for an interim management plan while the Integrated Fisheries Management Strategy process develops a management strategy for wetfish for Western Australia, by:

- Reviewing submissions made to the Executive Director of Fisheries on proposals for the future management of mackerel fishing;
- Making other such enquiries on mackerel fishing and management proposals on the original draft management plan and the two subsequent management options provided for public comment as the committee thinks necessary to properly carry out its function;
- Taking into account that the proposed interim managed fishery will be considered a minor commercial fishery in terms of cost recovery;
- Providing recommendations on the most appropriate management arrangements for the mackerel fishery; and
- Providing recommendations on how access to the fishery should be determined, giving due regard to the form of management proposed.”

It was also given a specific set of operational objectives and guidelines (Appendix 1), which were followed by the Panel when reaching its conclusions.

Members of the Panel are:

Dexter Davies	Independent Chair
Kim Newbold	Industry Member
Geoff Campbell	Industry Member
Pino Monaco	Member with special qualifications
Tony Cappelluti	Departmental Member

The Executive Officer to the Panel is Fiona Crowe.

The Panel recognises that the mackerel fishery is important to both the recreational and commercial fishing sectors. However, the Terms of Reference require the Panel to report to the Executive Director on access to and management of the commercial mackerel fishery. This report therefore concentrates on the management of that fishery, while acknowledging that the recreational sector has a keen interest in the outcome.

The Panel also recognises that a primary objective of this report is sustainability and fair management of the mackerel fishery, and that the proposed commercial management plan may require continuing modification as the fishery continues to be monitored and new information becomes available. Therefore the aim of the plan is to constrain growth of the commercial mackerel fishery.

The Panel further considers that sustainable catch limits in the commercial mackerel fishery should be based on the best available biological and fishery information (for

both sectors). Steps should also be taken to improve the quality of the fishery data (i.e. catch and effort statistics) in order to improve the quality of future stock assessments.

The Panel was also conscious that the Terms of Reference referred to the Integrated Fisheries Management Process. Therefore the commercial management proposals recommended by the Panel should be seen as short-term, pending the outcomes of the Integrated Fisheries Management process. The Panel believes that its recommendations for the commercial mackerel fishery should be put in place to protect the mackerel stocks while other management processes are ongoing.

The Panel was not asked to allocate the resource between the sectors. Resource allocation is a matter for determination after the Integrated Fisheries Management process has been completed.

## **SECTION 2 METHODOLOGY**

---

Two rounds of public consultation were undertaken by the Department of Fisheries prior to the establishment of the Panel. The Panel established that comment had been sought from the following individuals and groups:

- All fishing boat licence (FBL) holders who had reported catching mackerel from November 1990 to November 1998;
- The peak commercial and recreational fishing bodies, the Western Australian Fishing Industry Council (WAFIC) and Recfishwest;
- All commercial fishing associations from Dongara to the Northern Territory border;
- The Western Australian Gamefishing Association;
- Conservation groups;
- Peak Aboriginal bodies and Aboriginal groups from Geraldton north; and
- FBL lease holders and others who attended public meetings or expressed an interest in the fishery.

The Panel was also briefed by Research Scientists, Dr Michael Mackie, who is undertaking a stock assessment of the mackerel fishery, Dr Rick Fletcher, on Ecologically Sustainable Development issues, Dr Dan Gaughan, and Director of Fisheries Research Dr Jim Penn.

The Panel was briefed by Fiona Crowe on public consultation and the management proposals already put forward by the Department.

The Panel undertook its own public consultation process. It held public meetings in Geraldton, Carnarvon, Karratha, Broome and Fremantle, as its members felt strongly that it was important to speak with and listen to the operators directly involved in the fishery. The Panel also received submissions from individuals, associations and fishing companies who felt they had more information to provide the Panel members.

## **SECTION 3 SHOULD THE COMMERCIAL MACKEREL FISHERY BE MANAGED?**

---

The Panel acknowledges that there is limited biological information specifically related to the mackerel fishery on which to base a decision as to whether the fishery should even be managed.

As a result, members of the Panel closely questioned Dr Michael Mackie regarding the indicators put forward by the Research Division, which purported to show that the fishery might be overfished.

The indicators put forward were:

- Commercial catches have been at historically high levels and are diminishing in the Kimberley and approaching historically high levels in other zones (see Figure 1 overleaf).
- Significant levels of mixing of Spanish mackerel across long lengths of coastline (e.g. from Exmouth to Broome) do not occur. Despite this limited alongshore mixing of juveniles and adults, genetic relationships are thought to span broader regions. Hence the effects of fishing in one zone are likely to have flow-on effects in the other zones.
- It would be inappropriate to manage the fishery by size limit alone, as mortality of released fish is likely to be high, as is mortality due to sharks, both of which may add substantially to the fishing pressure on the stocks.
- This species schools in large numbers in well-known locations and hence can be captured in large quantities. Catch rates of schooling pelagic species can remain high until stock sizes have dropped severely. This makes it vulnerable to fishing pressure.
- Long-term commercial mackerel fishers have raised concerns about the mackerel stocks.

The Panel considers that on balance, the fishery should be managed. This was also the overwhelming view of the majority of the commercial and recreational fishers consulted during the process. The exception was the Geraldton meeting, where industry members preferred the southern/west coast Zone to remain open access. This will be discussed later in the report.

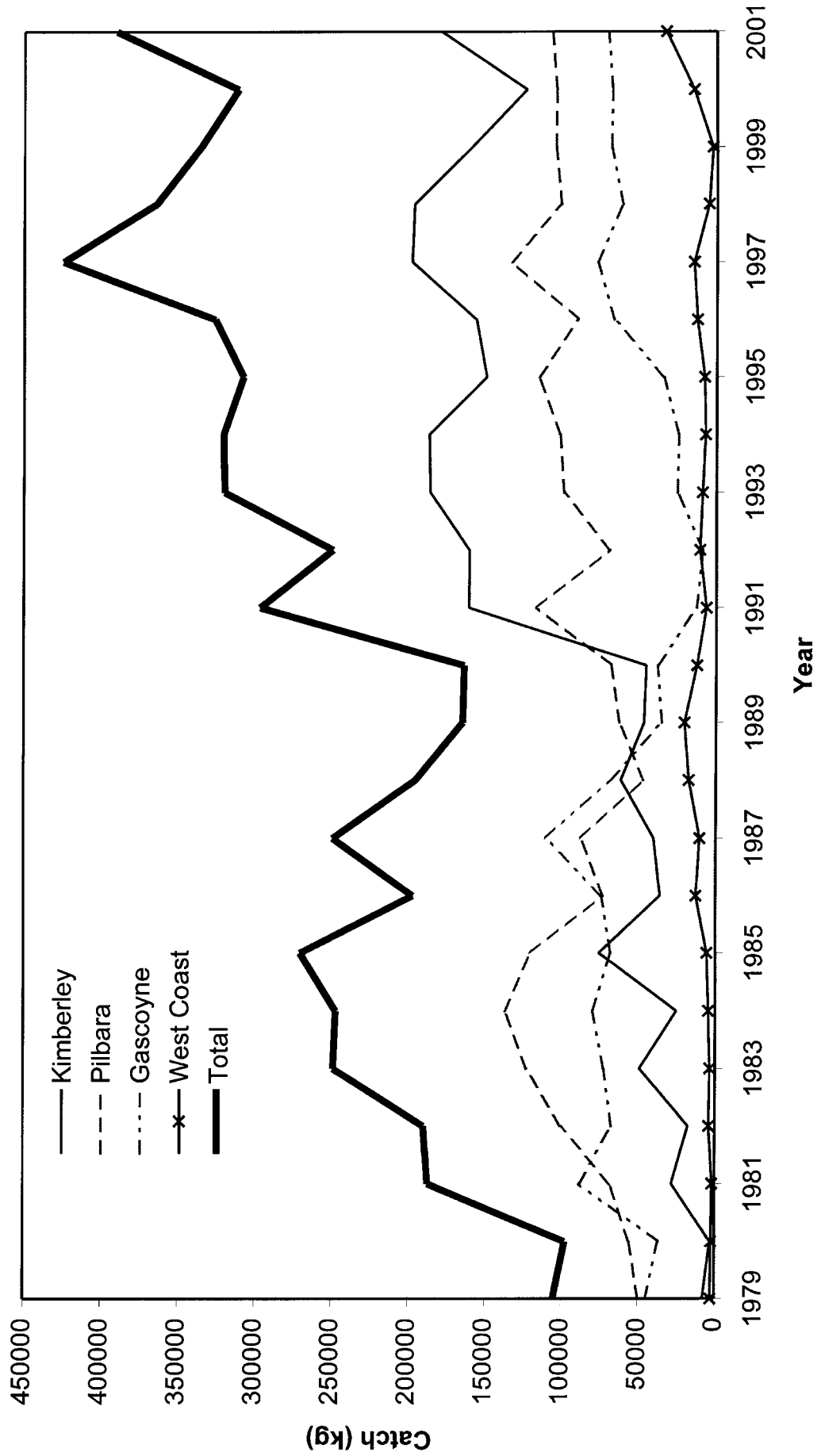
### **3.1 Management outside an Interim Management Plan**

#### **3.1.1 Seasonal and zone closures**

The Panel queried whether management arrangements for the commercial fishery could take place without a management plan, as suggested by some submissions. These submissions suggested management by closure of the fishery by temporal (seasonal) or spatial (zone) methods.

The Panel received the following advice from the Research and Regional Services Divisions of the Department of Fisheries, and talking to commercial and recreational fishers:

Figure 1 Annual catch of Spanish mackerel in Western Australia



- Long-term open access seasonal fishing would not reduce the take-up of latent effort in the fishery although it may reduce fishing effort in the short-term.
- Although the mackerel fishery is seasonal, aggregations are not as predictable as demersal species and may occur during different months of the year.
- Seasonal closures would actively affect the commercial viability of some fishing units, particularly some of those who are most economically dependent on the fishery.
- Seasonal fishing would assist the compliance of the fishery, as Departmental resources would be utilised for shorter, predictable periods of the year, and would thus be more effective.

This issue will be further examined later in the report in the proportional access section.

### **3.1.2 Increase the size limit**

The suggestion was also made that size limits could be increased. One submission in the first round of submissions suggested a size limit of 15kg, and in the second round of consultation the same operators suggested an immediate increase to 100cm. Other fishers have also put forward this suggestion.

Research advice by the Department of Fisheries indicates that the size at sexual maturity for Spanish mackerel in Western Australian waters is 90cm. This is typically set as the legal minimum length as it allows the majority of females to reproduce at least once before entering the fishery. Research also suggests that survival of fish greater than 90cm is likely to be reduced, making it impractical to increase the current legal minimum length.

The anecdotal evidence from every public meeting and the research evidence is that the size of fish at capture is getting smaller. This indicates to the Panel that older, breeding fish are becoming less available, leaving a smaller pool of breeding stock.

Commercial fishers have indicated that they are able to target larger mackerel. This is important, as mortality of released fish is likely to be high, as is mortality due to sharks, both of which may add substantially to the fishing pressure on the fish. As a consequence it would be inappropriate to manage the fishery by size limit alone. These pressures also mitigate against raising the size limit at all, as it may have an adverse impact on mortality.

On balance, the Panel did not agree that increasing the size limit to 100cm would assist the management of the fishery.

#### ***Panel Recommendation 1***

*That the legal minimum length of 90cm for Spanish mackerel remain.*



### **3.1.3 Management by Section 43 Order**

Section 43 Orders are legislative instruments, which must be published in the *Government Gazette*. They are tabled in Parliament and may be ‘disallowed’. Under a Section 43 Order the Minister may prohibit persons or any specified class of persons from engaging in any fishing activity of a specified class.

A Section 43 Order could be gazetted which closes the fishery to all fishers except those who were named as not being prohibited by the Order.

This type of Order could also be used to implement a simple management strategy, such as limiting the number of fishers who can fish for mackerel, and could also be used to apply other minor management arrangements, such as a closed season.

The Panel takes the view that while it might be necessary to use this management tool in order to implement urgent changes in the mackerel fishery, should these become necessary, an interim management plan was the preferred management framework for the commercial mackerel fishery. The Panel takes this view because it provides:

- More secure access for those permit holders who gained access to the fishery;
- An end date, so that if major changes were necessary due to further Research advice, these could be implemented at the end of the interim management plan; and
- An opportunity to ‘dove-tail’ any future management arrangements with the Integrated Fisheries Management Strategy process when it was concluded.

## SECTION 4 CRITERIA FOR ACCESS AND MANAGEMENT ARRANGEMENTS UNDER AN INTERIM MANAGEMENT PLAN

---

For ease of comparison, the Panel has followed the Sections of the Draft Interim Management Plan (Appendix 2) sent out to interested parties and stakeholders at the end of October 2000.

There are a number of management points from the Draft Interim Management Plan that the Panel agrees with, and believes should be incorporated into any proposed plan. These are discussed below. The Panel has only made recommendations where it does not agree with the points made in the original Draft Interim Management Plan, or where there has been some controversy and there is a need to emphasise its decision.

### 4.1 Citation

This Section would need to be amended, as the date of the plan is incorrect.

#### ***Panel Recommendation 2***

*That the citation be amended to incorporate the name of the proposed plan as being Mackerel Fishery (Interim) Management Plan 2003.*

### 4.2 Commencement

The Panel has given itself until the end of March 2002 to report to the Executive Director. The following process will then take place:

- The Panel's recommendations will be considered by the Executive Director,
- The Panel's recommendations, together with the Executive Director's comments, will be forwarded to the Minister for consideration and/or approval for drafting,
- Assuming Ministerial approval is forthcoming, drafting of legislation will take place,
- Ministerial signature will be sought and/or the Minister may require some further public consultation,
- Depending on whether more consultation is required, final Ministerial signature will be sought after further consideration,
- The Interim Plan will require gazettal in the *Government Gazette*,
- The Interim Plan will be tabled in Parliament,
- Ratification of existing catch records will be undertaken,
- Applicants will be invited to apply for a permit in the fishery,
- Access will be granted to those who meet the criteria for access to the fishery,
- Appeals for access will be heard,
- Access to the fishery will be finalised; and
- Allocations based on appropriate Total Allowable Commercial Catches will be determined.

Given all the administrative stages that need to be completed prior to and after Gazettal it is unlikely that the process will be finalised before 1 January 2003. The Panel therefore recommends that this be the date of the commencement of the Plan.

***Panel Recommendation 3***

*That the plan commence operation on 1 January 2003 or as near to that date as is administratively possible.*

### **4.3 Cessation**

When the draft interim management plan was circulated, industry and others were advised that: “This proposed plan is an interim measure for five years while the Integrated Fisheries Management Strategy process develops a management strategy for wetfish for Western Australia”. This is still the case.

***Panel Recommendation 4***

*That the plan cease to have effect five years from the date of commencement.*

### **4.4 Interpretation**

The Panel will examine issues of quota and effort unitisation later in the report. The interpretation section may therefore need to be amended to include these and other terms. The Panel therefore recommends that appropriate interpretation be examined when the plan is being drafted.

***Panel Recommendation 5***

*That appropriate interpretation be examined when the plan is being drafted.*

### **4.5 Procedure before this Plan may be amended or revoked**

The Panel agrees that all the permit holders should be consulted prior to the management plan being amended or revoked.

### **4.6 Identification of the fishery**

The description in the draft Management Plan is “All the waters of the Southern Ocean, the Indian Ocean and Timor Sea”. The Panel agrees with this identification of the commercial fishery.

## 4.7 Declaration

The Panel supports the declaration of the commercial mackerel fishery as an interim managed fishery pending the outcome of the Integrated Fisheries Management process and further scientific data.

The *Fish Resources Management Act 1994* states (Section 70) that an interim managed fishery permit ceases to have effect if the management plan ceases to have effect, or if the management plan for the interim managed fishery is revoked or expires. At that stage any authorisation in force in respect of the fishery ceases to have effect.

Section 72 further states the grant of an authorisation (or permit) to any person is not to be taken as conferring on that person any right to the grant of another authorisation if a subsequent management plan is determined for the fishery.

## 4.8 Zones

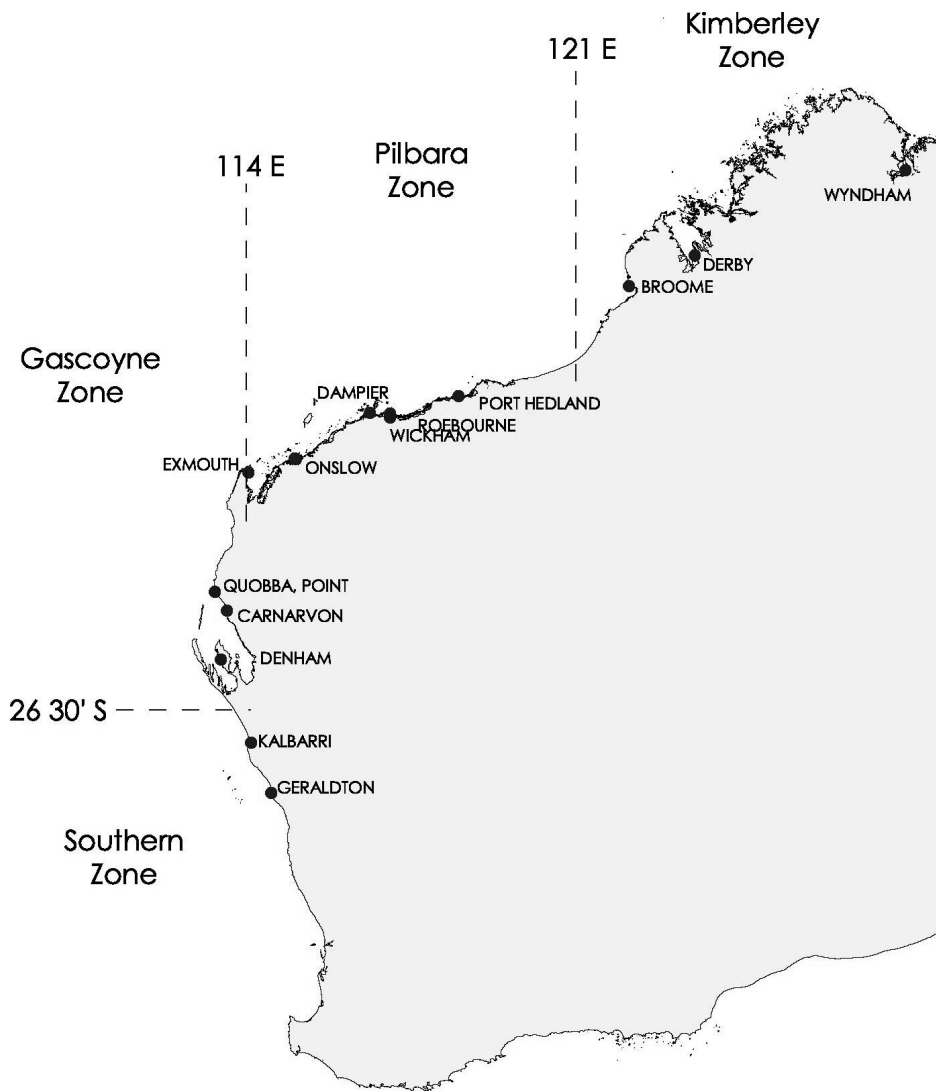
### 4.8.1 *Should the fishery be zoned?*

The zones of the commercial mackerel fishery, as proposed by the Department of Fisheries in Options 1 and 2 of its consultation are as follows:

Zone 1, Kimberley Zone	-	Northern Territory border to 121° east longitude
Zone 2, Pilbara Zone	-	121° east longitude to 114° east longitude (North West Cape)
Zone 3, Gascoyne Zone	-	114° east longitude to 26°30' south latitude.
Zone 4, Mid-West/Southern Zone	-	26°30' south latitude to the South Australian border

These zones are shown in Figure 2, on the following page.

**Figure 2:** Proposed zones for the interim managed mackerel fishery



The Panel first considered whether zoning the commercial fishery was appropriate. It took a number of steps.

- The Panel consulted Dr Michael Mackie, Dr Dan Gaughan and Dr Jim Penn, of the Department of Fisheries' Research Division, regarding the genetic make-up of the stocks and whether or not there was likely to be any genetic interlinking,
- They consulted with Dr Mackie and took advice from fishers on the availability and catchability of fish in the different zones of the fishery,
- The Panel looked at the types of mackerel fishing operations undertaken in the zones of the fishery,
- The Panel looked at the historical fishing patterns by zone of those fishing in the mackerel fishery,
- The Panel considered the biogeographical differences in the zones of the fishery; and
- The Panel considered whether or not it would be more economically efficient to have no zones in fishery.
- The Panel also considered the regional zoning proposals associated with the Integrated Fisheries Management Strategy.

1. Dr Mackie advised that there appears to be a series of separate, but genetically linked, stocks of mackerel along the Western Australian coastline associated with the different areas fished.
2. Dr Mackie also advised that the fish appear to become less available for catching the further south they are. This may be due to lesser abundance of fish, or less catchability, probably the former.
3. The style of fishing differs markedly in each zone of the fishery.
  - There are no dedicated mackerel boats in the Mid-West/Southern Zones and mackerel are taken opportunistically as part of a diversified fishing operation.
  - There are dedicated mackerel operations in the Gascoyne zone, particularly based off the Blow Holes north of Carnarvon. These are usually small-scale operations fishing out of dinghies or small fishing boats. There are four other managed fisheries in this zone. Some snapper fishers in larger boats have targeted mackerel as part of their diversified operations (some have a substantial history of mackerel fishing), whilst others are recent entrants to the mackerel fishery. The Shark Bay Prawn, Shark Bay Scallop and Shark Bay Beach Seine fishers also occasionally take mackerel.
  - In the Pilbara Zone of the fishery, there are three or four dedicated mackerel boats and two which fish in this zone and the Kimberley Zone each year . All of these boats have a substantial history of taking mackerel. There are other boats with a long-term history of fishing that take mackerel opportunistically if the fish are available. These boats are usually licensed to fish in other managed fisheries, such as the Pilbara Trap, Pilbara Trawl, or the prawn trawl fisheries. There are also some more recent entrants to the fishery taking mackerel as part of diversified fishing operations, such as charter operations.
  - The Kimberley Zone has five boats with a history of taking large amounts of mackerel when they fish in the fishery. These boats also use dories and freezers as part of their fishing operations. Other boats in the zone do not use dories, fish closer to Broome, and take smaller amounts of fish. There are also a number of boats in the zone that take mackerel opportunistically.
4. The fishing operations in each of the proposed fishing zones are seasonal, with the months that the fish are available differing slightly in each zone. The fish are available from:

Mid-West/Southern Zone:	January to July;
Gascoyne Zone:	March to September;
Pilbara Zone:	March to November, (although some fishers in the Pilbara fish all year round); and
Kimberley Zone:	May to November.
5. There are distinct biogeographical differences between the zones, accounting for the seasonal variations in the commercial catches between the zones and also

differences in the suite of fish that may be a bycatch of mackerel fishing. However, these biogeographical differences do not correspond directly with the zoning proposals of the Integrated Fisheries Management proposals.

6. It would be more economically efficient for operators not to have zones in the commercial fishery, but it could also quickly lead to a collapse in the mackerel stocks in particular zones if there was easy access between the zones. The Panel recognises that this could be the case at present (except that dories are not permitted south of 19° south latitude), but if highly geared new operators bought into the commercial fishery and fished seasonally where the fish were most catchable it could strain the resource. Even with output controls, it could lead to local depletions if a mackerel fleet moved up the coast seasonally to areas of highest catchability.

***Panel Recommendation 6***

*That the mackerel fishery be zoned.*

**4.8.2 Are proposed zones appropriate?**

Once it had decided that the mackerel fishery should be zoned, the Panel considered whether the proposed boundaries were appropriate.

The Panel has established that the reasons for the proposed zones were:

- A 120° east longitude boundary was initially proposed for administrative reasons (i.e. the 120° east longitude line is the boundary for a number of demersal fisheries in the zone and this would be consistent with those boundaries). However, the 120° east to 121° east area is a major mackerel fishing ground consistently fished by four or five boats. Two of these boats fish in the Kimberley Zone and three fish in the rest of the Pilbara Zone. Two 'Pilbara' boats are permanently based in Port Hedland. In the Department's view, there would be less risk to the mackerel stocks if the two Kimberley-based boats were permitted to continue to fish as they have traditionally done, than if the two Pilbara based boats started to fish in the Kimberley Zone, particularly if the interim managed fishery permits changed hands.

In addition, the two 'Kimberley' boats have licence conditions attached to their dories, preventing their use south of around 19° south latitude, at approximately 121° east longitude, which is consistent with current dory licensing.

- The Geraldton and Kalbarri-based commercial fishers (i.e. those south of the Shark Bay Snapper boundary of 26° 30' south latitude) put forward that their fishery was on the southern margins of the mackerel fishery and that commercial catches of mackerel were small and highly variable. They questioned the need for management and the costs associated with managing that zone.

The Panel agrees with the boundary being moved from 120° east to 121° east between the Pilbara and Kimberley Zones, but the second point was one of considerable debate.

The Panel agrees that there will be a cost to managing the fishery in the southern Zone. The Panel also notes that WAFIC representatives present at the Fremantle meeting supported the management of the fishery in the southern zone.

The average total commercial catches in this zone over the seven-year criteria period were 14.3 tonnes, and only three boats caught an average of more than one tonne during this period. Based on historical catch data, the Panel agrees that the benefits of managing the commercial sector of the mackerel fishery in that zone were outweighed by the costs.

However, since management of the commercial mackerel fishery has been discussed, the Panel notes that commercial catches have increased nearly fourfold, with catches reaching 43 tonnes in 2000/01. It also notes that several new operators, who have never recorded mackerel catches in the zone, are now taking large catches. The Panel recognises that some of this increase may be due to environmental factors as there have been increases in both recreational and commercial catches. Research scientists have reported a recruitment 'spike' in this area during 2001. During 2001, recreational catches of Spanish mackerel were reported as far south as Albany. There was a similar recruitment spike in this area in 1988.

Despite the increased commercial catches, the Panel considers that the southern part of the fishery (proposed Zone 4) should remain in the management plan, but that there be no need to apply for a permit to fish in this part of the fishery at this stage. However, the Panel recommends that if commercial catches of mackerel in this area rise above 25 tonnes for two consecutive calendar years, this zone of the commercial fishery should also be managed.

The Panel also gave serious consideration to recreational sector proposals that the southern zone of the fishery be excluded from the commercial fishery, particularly the area south of 25° south latitude. This matter is one of allocation and resource sharing, which is outside the Panel's Terms of Reference. It is the Panel's view that allocation issues of this nature should await the Integrated Fisheries Management Strategy process.

***Panel Recommendation 7***

*That the zone south of 26° 30' south latitude remain in the fishery, but that there be no requirement to apply for a permit to fish for mackerel.*

***Panel Recommendation 8***

*That if commercial mackerel catches rise above 25 tonnes for two consecutive calendar years in the area south of 26° 30' south latitude, management of the fishery in this area should take place using the following criteria for access:*

- *Must have caught a minimum of 500kg each year for four out of seven years from 1 November 1990 to 31 October 1997; or*



- *Must have caught an average of a minimum of 500kg a year over seven years from 1 November 1990 to 31 October 1997.*

### **4.8.3 Separate management types across the zones**

Once the Panel established that proportional access was the fairest system of access to the fishery (see 4.13.5), it then considered the type of management that would be most appropriate for each zone of the fishery.

The total commercial catches for each zone from the beginning of the criteria period are listed in Table 1 overleaf.

The Panel deliberated for many hours on this issue. Its first priority was the state of the fish stocks. It acknowledges that historically access to a commercial fishery had usually been granted on the basis of limited entry criteria, but did not believe this gave enough protection to fish stocks, as the catch and effort remained open ended. The Panel was of the view that fishing technology was becoming increasingly sophisticated and that input controls would not be able to keep up with technology changes, especially if new operators were servicing large debts and had reason to upgrade their fishing strategies. In addition, the isolation of most of the fishing grounds meant that traditional input controls, such as gear controls were difficult to enforce.

It also acknowledges that with improved technology in the form of Vessel Monitoring Systems (VMS) there is an improved capacity to manage the catch (or notional TACC) using effort controls such as the number of days fished, as is occurring in the Northern Demersal Scalefish Fishery and the Pilbara Trawl Fishery. The Department also has catch quota or Individual Transferable Quota (ITQ) management arrangements in place in a number of fisheries, such as the Shark Bay Snapper Fishery, and has some data to assign proportional shares of any Total Allowable Commercial Catch (TACC) or notional TACC that is set.

*The Panel eventually concluded that from a business certainty perspective and to ensure that commercial catches were kept at sustainable levels once management was introduced, it favoured quota management, or Individual Transferable Quotas (ITQs) for the Gascoyne, Pilbara and Kimberley Zones of the fishery. It believes this was more appropriate than limited entry with input controls, or effort controls, which neither provide an absolute cap on catches, nor the certainty that businesses require to operate.*

In reaching this conclusion, the Panel took into account the difficulties with compliance and the lack of knowledge of the stock. It suggested that seasonal closures could be an option to ensure operational resources are utilised in the fishery for a shorter period of time. The Panel considers that this option would be useful until quota management stabilises the resource and the number of unit holders in the fishery stabilises.

**Table 1:** Mackerel catches by proposed Zones 1 November 1990 to 31 October 2000

<i>Zone</i>	Live weight (Tonnes) 1990-91	Live weight (Tonnes) 1991-92	Live weight (Tonnes) 1992-93	Live weight (Tonnes) 1993-94	Live weight (Tonnes) 1994-95	Live weight (Tonnes) 1995-96	Live weight (Tonnes) 1996-97	Live weight (Tonnes) 1997-98	Live weight (Tonnes) 1998-99	Live weight (Tonnes) 1999-00
<i>Kimberley</i>	200	203	218	269	177	184	255	229	197	128
<i>Pilbara</i>	183	97	144	115	124	134	163	125	115	132
<i>Gascoyne</i>	27	15	35	34	47	95	101	84	104	99
<i>Southern</i>	16	18	12	11	11	16	18	8	8	19

As an interim measure, the Panel also recommends seasonal management (six month seasons) may be an option for the Kimberley, Pilbara and Gascoyne Zones. However, it believes that consideration should be given to operators who fish all year round.

The Panel was firmly of the view that the TACC should be set by the Executive Director, after taking the best scientific and operational advice available to him *to ensure the sustainability of the mackerel fishery.*

The setting of a TACC should not be seen as an allocation of catch shares, but is a mechanism to ensure that commercial fishing pressure on the stocks is constrained to historical, sustainable levels, to ensure the sustainability of the resource.

The Panel's management proposals require an explicit decision on catch levels and/or fishing effort for the commercial fishery, but this should not be seen as usurping allocations arising from the Toohey process.

Despite its strong preference for quota management, the Panel considered that there was a case, from both a compliance and cost effectiveness perspective, for an individually transferable effort (ITE)/"days fished" management arrangement to work as well, particularly in the Kimberley. This is especially so if steaming time, weather and searching patterns are taken into account. The Panel believes this is a second best option, but would work.

Research and compliance advice to the Panel on these matters is in Appendix 3 and 4 respectively.

***Panel Recommendation 9***

*That the Total Allowable Commercial Catch for each zone of the fishery be set by the Executive Director, after taking the best scientific and operational advice available to him to ensure the sustainability of the mackerel fishery.*

The reasons for the Panel's decision on the preferred management options are set out below.

***4.8.3.1 Kimberley Zone***

The Panel came to the conclusion that quota management would be appropriate for the Kimberley Zone. In reaching this conclusion, the Panel took into account the difficulties with compliance, the lack of knowledge of the stocks, and the need to take extra precautionary measures in this zone because of the historically high level of commercial catches. The remoteness would mean that transshipment at sea would be difficult to detect. In addition, some of the major operators in the fishery are Darwin-based, which would add to compliance difficulties.

The cost of compliance will be high using traditional methods of enforcement. Any difficulty in obtaining cross-border prosecutions will be unfair to those forced to comply with the management plan in Western Australia. A paper trail and a Memorandum of Understanding with the Northern Territory will be required. This process is likely to entail

any breaches of quota being investigated by Northern Territory Police, and any subsequent court cases being held in Western Australia.

VMS and increased resources will also be required. The Panel acknowledges that quota enforcement, particularly with interstate compliance difficulties, may not be achievable.

After taking all the above into consideration, the Panel was still of the view that quota management was the best option to ensure that the mackerel stocks were not over exploited by the commercial sector.

Although unpopular with the operators in the fishery, the Panel was of the opinion a 'days fished' or individual transferable effort (ITE) management arrangement would be the second best option as because this would ensure a cap on fishing effort. The Panel recommends that if the 'days fished' proposal is adopted it must be flexible enough to take steaming time, weather and searching patterns into account, as well as the use of dories.

***Panel Recommendation 10***

*That the Kimberley Zone be managed under a quota management system, using an appropriate 'paper trail', vessel monitoring system and a Memorandum of Understanding (MOU) with the Northern Territory Government, an option of six-month mackerel fishing season and specified ports of landing.*

***Panel Recommendation 11***

*That if, for compliance and cost effectiveness reasons and the ability to enforce prosecutions under an MOU with the Northern Territory, a quota management system cannot be achieved within the objectives set out for the Panel, the Panel recommends the next best option would be a 'days fished' management regime, taking into account steaming time, weather, searching patterns and the use of dories when deciding on the number of days to be fished, and that VMS be used to monitor the number of days fished in the mackerel fishery in the Kimberley Zone.*

**4.8.3.2 Pilbara and Gascoyne Zones**

The Panel considers that these zones are suitable for quota management, given the limited number of ports and processors. However, the Panel also acknowledges that these zones are the source of most of the export product, which would bring its own compliance problems. It also acknowledges the lack of compliance resources in the Pilbara zone.

The Panel also believes that in view of the lack of knowledge about the size of the mackerel stocks, the Total Allowable Commercial Catch should be set according to Recommendation 9 above.

***Panel Recommendation 12***

*That the Pilbara and Gascoyne Zones be managed under a quota management system with an option of varying the mackerel fishing season.*

***Panel Recommendation 13***

*That only the ports/anchorages of Denham, the Blow Holes and Carnarvon must be used to unload mackerel taken in the Gascoyne Zone and only the ports of Exmouth, Point Sampson, Onslow, Dampier, Port Hedland and Broome must be used to unload mackerel taken in the Pilbara Zone.*

**4.8.4 Minimum unit holdings**

The Panel considers that those with diversified operations in the fishery should be able to receive some return for their historical involvement in the fishery. It recognised that those with the largest economic involvement in the fishery should be able to continue their operations.

However, the cost of managing a large number of operators in a fishery with proportional access is high, particularly in the more remote areas of the State. The cost of management must be weighed against the benefits to the community as a whole.

The Panel considers that commercial operators who are allocated a proportion of the fishery less than five per cent should receive some return for their investment, but should not be able to fish, due to the high cost of managing a large number of boats in the fishery. Those holding less than five per cent of the units should be able to make business decisions on:

- (i) whether to sell their unit holding and receive a return for their historical investment in the fishery; or
- (ii) retain their unit holding and buy more to achieve five per cent; or
- (iii) retain their unit holding as an investment in the future of the fishery.

This would assist in minimising management costs and would also ensure that those entering the fishery were able to get a reasonable economic return from the fishery.

***Panel Recommendation 14***

*That a minimum proportion of five per cent of the units in the Zone of the fishery must be held before an operator can fish in the fishery. If less than five percent is held, units must be traded as a whole, rather than in separate unit trades.*

**4.9 Persons prohibited from fishing in the fishery**

This is an issue to which the Panel gave a great deal of thought. The Department had proposed a daily limit of two and a possession limit of four mackerel per boat under Options 1 and 2.

This was proposed because there were a large number of boats, which had reported catching very small amounts of mackerel. This proposal would enable them to continue taking mackerel in these small amounts, as a by-product of their other fishing operations.

The Panel examined other single species fisheries to see if this was permitted elsewhere, and noted that in other single species fisheries, such as the Shark Bay Snapper Fishery, and the Rock Lobster Fishery, only licence holders who had access to the fishery were permitted to land that species. The Panel considers that the sustainability issues surrounding the mackerel fishery are such that only permit holders in the fishery should be permitted to land mackerel, except in the Southern Zone.

This point will also be discussed in Section 4.13.5 on proportional access, below.

***Panel Recommendation 15***

*That mackerel should only be landed by permit holders in the proposed mackerel fishery, except in the Southern Zone.*

#### **4.10 Prohibition on selling, dealing in or purchasing mackerel**

The Panel recommends that a person must not sell, deal in or purchase any mackerel taken from the fishery unless the fish were taken by a person who holds a commercial licence issued pursuant to the regulations, and the fish were taken under the authority of a permit, except in the Southern Zone.

***Panel Recommendation 16***

*That a person must not sell, deal in or purchase any mackerel taken from the fishery unless the fish were taken by a person who holds a permit in the fishery, except in the Southern Zone of the fishery.*

#### **4.11 Closure of zones within the fishery**

This clause in the Draft Management Plan gives the Executive Director, after consultation with permit holders, the ability to prohibit fishing in any part of the fishery if, in the opinion of the Executive Director, the prohibition is required in the better interests of the fishery. This would be for the period specified in a notice published in the *Government Gazette*.

#### **4.12 Permits**

The Panel agrees with this clause, which states that a permit may authorise the holder of that permit, or a person acting of that person's behalf, to fish in the Kimberley Zone, the Pilbara Zone or the Gascoyne Zone of the Fishery or any combination of those zones.

## 4.13 Criteria for the grant of a permit

### 4.13.1 Benchmark date

The Panel discussed whether or not the benchmark date of 3 November 1997 was a fair one.

They noted the following points :

- In January 1996 a warning on investment to mackerel fishers was printed in *Western Fisheries* (Appendix 6).
- A benchmark date of November 1997 was put in place in 1997 for all open access fishing (Appendix 7). As a component of the open access fishery, the mackerel fishery was included in the study of open access fishing.

The Panel notes that warnings on investment and benchmark dates are put in place for a very good reason. In the past, when an open access fishery was determined as likely to move to a higher level of management or there were rumours that a fishery may become more formally managed, elements of industry have responded by fishing either for a particular species or by a particular method in far greater numbers than before, to acquire relevant history.

To discourage an increase in open access fishing activity, including mackerel fishing, during the period of the wetline study and the subsequent discussion period for any management arrangements that resulted from that study, the relevant benchmark date was put in place. Therefore, the announcement of a benchmark date, allows industry to carry on its activities, while making business decisions at their own commercial risk, in the full knowledge that changes to management arrangements are in prospect.

Given this background, the Panel takes the view that the benchmark date of 3 November 1997 is a reasonable one, and should be adhered to with respect to the mackerel fishery.

#### ***Panel Recommendation 17***

*That the benchmark date of 3 November 1997 is adopted.*

### 4.13.2 Other Criteria

The Shark Bay Snapper Fishermen's Association and three Shark Bay snapper fishermen put forward that all Shark Bay snapper fishers be allocated one tonne of mackerel. The Panel rejects the argument that as the snapper fleet has traditionally taken some mackerel, all current licence holders in the snapper fishery should gain one tonne of access to the mackerel fishery. The Panel is of the view that the snapper fishery in Shark Bay is a single species fishery, not a multi-species fishery.

One operator suggested that licence holders currently living in a zone should be considered for a permit based on their residency of towns adjacent to the fishery. The Panel does not agree with this proposal, as it would mean that anyone wishing to get a mackerel permit

could move into a zone. In addition, there are a number of operators who work seasonally in certain zones, and their permanent address may be outside the zone.

Investment in the fishery has also been mooted as a criterion for access. The Panel agrees that regional development and employment aspects are important, but believes that management of the mackerel fishery was well sign-posted, and if fishers invested in the fishery *after* the announced dates they did so at their own commercial risk.

Other submissions have suggested that all boats, which have history prior to November 1997, should be permitted to fish in the fishery. This suggestion does not take into account the fact that a large number of boats have a history of some mackerel fishing in each zone, and this would not result in less fishing. It would be likely to result in increased fishing pressure because those who gain access start to utilise their latent effort. The Panel therefore did not accept this suggestion.

#### **4.13.3 History**

The Panel understands that the Department of Fisheries looked at precedents before deciding how many years fishing history should be relevant before the original draft plan was circulated for public comment. The Cockburn Sound Managed Fisheries, which had long-term fishers and as well as more recent operators, all took four years' history into account. The Northern Demersal Scalefish Fishery also took four years into account, but most of those operators were relatively recent.

The Panel knows of no other fishery that has taken seven years' history into account, and considers this to be a fair period of time. It accounts for long term operators, who may have had hardship reasons for not fishing the whole criteria period, while allowing for more recent entrants to gain some kind of history. The Panel believes it is unreasonable, and without precedent, to consider 20 years of history, as has been suggested by some industry members.

The Panel notes that the recommended criteria period of history includes a period of time when commercial catches were relatively low to a period when they reached historically high levels.

#### ***Panel Recommendation 18***

*That a criteria period of seven years be taken into account, from 1 November 1990 to 31 October 1997.*

#### ***Panel Recommendation 19***

*That a Ministerial Guideline be issued which ensures that the Executive Director can consider hardship cases or extenuating circumstances which prevented the operator from fishing in the mackerel fishery for any year and/or years of the criteria period, which would otherwise result in the criteria not being met.*



#### **4.13.4 Knife-edge, limited entry access**

The Panel does not consider that this type of entry criteria addresses equity or sustainability (see discussion in 4.8.3) issues and therefore does not consider it a suitable way of determining access to the mackerel fishery. In addition, it leaves commercial catches open-ended, and does not address sustainability issues.

#### **4.13.5 Proportional access**

The difficulty for the Panel has been how to address the competing claims for access to the fishery in a fair and equitable way.

The Panel examined the issue of proportional access to the fishery at length.

In all zones of the fishery there are fishers whose major source of income is derived from the mackerel fishery. There are also fishers in each zone who take a small but consistent catch of mackerel. The species is not their major source of income, but represents an important source of income as part of their diversified operations.

Other fishers take mackerel opportunistically when a school of mackerel passes, or have begun targeting mackerel since the warning on investment and/or open access benchmark date was put in place.

The matter is complicated by the fact that the January 1996 warning on investment to commercial fishers did not relate to the Gascoyne Zone of the fishery and as such, the Panel considered that the Gascoyne and southern zone of the fishery could not be expected to take this warning into account. The Panel therefore believes that the benchmark date of 3 November 1997, which was clearly signposted to all FBL holders, should be the appropriate benchmark date.

Traditionally the Department of Fisheries has considered consistent history of economic dependence on a fishery to be very important when access to a fishery is decided. The Panel also takes the view that this is an important component of access to the fishery.

The Panel's conclusion was that there must be proportional access to the commercial fishery, with a minimum unit holding before the operator is permitted to operate in the fishery.

The Panel is mindful of the cost to the Department if numbers of small trades of units are undertaken and of the compliance costs if there are a large number of operators in the fishery with small unit holdings. It therefore believes that if units are held, that are less than the minimum unit holding to fish in the fishery, these unit blocks must be traded as a whole, rather than individual units.

The Panel questions whether 100kg (approx 10 fish) or 350kg (approx 35 fish), as proposed by the Department for the Gascoyne and Pilbara Zones respectively, should be accepted as evidence of economic dependence on the fishery. Many recreational fishers would take more fish over a year than these proposed amounts.

The Panel believes that a minimum of 500 kg per year in the Gascoyne and 750 kg per year in the Pilbara (four out of seven years) does provide more appropriate evidence of economic dependence on the mackerel fishery. It believes that one tonne proportional access criteria (four out of seven years) for the Kimberley Zone is appropriate.

This will enable those with the greatest economic involvement in the fishery to continue their operations, while enabling those with smaller catch history to gain some economic return for their past endeavours and, at the same time, maintain cost effective management.

A number of submissions have been received from individuals who started fishing for mackerel in 1995, 1996 or 1997. The Panel takes the view that these operators commenced their operations in good faith, and that they have a case for access to the mackerel fishery, along with those who have consistent commercial catches of mackerel, even though they may not meet the minimum unit holdings discussed in Section 4.8.4..

#### ***Panel Recommendation 20***

*That criteria for access to the mackerel fishery be based on the following :*

1. *Kimberley Zone: Northern Territory border to 121° east longitude*
  - *Must have caught a minimum of one tonne each year for four out of seven years from 1 November 1990 to 31 October 1997; or*
  - *Must have caught an average of a minimum of 1 tonne a year over seven years from 1 November 1990 to 31 October 1997.*
2. *Pilbara Zone: 121° east longitude to 114° east longitude*
  - *Must have caught a minimum of 750kg each year for four out of seven years from 1 November 1990 to 31 October 1997; or*
  - *Must have caught an average of a minimum of 750kg a year over seven years from 1 November 1990 to 31 October 1997.*
3. *Gascoyne Zone: 114° east longitude to 26°30' south latitude*
  - *Must have caught a minimum of 500kg each year for four out of seven years from 1 November 1990 to 31 October 1997; or*
  - *Must have caught an average of a minimum of 500kg a year over seven years from 1 November 1990 to 31 October 1997.*

#### ***Panel Recommendation 21***

*That the allocations based on the above access criteria be distributed proportionately to a Total Allowable Commercial Catch whereby the catches of each boat which meets the criteria are averaged out over seven years and that average is totalled. The proportion of each boat's average annual catch to the total average catch is the boat's proportional access to the fishery.*

***Panel Recommendation 22***

*That each Zone of the fishery be unitised, with one unit equal to 250kg in each Zone. If the remainder of a person's access does not divide into 250kg, then the units will be rounded up or down to the nearest multiple of 250kg.*

**4.13.6 Conversion rates**

The Panel investigated the conversion rate the Department uses when establishing the whole weight of the fish caught. The Panel understands that conversion factors being assigned to Spanish and other mackerel species have recently been revised as a result of improved scientific information flowing from the new Spanish mackerel research project.

These data have enabled specific factors to be used for mackerel species, rather than the previous default conversion factors for finfish in general, based on typical snapper species that have historically dominated finfish production.

The Panel considers that the 'new' conversion rates, based on more accurate conversion factors should be used when considering criteria for access to the fishery. The Panel notes that previous data have been converted to reflect an accurate picture of the historical catch data for mackerel.

***Panel Recommendation 23***

*That the following conversion rates be used when assessing the landed weight of product for criteria for access to the mackerel fishery :*

*Whole weight = head/gutted weight (kg) x 1.176*

*Whole weight = gutted/gilled weight (kg) x 1.048*

*Whole weight = fillet weight (kg) x 1.608*

**4.14 Duration of permits**

The Panel agrees with this clause that a permit expires on 31 December next following the date of grant or renewal. This will bring the fishery into line with most other fisheries and as the mackerel season runs from around April to November, will allow operators time to make business and licensing decisions.

**4.15 Fees**

Under the Cole-House Agreement, the proposed mackerel fishery will be considered a minor commercial fishery, not subject to full cost recovery. The Panel was therefore very aware that criteria for access and management arrangements put in place would have to be cost effective, while ensuring the sustainability of the mackerel resource and equity of access.

Cost recovery applicable to minor commercial fisheries under Integrated Project and Activity-based Costing (IPAC) is approximately 2.5 per cent of the gross value of product. Taking all mackerel into account, the 1999/2000 value of the fishery was around \$2 million, so around \$50,000 would be recovered in permit fees.

#### **4.16 Items that must be specified on a permit**

The Panel agrees with most of the items specified in this section of the draft management plan. However, it believes that quota and effort units should also be specified on the permit.

##### ***Panel Recommendation 24***

*That the number and value of units be specified on the permits where appropriate.*

#### **4.17 Prohibition of fishing methods in the fishery**

As hand lining and trolling are fishing methods used in the fishery the Panel agrees with this clause in the Draft Management Plan.

#### **4.18 Use of boats**

The Panel agrees with this clause in the Draft Management Plan. This clause proposed that only authorised boats may be used in the fishery or a particular zone of the fishery.

#### **4.19 Auxiliary boats**

Dories used in conjunction with a 'mother boat' have traditionally been used to take mackerel in the Kimberley for reasons of isolation. The Panel agrees that dories must not be greater than 5.5 metres.

The Panel believes that dory use in conjunction with a mother boat should be restricted to the Kimberley Zone of the fishery as dories increase the fishing power of the 'mother boat'. The current access of the Kimberley-based dories is restricted to the Kimberley area by licence condition, and the Panel believes that these licence conditions, including the provisions which make them non-transferable, should remain in place.

Carrier boats assist in increasing the fishing power of a boat, because it means they can spend more time fishing in productive grounds. Their use would also increase compliance difficulties. The Panel therefore feels that the use of carrier boats would not be in the best interests of the fishery.

**Panel Recommendation 25**

*That:*

- (a) the dories/dinghies already in use in the Kimberley continue to be managed in accordance with their current licence conditions;*
- (b) dories/dinghies fishing in the mackerel fishery continue to be managed by licence condition on a case by case basis; and*
- (c) use of dories/dinghies in conjunction with a 'mother boat' should only be permitted in the Kimberley Zone of the mackerel fishery.*

**Panel Recommendation 26**

*That carrier boats should not be used in the mackerel fishery.*

## **4.20 Requirements to install an Automatic Location Communicator (ALC)**

This clause should remain, even though in some zones of the fishery Automatic Location Communicators (ALCs) or the Vessel Monitoring System (VMS) will not be used. This clause enables the Department to ensure they can be used if necessary for compliance purposes.

## **4.21 Records**

The Panel agrees it is important that good records should be kept and supports this proposal in the Draft Management Plan.

## **4.22 Logbooks**

The Panel takes the view that logbooks are a very important research tool. It supports this clause in the Draft Management Plan that research logbooks are kept and are compulsory.

## **4.23 Offences and major provisions**

The Panel agrees with the major offences proposed in the Draft Management Plan, and takes the view that any further provisions are a Department of Fisheries compliance decision.

## **SECTION 5 USE OF CHARTER BOATS**

---

Although outside the scope of its terms of reference, the Panel would like to express its concern about charter boat fishing for mackerel.

Charter boats have the ability to take large amounts of mackerel (within recreational bag limits) and have a detrimental impact on the stock.

## **SECTION 6 CONCLUSION**

---

The Panel's brief was to make recommendations to the Executive Director of the Department of Fisheries on the allocation of access to the commercial sector of the mackerel fishery and to recommend future management arrangements.

The Panel's management proposals require an explicit decision on catch levels and/or fishing effort for the commercial fishery, but this should not be seen as usurping allocations arising from the Toohey process.

During its deliberations on the commercial mackerel fishery the Panel considered two issues to be of major importance and hopes the report reflects these priorities:

1. The sustainability of the mackerel stocks, as without this there would be no fishery.
2. Equity and fairness issues in the allocation process for the commercial sector of the mackerel fishery.

As a result of this, the Panel felt that a unitised system of management, preferably a quota management system, would be the most appropriate form of management for the mackerel fishery. Unitised management provides for a total allowable commercial catch, which ensures that business decisions can be made with some degree of certainty.

This is particularly so with a quota management system. It also ensures that the commercial catch in the fishery is not open-ended and therefore addresses the objective of sustainability. Fairness and equity issues are dealt with in a unitised fishery, because fishers with a small proportion of the catch, who may have diversified fishing operations, are taken into account.

The Panel was conscious that the mackerel fishery is a minor commercial fishery in terms of cost recovery. As a result, it proposed there be a minimum unit holding of five per cent before any operators can fish in the fishery.

It also proposed that any new operators in the fishery should hold at least five per cent of the units before they gain access. This will ensure that the number of operators in the fishery is kept at a manageable level, while ensuring that those currently most economically dependent on the fishery can continue in the fishery.

The Panel would like to thank members of the public, industry and the peak industry bodies, the Western Australian Fishing Industry Council and Recfishwest, for their input into the deliberations of the Panel.

Signed



D Davies (Chairman)

Signed



K Newbold

Signed



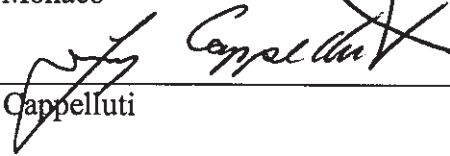
G Campbell

Signed



P Monaco

Signed



T Cappelluti



## APPENDICES

---

### Appendix 1 Mackerel Independent Advisory Panel (MIAP)

#### Purpose:

To provide advice to the Executive Director on:

- The most appropriate allocation (access criteria) system within the fishery; and
- A draft management plan.

The MIAP is advisory in nature and decisions in relation to allocations and the content of the management plan will be ultimately made by the Minister and the Executive Director in accordance with their statutory responsibilities under the *Fish Resources Management Act 1994*.

#### Objectives for the Fishery:

The Department of Fisheries has determined that the following objectives will apply to the management of the commercial mackerel fishery:

- To stabilise catch levels and if necessary, due to concerns on overexploitation of mackerel stocks, cut back fishing effort to levels consistent with maintenance of healthy mackerel stocks;
- A regulatory framework for licence holders that encourages economic efficiency;
- As the fishery will be a non-cost recovered fishery in the short-to-medium term the costs of management and compliance shall be minimised in so far as practicable; and
- Ensure that the exploitation of mackerel stocks and related matters are conducted in a manner consistent with the principles of Ecologically Sustainable Development.

#### Operational Guidelines:

The Panel is required to provide recommendations to the Executive Director on:

1. A method of determining who should be eligible to receive permits in the mackerel fishery under an interim management plan; and
2. Given that this fishery will be non-cost recovered, a management plan that minimises compliance and management costs.

In making these recommendations the Panel is required in particular to:

1. Review submissions to the Executive Director on earlier proposals for the management of the fishery;
2. Consult with those engaged in mackerel fishing on issues associated with allocation of authorisations to ensure that operators are treated on a fair and equitable basis in the allocation process;
3. Consult with operators in regard to a management plan that minimises compliance and management costs but is effective in regard to the objectives for the fishery;

4. Identify and include in the allocation process any exceptional circumstances that should be taken into account;
5. Identify the data necessary to support the methods recommended and the most cost effective and appropriate methods of collection and verification of that data;
6. Explain and justify the recommendations to the Executive Director; and
7. Provide advice to the Executive Director on the implementation of the recommendations.

**Process:**

The process to be followed by the Panel includes the following tasks and responsibilities:

1. The Department of Fisheries will provide a factual brief which includes the following information on:
  - Details of existing management arrangements in the fishery;
  - Details of the existing fishing concessions (if relevant) in the fishery; and
  - Details of past advice on future management arrangements for mackerel.
2. The Panel will meet as required and invite submissions on any new information over and above previous submissions from operators and others with an interest in the fishery.
3. The Panel will consult directly with fishing operators and others as appropriate.
4. The Panel will provide formal advice to the Executive Director on the recommended allocation system and management arrangements.
5. The Panel may seek the Department of Fisheries assistance in generating alternative allocation and/or management outcomes for consideration by the Panel.
6. The Department of Fisheries will make the Panel's advice publicly available after consideration of the recommendations by the Executive Director.
7. Maintain full records of the panel process.

**Interpretion of fairness and equity when management arrangements change:**

1. There will be a right of appeal for those seeking access to the fishery.
2. The Panel considers the question of unitisation and proportionality in the determination of authorisations.
3. The Panel consider the practicality of allocating across a broad range of history.
4. The Panel consider the practicality of separate types of management across the zones.

## **Appendix 2 Draft Management Plan**

### **DRAFT MANAGEMENT PLAN**

**This draft Management Plan was prepared by the Fisheries Department for the purpose of facilitating consultation in respect of the proposal by the Minister For Fisheries to determine a Management Plan for the Mackerel Interim Managed Fishery.**

### **FISH RESOURCES MANAGEMENT ACT 1994**

### **MACKEREL FISHERY (INTERIM) MANAGEMENT PLAN 2000**

#### Arrangement

#### **Part 1 - Preliminary**

1. Citation
2. Commencement
3. Cessation
4. Interpretation
5. Procedure before this Plan may be amended or revoked

#### **Part 2 - The Fishery**

6. Identification of the Fishery
7. Declaration
8. Areas

#### **Part 3 - General regulation of fishing**

9. Persons prohibited from fishing in the Fishery
10. Prohibition on selling, dealing in or purchasing mackerel
11. Closure of areas within the Fishery

#### **Part 4 - Permits**

12. Permits
13. Criteria for the grant of a Permit
14. Duration of Permits
15. Fees
16. Items that must be specified on a permit

**Part 5 - Use of gear and boats**

17. Prohibition on fishing methods in the Fishery
18. Use of boats
19. Auxiliary boats
20. Requirement to install an Automatic Location Communicator

**Part 6 -Miscellaneous**

21. Records
22. Logbooks
23. Offences and major provisions

**Schedules**

- Schedule 1 - Description of the Fishery  
Schedule 2 - Areas of the Fishery  
Schedule 3 - Fees

**FISH RESOURCES MANAGEMENT ACT 1994**

**MACKEREL FISHERY (INTERIM) MANAGEMENT PLAN 2000**

FD 2242/00[365]

Made by the Minister under section 54.

**Part 1 - Preliminary**

**Citation**

1. This plan may be cited as the *Mackerel Fishery (Interim) Management Plan 2000*.

**Commencement**

2. This plan will commence operation on 1 January 2001.

**Cessation**

3. This plan will cease to have effect on 31 December 2005.

**Interpretation**

4. In this management plan, unless the contrary intention appears -

“authorised boat” means -

- (a) a licensed fishing boat, the name, licensed fishing boat number and length of which are specified in a permit; or
- (b) a boat specified in a written authority under regulation 132 where that boat is to be used in place of a boat described in (a);

“Commonwealth Fishing Boat Licence” means a licence issued pursuant to section 9 of the *Fisheries Act 1952* of the Commonwealth;

“Commonwealth Fishing Permit” means a fishing permit issued pursuant to section 32 of the *Fisheries Management Act 1991* of the Commonwealth;

“auxiliary boat” means a licensed fishing boat used in conjunction with a mother boat and both boats are specified on the same permit;

“Fishery” means the Mackerel Interim Managed Fishery identified in clause 5;

“fishing boat licence” means a licence referred to in regulation 117 of the regulations;

“licensed fishing boat number” has the same meaning as defined in the regulations;

“mackerel” means all fish of the genera *Scomberomorus*, *Grammatorcynus* and *Acanthocybium*;

“measured length” means the measured length of the authorised boat as defined by and determined in accordance with the Department of Transport Instruction to Surveyors notice 7/87 (reworked 1994) effective 21 September 1994 as reworked or superseded from time to time;

“mother boat” means the licensed fishing boat used primarily for or in conjunction with fishing under the authority of a permit;

“permit” means an interim managed fishery permit which authorises a person to fish in the Fishery;

“regulations” means the *Fish Resources Management Regulations 1995*;

“statutory fishing returns” means -

- (a) a written return made under and in accordance with section 18 of the *Fisheries Act 1905* and furnished to the Western Australian Fisheries Department;
- (b) a return made under and in accordance with regulation 64 of the regulations;
- (c) a “Northern and Western Non Trawl Fisheries Catch (Landings) Record” applicable to all fish species excluding tuna and billfish which was required by the *Fisheries Act 1952* (Commonwealth) or the *Fisheries Management Act 1991* (Commonwealth) as the case may be, to be completed by the holder of a Commonwealth Fishing Boat Licence or Commonwealth Fishing Permit when fishing off the north coast of Western Australia east of 120° east longitude.

#### **Procedure before this Plan may be amended or revoked**

5. For the purposes of section 65 of the Act, all the permit holders of the Fishery are the persons to be consulted before this management plan is amended or revoked.

## **Part 2 - The Fishery**

### **Identification of the Fishery**

6. The Fishery to which this Plan relates is the fishing for mackerel by any means in the waters described in Schedule 1.

### **Declaration**

7. The Fishery is an interim managed fishery.

### **Areas**

8. The Fishery is divided into the three Areas described in Schedule 2.

## **Part 3 - General regulation of fishing**

### **Persons prohibited from fishing in the Fishery**

- 9.(1) Subject to subclause (2), a person must not fish in the Fishery -
  - (a) other than in accordance with this Plan; and
  - (b) unless the person is the holder of a permit or a person acting on the permit holder's behalf.
- (2) A person fishing in accordance with the Act for a non commercial purpose may fish for mackerel in the waters described in Schedule 1.
- (3) A person must not be, or act as, the master of any authorised boat unless that person is the holder of the relevant permit or is authorised by the holder of the relevant permit to act on the permit holder's behalf.

### **Prohibition on selling, dealing in or purchasing mackerel**

10. A person must not sell, deal in or purchase any mackerel taken from the Fishery unless the fish were taken by a person who holds a commercial fishing licence issued pursuant to the regulations and the fish were taken under the authority of a permit.

### **Closure of areas within the Fishery**

- 11.(1) The Executive Director may, by notice published in the Gazette, prohibit fishing in any part of the Fishery for the period specified in the notice if, in the opinion of the Executive Director, the prohibition is required in the better interests of the Fishery.
- (2) A notice made in accordance with subclause (1) -
- (a) may only be made after consultation with all the licence holders;
  - (b) may be made to apply at all times or at any specified time; and
  - (c) revokes any previous notice made under that subclause.
- (3) A person must not fish for mackerel in any part of the Fishery at a time when fishing in that part of the Fishery has been prohibited by a notice made under subclause (1).

### **Part 4 - Permits**

#### **Permits**

12. A permit may authorise the holder of that permit, or a person acting on that person's behalf, to fish in Area 1, Area 2 or Area 3 of the Fishery or any combination of those Areas.

#### **Criteria for the grant of a permit**

- 13.(1) The criteria to be satisfied before the Executive Director may grant a person a permit to fish in Area 1 of the Fishery are that -
- (a) the person is the holder of a fishing boat licence and in respect of the boat specified on that licence, statutory fishing returns for the period commencing 1 November 1992 and ending 31 October 1997 were received by the Department prior to 31 December 1998;
  - (b) the statutory returns referred to in paragraph (a) recorded a catch of 10 or more tonnes whole weight of mackerel by line in waters off the Western Australian coast as described as Area 1 of Schedule 2 in each of any four years during the period commencing 1 November 1992 and ending 31 October 1997; and
  - (c) the person applies for a permit before 31 December 2000.



- (2) The criteria to be satisfied before the Executive Director may grant a person a permit to fish in Area 2 of the Fishery are that -
- (a) the person is the holder of a fishing boat licence and in respect of the boat specified on that licence, statutory fishing returns for the period commencing 1 November 1992 and ending 31 October 1997 were received by the Department prior to 31 December 1998;
  - (b) the statutory returns referred to in paragraph (a) recorded a catch of 4.5 or more tonnes whole weight of mackerel by line in waters off the Western Australian coast as described as Area 2 in Schedule 2 in each of any four years during the period commencing 1 November 1992 and ending 31 October 1997; and
  - (c) the person applies for a permit before 31 December 2000.
- (3) The criteria to be satisfied before the Executive Director may grant a person a permit to fish in Area 3 of the Fishery are that -
- (a) the person is the holder of a fishing boat licence and in respect of the boat specified on that licence, statutory fishing returns for the period commencing 1 November 1992 and ending 31 October 1997 were received by the Department prior to 31 December 1998;
  - (b) the statutory returns referred to in paragraph (a) recorded a catch of 1 or more tonnes whole weight of mackerel by line in waters off the Western Australian coast as described as Area 3 in Schedule 2 in each of any four years during the period commencing 1 November 1992 and ending 31 October 1997; and
  - (c) the person applies for a permit before 31 December 2000.

### **Duration of permits**

14. A permit expires on 31 December next following the date of grant or renewal.

### **Fees**

- 15.(1) The fee set out in Part 1 of Schedule 3 opposite a particular type of application is the fee to be paid to make that application.
- (2) The fee set out in Part 2 of Schedule 3 is the fee to be paid in respect of the grant or renewal of a permit.
- (3) Where a licence is renewed as provided under section 139(1) of the Act an additional fee of 20% of the fee payable on the issue of the licence is payable by way of penalty.

**Items that must be specified on a permit**

16. A permit granted or renewed in respect of the Fishery must specify the following -
- (a) name and business address of the holder of the permit;
  - (b) name, licensed fishing boat number and the measured length of any licensed fishing boat which may be used for or in connection with fishing in the Fishery under the authority of that permit;
  - (c) the permit number;
  - (d) the period for which the permit is in force;
  - (e) the name of the interim managed fishery to which the permit refers;
  - (f) the Area or Areas of the Fishery where the holder of the permit is authorised to fish;
  - (g) any conditions imposed on the permit by the Executive Director.

**Part 5 - Use of gear and boats**

**Prohibition of fishing methods in the Fishery**

17. A person must not fish in the Fishery by any means other than by -
- (a) a line to which is attached not more than one hook or one set of interlinked or ganged hooks with bait attached to the hook or hooks; or
  - (b) a line to which is attached not more than one lure with hooks attached to the lure only.

**Use of boats**

- 18.(1) A person must not use a boat to fish in the Fishery unless the boat is an authorised boat.
- (2) A person must not operate an auxiliary boat in the Fishery if that boat is greater than 5.5 metres in length.
  - (3) The master of an auxiliary boat must not permit that boat to be more than 5 nautical miles from the associated mother boat at any time it is in the waters of the Fishery.

- (4) A person must not fish under the authority of a permit in an Area of the Fishery if that Area is not specified on that permit.

### **Auxiliary boats**

- 19.(1) An auxiliary boat must not be used to fish in Area 2 or Area 3 of the Fishery.
- (2) A permit which authorises the holder to fish in Area 1 of the Fishery must not specify more than 3 auxiliary boats that may be used under the authority of that permit.
- (3) The total maximum number of auxiliary boats that may be authorised to be used in Area 1 of the Fishery is 9.

### **Requirement to install an Automatic Location Communicator**

- 20.(1) For the purpose of this clause -  
“approved” and “approved person” have the same meaning as provided for in regulation 55A of the regulations;  
“authorised boat” means -
  - (a) for a boat authorised to be operated in Area 1, the mother boat; and
  - (b) for a boat authorised to be operated in Area 2 and/or Area 3 but not Area 1, the boat specified on the permit.
- (2) The Executive Director may, by notice in writing to the holder of a permit, prohibit fishing under the authority of that permit unless -
  - (a) the authorised boat specified on that permit has an ALC installed in accordance with the approved directions for use and by an approved person; and
  - (b) the ALC has been serviced in accordance with the approved directions for use, by an approved person and at the intervals specified by the Executive Director in the approved directions for use.
- (3) If, in accordance with subclause (2), an ALC has been fitted to the authorised boat, the holder of the permit must give a legible copy of the approved directions for use to the master of that authorised boat.
- (4) If a notice has been given pursuant to subclause (2) then it is a condition of the permit that -
  - (a) the authorised boat must not be used by the holder of the licence or any person acting on that person’s behalf unless an ALC is fitted to the boat

and is being used in the manner specified in the approved directions for use;

- (b) regulation 55C of the regulations are complied with at all times.
- (5) A reference to an Area in the approved directions for use referred to in subclause (2) is a reference to the relevant Area as described in Schedule 2.

## Part 6 - Miscellaneous

### Records

- 21.(1) The holder of a licence must, at any time when any direction is given to a person that the person is, or is not, to fish on the licence holder's behalf, make a record in a form approved by the Executive Director of the following -
  - (a) the full name of the person to whom the direction was given;
  - (b) the full business address of the person to whom the direction was given;
  - (c) the number of the commercial fishing licence held by the person to whom the direction was given;
  - (d) the time and date the direction was given; and
  - (e) whether the direction was oral or in writing.
- (2) The holder of a licence must keep safe and secure a record made in accordance with subclause (1) together with a copy of any written direction referred to in that record.

### Logbooks

- 22.(1) The Executive Director may, by notice in writing, direct the holder of a permit to keep a logbook of fishing activity conducted in the Fishery under the authority of that permit.
- (2) A logbook must be in a form approved by the Executive Director.
- (3) If, under subclause (1) the Executive Director has given a notice to the holder of a permit, the holder of that permit must give a legible copy of that notice to the master of the boat that is specified on that permit.
- (4) If a notice has been given pursuant to subclause (1) then it is a condition of the permit that the master of the boat -
  - (a) uses the relevant form as approved by the Executive Director;

- (b) completes and sends the completed form at the times and to the place as specified in the form.

### **Offences and major provisions**

23. A person who contravenes a provision of -

- (a) clause 9, 10, 11, 17, 18, 19, 20; or
- (b) clause 21, 22,

commits an offence and for the purposes of section 75 of the Act the offences specified in paragraph (a) are major provisions.

### **Schedule 1 Description of the Fishery**

All the waters of the Southern Ocean, the Indian Ocean and Timor Sea.

### **Schedule 2 Areas of the Fishery**

Area 1 - All waters of the Timor Sea and the Indian Ocean off the north coast of Western Australia on the landward side of the Australian Fishing Zone boundary and east of a line commencing at the intersection of the high water mark on the coastline and 120° 00' east longitude and extending north from that point along the meridian to the boundary of the Australian Fishing Zone.

Area 2 - All waters of the Indian Ocean off the north west coast of Western Australia bounded by a line commencing at the intersection of the high water mark on the coastline and 114° 00' east longitude (Jurabi Point); thence extending north along the meridian to the boundary of the Australian Fishing Zone; thence generally in a north westerly direction along the Australian Fishing Zone boundary to where it intersects with 120° 00' east longitude; thence south along the meridian to where it intersects with the high water mark on the coastline of Western Australia; thence generally south westerly along the mean high water mark back to the commencement point.

Area 3 - All waters of the Indian Ocean and the Southern Ocean off the west and south coasts of Western Australia bounded by a line commencing at the intersection of the high water mark on the coastline and 114° 00' east longitude; thence extending north along the meridian to the boundary of the AFZ; thence generally in a south westerly; thence southerly; thence in an easterly direction along the AFZ boundary to where it intersects with 129° east longitude; thence north along the meridian to the intersection of the coastline of the south coast at the high water mark; thence generally easterly and then northerly along the high water mark to the commencement point.



## Appendix 3 Research Advice



Dear Fiona,

### **Re: Spanish Mackerel**

The proposed Spanish mackerel fishery does not meet the usual criteria for catch quota (ITQ) management for the following reasons:

1. These types of pelagic species generally have highly variable recruitment leading to significant natural variations or cycles in catch.
2. The fishery will certainly develop into a multi-species operation thus requiring multiple TACs and assessments.
3. The fishery operates over vast areas of coastline and generates product in a variety of forms, i.e. headed, gutted, filleted, etc., making quota reporting and tracking technically difficult, if not financially impossible.
4. The inability to predict future safe production (TAC) levels and time lags in assessment make the quota management process inherently unsafe at the breeding stock level.
5. The use of a catch quota control system for mackerel implies highly variable effort and hence fishing capacity (capital and operating) will be used unless the quota is set at an inefficient low level.

In contrast to the catch quota system the use of a total allowable effort (TAE) system (with individually transferable effort units) has the following feature:

1. The TAE management system is inherently safer in terms of breeding stock maintenance as it “self corrects” by automatically lowering catches and hence exploitation rates when periods of low abundance occurs.
2. The TAE set does not generally need to be altered radically from year to year, but can accommodate technology changes as they occur.
3. The increasing multi-species nature of the fishery can be accommodated without compromising compliance.
4. The overall cost of monitoring research is relatively low and can utilise voluntary data.
5. The compliance cost is relatively low utilising VMS technology.

6. The setting of a TAE implies steady input costs, both capital and operating, with revenue varying according to abundance.
7. ITEs (like ITQs) allow for increased aggregation of entitlements into more cost efficient fishery operations
8. TAE management for Spanish mackerel will be more compatible with the general fisheries management arrangements in WA's successful commercial fisheries and with likely future recreational management.

These are some of the basic differences and advantages for the Spanish mackerel fishery.



**JW Penn**  
**DIRECTOR – FISHERIES RESEARCH**



## **Appendix 4 Compliance Advice**

Andrew Bartleet, Department of Fisheries Regional Manager North, spoke to the Panel via a speakerphone. Points he made include:

- This is a very small fishery, with few full-time participants. The Kimberley is a large area, with many landing points, including one outside WA. This of particular concern with respect to options 2 and 3.
- ITQs would be difficult to determine with the limited research information available.
- From a compliance perspective, ITQs involve paper work, and control at point of landing.
- Landing points would need to be limited to ports where there are Fisheries officers; i.e. Carnarvon, Exmouth, Karratha and Broome. Catches could not be landed in Darwin because it is out of WA's jurisdiction, hence at-sea compliance would be needed.
- Mackerel caught in the north is predominantly filleted, so conversion rates would have to be used.
- He felt it would be difficult to justify the cost involved for such a small fishery. He emphasised that in the Northern Region there is the equivalent of half a Fisheries officer for compliance of all the minor commercial fisheries.
- It would not be possible for compliance officers to provide an accurate reflection of the catch in a quota fishery.
- He emphasised that in general he supports ITQs from the perspective of economics and business planning, but cannot see ITQs working in this instance.
- He expressed similar doubts about ITE with respect to days fished. He noted that there would still be a need for the Research Division to provide a target for catch, and a conversion formula, then the catch would need to be monitored.
- He noted that VMS can only provide information about location, the direction being travelled, and the speed of travel. He could not see how VMS could be used in the mackerel fishery, at reasonable cost, to provide information on the catch.
- He could not see how options 2 and 3 would be manageable from a compliance perspective. He considered that the simplest management would result from the use of traditional input controls and seasons, though he felt that a minimum oversight of the actual catch would be needed.
- From a compliance perspective, he would prefer days fished, with a low number of participants. An operator's share of the fishery would be based on previous catch history, and needing to buy up to get a share of the fishery to be able to operate.

## **Appendix 5 Matters the Mackerel Independent Advisory Panel believe should be considered when the Executive Director grants permits for the Mackerel Fishery and with respect to the capacity of the fishery and minimum unit holdings**

### **1.0 Granting of Permits - Exceptional Circumstances**

When a person does not meet the criteria for entry to the Mackerel Interim Managed Fishery and submits an application for a permit in the Fishery, the panel believes the Executive Director must consider whether there are any exceptional circumstances that should be taken into account when determining whether the applicant is granted access to the fishery.

The exceptional circumstances that the Panel believes should be taken into account are:

- The grounds of ill-health of the person making the application which prevented him from fishing for a minimum of two years during the criteria period.
- A total loss of fishing boat which prevented fishing for mackerel for a minimum of two years during the criteria period for access to the fishery.
- The applicant's demonstrated investment in the mackerel fishery, for the purposes of fishing primarily in the mackerel fishery with minimal interest in or by product of other fish, prior to January 1996 between 114° east longitude and the Northern Territory border.
- The applicant's demonstrated investment in the mackerel fishery, for the purposes of fishing primarily in the mackerel fishery with minimal interest in or by product of other fish, prior to 3 November 1997 south of 114° east longitude.

### **2.0 Allowable catches**

The *Mackerel Fishery (Interim) Management Plan 2003* should provide for the determination, prior to the start of any 'licencing year', of the total allowable catch for the Kimberley, Pilbara, and Gascoyne zones of the fishery. (It may also provide for the determination, prior to the start of any prior to the start of any 'licencing year', of the amount of fishing days that may be spent fishing in the fishery).

### **3.0 Minimum unit holdings**

The minimum unit holding principle is designed to ensure that any new entrant to the fishery first obtains a minimum level of access (five per cent of the units in the zone) before that person is able to fish in the fishery.

The application of the principle restricts competition to a degree. However, this restriction on competition is considered to be of an overall benefit by ensuring that permits confirm sufficient entitlement to function as viable business entities, which in turn reduces the likelihood of there being economic pressures for licensees to engage in unauthorised fishing in order to maintain viability.

If the principle is relaxed then the possibility exists for a significant increase in the number of operators in any area of the fishery, many of whom could be expected to be financially unviable or marginal.

The Panel believes that unless the unit holding is under one per cent of the unit holding in the zone, a person who met the criteria for access outlined in the plan should be granted a permit to fish in the fishery.

In administering the scheme of entitlements the units of access held by the 'special position permit holders' (those who hold between one and five per cent of the units in the Kimberley, Pilbara and Gascoyne zones) should be considered so that these rights are not diminished. It should also be noted that the Panel believes that where a 'special position permit holder' seeks to enjoy a benefit not previously held by him, then the general principles of the minimum unit holdings should be given effect.

**Appendix 6 News item from Western Fisheries,  
January 1996, p13**

## Investment warning for NW

COMMERCIAL fishers have been warned not to invest in the mackerel fishery or demersal line fishing off the Pilbara and Kimberley coasts.

The warning was given by the Minister for Fisheries, Monty House, who said the catch of Spanish mackerel off the north west coast had more than doubled between 1992 and 1994. During that time the catch had risen from 287 tonnes to 620 tonnes and fishing effort was continuing to increase.

'I am concerned that the mackerel population cannot sustain this level of fishing,' Mr House said. 'It is not an unlimited resource.'

'The mackerel found off north west Western Australia are part of one stock that stretches across the north of Australia and therefore are vulnerable to overfishing.'

The Fisheries Department is preparing a discussion paper on future management of the mackerel fishery off the

Pilbara and Kimberley coasts, due for release in early 1996.

With the closure of demersal line fishing off the Kimberley coast, east of 120° East longitude, Mr House has also advised fishers not to relocate demersal line fishing operations from elsewhere in WA to the Pilbara coast.

Action to tighten management of demersal fisheries off the State's north coast is largely in response to new scientific information.

Recent data from the Northern Territory on the age of the deepwater fish species off the north west of WA indicates that many of these fish live to over 20 years of age.

Fishers are taking these fish while the fish are young, and many fish have not reached sexual maturity.

Mr House said most fishers had not been aware of the problem and had merely been providing the size of fish demanded by the market. ■

## **Appendix 7 Department of Fisheries announcements on 'Benchmark Date for Wetline Fishing History' and 'New Study of fishing boat licence'**

Dear Licence holder

### **BENCHMARK DATE FOR 'WETLINE' FISHERY**

I am writing to advise you that the Minister has requested the Department undertake an assessment of the fishing activity against the Western Australian Fishing Boat Licences, that is, in the 'wetline fishery'.

A benchmark date of Monday 3 November 1997 has been set by the Minister in relation to the recognition of history within the fishery. Should changes in management result in a change in access arrangements, fishing history after 3 November 1997 may not be taken into account.

The assessment will include an analysis of catch data submitted through the Catch and Effort Statistical System managed by the Fisheries Department, the level of recreational fish take and an identification of particular fish resources at risk and any arising sustainability issues. In consultation with stakeholder groups, the Department will also examine the issues surrounding commercial access within the wetline fishery and make recommendations to the Minister on whether a formal review of management for this fishery is required.

This advice does not alter the benchmark date recently announced with respect to the Pilbara area, nor does it affect fishing under the authority of a managed or interim managed fishery authorisation.

The contact officer within the Department is Fiona Crowe. She can be contacted through (08) 9482 7333.



**PP Rogers**  
**EXECUTIVE DIRECTOR**

3 November 1997

Media release, 3 November 1997

## **New study of fishing boat licence**

The Fisheries Department has announced a study of fishing activity undertaken with Western Australia's fishing boat licence [FBL].

Fisheries Department Executive Director Peter Rogers said there had been community concern that what was commonly known as the 'wetline' fishery, had unrestricted access to a wide range of species.

Mr Rogers said that sustainability of species, such as dhufish, had been a concern.

The 'benchmark' date of 3 November, 1997 had been set – no 'wetline' fishing history after this date would be considered in the development of any new management arrangements for the fishery.

Fishermen with an FBL have been individually informed by mail today of the benchmark date.

"We will analyse all available information on this fishery, including catch data provided by commercial fishermen," Mr Rogers said.

"The analysis will also involve consulting stakeholder groups over issues affecting the fishery."

Most of the Western Australian commercial fishing fleet, about 1600 vessels, are holders of an FBL. Three-quarters of the commercial fishing fleet predominantly fish in the State's 29 managed fisheries while about 250 fishing boat licence holders rely on the 'wetline' fishery for their livelihood.

The fishery includes the use of hand lines, drop lines and hand-hauled netting.

Mr Rogers said the department would consult stakeholder groups on management options which would best address any sustainability or resource sharing issues.

He said the study and its benchmark date would not alter the arrangements for the review of line fishing off the Pilbara coast, nor did it affect fishing under a Managed or Interim Managed Fishery authorisation.

Mr Rogers said that he expected the study to be completed by early next year. The Minister for Fisheries, the Hon. Monty House, would then decide whether a formal review of the fishery would be undertaken.

## **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, Rottneest 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, Rottneest 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 Everall (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

**INTERIM MANAGEMENT  
ARRANGEMENTS FOR THE  
COMMERCIAL MACKEREL FISHERY**

**MINISTER'S RESPONSES  
TO THE FINAL REPORT OF THE  
MACKEREL INDEPENDENT  
ADVISORY PANEL  
(FISHERIES MANAGEMENT  
PAPER No. 164)**

**The Honorable Kim Chance MLC  
Minister for Agriculture, Forestry and Fisheries**

---

November 2002

---





## **1. INTRODUCTION**

---

Following extensive consultation, recommendations of the Mackerel Independent Advisory Panel (MIAP) and advice from the Department of Fisheries, I have approved a number of management arrangements for drafting into an Interim Management Plan for the Mackerel Fishery.

Two rounds of public consultation were undertaken by the Department of Fisheries prior to the establishment of the MIAP. The MIAP then undertook its own public consultation process. It held public meetings in Geraldton, Carnarvon, Karratha, Broome and Fremantle and accepted submissions from stakeholders.

I have decided to implement an Interim Management Plan for the commercial mackerel fishery, based on recommendations from the MIAP and research information including:

- Commercial catches have been at historically high levels in Western Australia but have been decreasing in the Kimberley.
- There are no significant levels of mixing of Spanish mackerel across long lengths of coastline (e.g. from Exmouth to Broome). However, despite limited alongshore mixing of juveniles and adults, genetic relationships are thought to span broader regions. Hence the effects of fishing in one zone are likely to have flow-on affects in the other zones.
- It would be inappropriate to manage the fishery by size limit alone, as mortality of released fish is likely to be high, as is mortality due to sharks, both of which may add substantially to the fishing pressure on the fish.
- This species schools in large numbers, in well-known locations, and hence can be captured in large quantities. Catch rates of schooling pelagic species can remain high until stock sizes have decreased significantly. This makes them vulnerable to fishing pressure.
- Long-term commercial mackerel fishers have raised concerns about the mackerel stocks.

It was also the view of the majority of the commercial and recreational fishers consulted during the process that the fishery should be managed.

The Government recognises that the mackerel fishery is important to both the recreational and commercial fishing sectors. However, the purpose of these arrangements is not to allocate the mackerel resource between the sectors but within the commercial sector. Resources sharing issues are subject to investigation in the Integrated Fisheries Management Review where alternative management frameworks and principles for allocating fish stocks to ensure maximum benefit to the community are examined.



**Kim Chance MLC**  
**MINISTER FOR AGRICULTURE, FORESTRY AND FISHERIES**



## **2. SUMMARY OF MANAGEMENT ARRANGEMENTS**

---

I have approved the following management arrangements for drafting into an Interim Management Plan for my final consideration:

- The plan will be called *Mackerel Fishery (Interim) Management Plan* and will commence operation on 1 January 2004 or as near to that date as is administratively possible.
- The plan will cease to have effect five years from the date of commencement, or earlier, if appropriate.
- The mackerel fishery will be zoned:
  - The Gascoyne-West Coast Zone, from Cape Leeuwin northwards to 114° East longitude,
  - The Pilbara Zone, from 114° East longitude to 121° east longitude; and
  - The Kimberley Zone, from 121° East longitude to the Northern Territory border.
- All zones will be managed under a quota management system, with the use of a Vessel Monitoring System (VMS), prior reporting and an option for the Executive Director to vary the mackerel fishing season.
- The Total Allowable Commercial Catch (TACC) for each zone of the fishery will be set by the Executive Director, after taking the best scientific and operational advice available to him to ensure the sustainability of the mackerel fishery.
- The TACC will not be subject to annual review and will be set for three to five years. However, biological reference points will be put in place and if they are reached in two consecutive years, the TACC will be reviewed.
- The legal minimum length of 90 cm for Spanish mackerel will remain.
- There will be a six-month season in each zone of the fishery. The Kimberley Zone from 1 June to 30 November and the Pilbara and Gascoyne-West Coast Zones from 1 April to 30 September.
- The ports/anchorages of Denham, the Blow Holes, Carnarvon, Kalbarri, Geraldton, Dongara, Jurien and Fremantle must be used to unload mackerel taken in the Gascoyne-West Coast Zone and the Department of Fisheries' Regional Offices will manage the Catch and Disposal Records.
- The ports/anchorages of Exmouth, Point Sampson, Onslow, Dampier, Port Hedland and Broome must be used to unload mackerel taken in the Pilbara Zone and the Department of Fisheries' Regional Offices will manage the Catch and Disposal Records.

- The ports/anchorages of Broome and Darwin must be used to unload mackerel taken in the Kimberley Zone and that the Catch and Disposal Records will be managed by the Department of Fisheries' Broome Regional Office and through a memorandum of understanding with the Northern Territory.
- Only permit holders in a particular Zone will be permitted to unload mackerel in that Zone.
- The benchmark date for criteria to enter the fishery is 3 November 1997. A criteria period of seven years will be taken into account, from 1 November 1990 to 31 October 1997.
- Access to the Kimberley Zone mackerel fishery will be based on the following criteria:
  - Must have caught a minimum of one tonne each year for four out of seven years from 1 November 1990 to 31 October 1997; or
  - Must have caught an average of a minimum of one tonne a year over seven years from 1 November 1990 to 31 October 1997,as shown on the returns submitted to the Department of Fisheries.
- Access to the Pilbara Zone mackerel fishery will be based on the following criteria:
  - Must have caught a minimum of 750 kg each year for four out of seven years from 1 November 1990 to 31 October 1997; or
  - Must have caught an average of a minimum of 750 kg a year over seven years from 1 November 1990 to 31 October 1997,as shown on the returns submitted to the Department of Fisheries.
- Access to the Gascoyne-West Coast Zone mackerel fishery will be based on the following criteria:
  - Must have caught a minimum of 500 kg each year for four out of seven years from 1 November 1990 to 31 October 1997; or
  - Must have caught an average of a minimum of 500 kg a year over seven years from 1 November 1990 to 31 October 1997,as shown on the returns submitted to the Department of Fisheries.
- The proportion of each boat's catch to the sum of the catches of all boats that meet the criteria will determine that boat's proportional access to the fishery.
- Each zone of the fishery will be unitised, with the unit value being derived from the TACC for the Zone. The number and value of units will be specified on the permits.
- The following conversion rates will be used when assessing the landed weight of product for criteria for access to the mackerel fishery:
  - Whole weight = head/gutted weight (kg) x 1.176
  - Whole weight = gutted/gilled weight (kg) x 1.048
  - Whole weight = fillet weight (kg) x 1.608

- At the commencement date of the Interim Management Plan a minimum proportion of five per cent of the units in the Zone of the fishery must be held before an operator can fish in the fishery. Any new operators in the fishery must hold a minimum unit holding of ten per cent of the units to operate in the fishery.
- A person must not sell, deal in or purchase any mackerel taken from the fishery unless the fish were taken by a person who holds a permit in the fishery.
- No auxiliary boats/dories are to be used in the Gascoyne-West Coast or Pilbara Zones of the fishery.
- Dories will be allowed in the Kimberley Zone of the fishery.
- A person fishing from an authorised boat in the fishery must not use a reel other than a manually powered reel to set, haul or pull gear.
- Carrier boats are not to be used in the Mackerel Fishery.
- The Department of Fisheries is to negotiate with the Commonwealth to exclude bycatch of mackerel in other adjacent Commonwealth Managed Fisheries and to provide separate advice to the Minister on this issue.
- Completion of research logbooks will be a compulsory requirement for all permit holders.

### **3. EXPLANATION FOR MANAGEMENT ARRANGEMENTS THAT DIFFER FROM THE PANEL'S RECOMMENDATIONS**

---

Not all of the above management arrangements approved for drafting into the Interim Management Plan were recommended by the MIAP.

I have approved most of the MIAP's 30 recommendations. Where I have varied from the MIAP's recommendations I have provided an explanatory note (see attached table).

MIAP RECOMMENDATIONS	MINISTER'S COMMENTS
<p><b><i>MIAP Recommendation 1:</i></b></p> <p><b><i>That the legal minimum length of 90 cm for Spanish mackerel remains.</i></b></p>	<p>Approved.</p>
<p><b><i>MIAP Recommendation 2:</i></b></p> <p><b><i>That the citation be amended to incorporate the name of the proposed plan as being Mackerel Fishery (Interim) Management Plan 2003.</i></b></p>	<p>The citation will be amended to incorporate the name of the proposed plan as being the Mackerel Fishery (Interim) Management Plan 2004. For the reasons detailed below under recommendation 3, the plan will commence operation on 1 January 2004 or as near to that date as is administratively possible.</p>
<p><b><i>MIAP Recommendation 3:</i></b></p> <p><b><i>That the plan commence operation on 1 January 2003 or as near to that date as is administratively possible.</i></b></p>	<p>It is important that the process of placing the Mackerel Fishery under management is completed properly and consistently. The intention for the plan to commence in 2004 takes account of the Auditor General's report which called for ratification of catch records, the completion of the appeals process and sufficient time for all operators to ensure that they have appropriate technology fitted, e.g. VMS.</p> <p>This is a time consuming process, but will ensure that everyone is dealt with in a fair and equitable manner. The process may even take as long as 18 months. The process will be as follows:</p> <ol style="list-style-type: none"> <li>1. Drafting of legislation will take place;</li> <li>2. My signature will be sought on the legislation and I may require some further public consultation;</li> <li>3. Depending on whether more consultation is required, there will be further consideration and my final signature will be sought;</li> <li>4. The Interim Plan will be gazetted in the Government Gazette;</li> </ol>

	<ol style="list-style-type: none"> <li>5. The Interim Plan will be tabled in Parliament;</li> <li>6. Ratification of existing catch records will be undertaken by the Department;</li> <li>7. Applicants will be invited to apply for a permit in the fishery;</li> <li>8. Access will be granted to those who meet the criteria for access to the fishery;</li> <li>9. Appeals for access will be heard;</li> <li>10. Access to the fishery will be finalised and permits showing the units of entitlement issued; and</li> <li>11. The Total Allowable Commercial Catch (TACC) determined for each Zone and the extent of entitlement determined from the unit value.</li> </ol>
<p><b><i>MIAP Recommendation 4:</i></b></p> <p><b><i>That the plan ceases to have effect five years from the date of commencement.</i></b></p>	<p>Approved.</p>
<p><b><i>MIAP Recommendation 5:</i></b></p> <p><b><i>That appropriate interpretation is examined when the plan is being drafted.</i></b></p>	<p>Approved.</p>
<p><b><i>MIAP Recommendation 6:</i></b></p> <p><b><i>That the mackerel fishery be zoned.</i></b></p>	<p>Approved.</p>

<p><b>MIAP Recommendation 7:</b></p> <p><i>That the zone south of 26° 30' south latitude remains in the fishery, but that there be no requirement to apply for a permit to fish for mackerel.</i></p>	<p>I have decided not to leave the southern zone of the mackerel fishery open access. The area between 26° 30' south latitude and Cape Leeuwin will be incorporated into the Gascoyne Zone of the commercial mackerel fishery to become the Gascoyne-West Coast Zone.</p> <p>I understand that, in the MIAP's view, the average commercial catch (14.5 tonnes in the criteria years) is so small in the southern zone that it does not warrant the management. However, last year there was a recruitment 'spike' in this area and larger commercial catches were recorded (43 tonnes). This has led to calls for management from the public and recreational sector in this area. See also recommendation 8 below.</p>
<p><b>MIAP Recommendation 8:</b></p> <p><i>That if commercial mackerel catches rise above 25 tonnes for two consecutive calendar years in the area south of 26° 30' south latitude, management of the fishery in this area should take place using the following criteria for access:</i></p> <ul style="list-style-type: none"> <li>• <i>Must have caught a minimum of 500 kg each year for four out of seven years from 1 November 1990 to 31 October 1997;</i></li> <li><i>or</i></li> <li>• <i>Must have caught an average of a minimum of 500 kg a year over seven years from 1 November 1990 to 31 October 1997.</i></li> </ul>	<p>The area between 26° 30' south latitude and Cape Leeuwin will be incorporated into the Gascoyne-West Coast Zone of the commercial mackerel fishery and the recommended criteria for access to the Gascoyne Zone will apply to the whole Gascoyne-West Coast Zone.</p> <p>The cost of initiating management of a 25 tonne fishery at a later stage would far outweigh the benefits. I would prefer this area (from 26° 30' south latitude to Cape Leeuwin) to be managed in the same zone as the Gascoyne from the commencement of the Interim Management Plan.</p> <p>It is important to bear in mind that any of the MIAP's recommendations that refer to the exclusion of the "southern zone", for example Recommendations 15 and 16, are subject to my decision to include this area in the Gascoyne-West Coast Zone.</p>

<p><b>MIAP Recommendation 9:</b></p> <p><i>That the Total Allowable Commercial Catch for each zone of the fishery be set by the Executive Director, after taking the best scientific and operational advice available to him to ensure the sustainability of the mackerel fishery.</i></p>	<p>Approved.</p>
<p><b>MIAP Recommendation 10:</b></p> <p><i>That the Kimberley Zone be managed under a quota management system, using an appropriate 'paper trail', a Vessel Monitoring System (VMS), a Memorandum of Understanding with the Northern Territory Government and an option of varying the mackerel fishing season.</i></p>	<p>Approved.</p>
<p><b>MIAP Recommendation 11:</b></p> <p><i>That if, for compliance and cost effectiveness reasons and the ability to enforce prosecutions under an MOU with the Northern Territory, a quota management system cannot be achieved within the objectives set out for the Panel, the Panel recommends the next best option would be a 'days fished' management regime, taking into account steaming time, weather, searching patterns and the use of dories when deciding on the number of days to be fished, and that VMS be used to monitor the number of days fished in the mackerel fishery in the Kimberley Zone.</i></p>	<p>The fishery will be managed under a quota management system as per Recommendation 10, using an appropriate 'paper trail', VMS, a Memorandum of Understanding with the Northern Territory Government and an option of varying the mackerel fishing season.</p> <p>I have approved the MIAP's preferred management regime of quota for the whole fishery. It is my preference to have a consistent and relatively simple management system across all zones of the fishery.</p>
<p><b>MIAP Recommendation 12:</b></p> <p><i>That the Pilbara and Gascoyne Zones be managed under a quota management system with an option of varying the mackerel fishing season.</i></p>	<p>Approved. All zones of the fishery will be quota-managed.</p>

<p><b>MIAP Recommendation 13:</b></p> <p><i>That the ports/anchorages of Denham, the Blow Holes and Carnarvon must be used to unload mackerel in the Gascoyne Zone and the ports of Exmouth, Point Sampson, Onslow, Dampier, Port Hedland and Broome must be used to unload mackerel taken in the Pilbara Zone.</i></p>	<p>It is necessary to have designated landing points in a quota-managed fishery so that catch can be monitored and recorded correctly for research and management purposes.</p> <p>The ports/anchorages of Denham, the Blow Holes, Carnarvon, Kalbarri, Geraldton, Dongara, Jurien and Fremantle must be used to unload mackerel in the Gascoyne-West Coast Zone.</p> <p>The ports/anchorages of Exmouth, Point Sampson, Onslow, Dampier, Port Hedland and Broome must be used to unload mackerel taken in the Pilbara Zone.</p> <p>The ports/anchorages of Broome and Darwin must be used to unload mackerel taken in the Kimberley Zone.</p> <p>The operation of Pilbara vessels landing catch in Broome will be monitored with the VMS and may require some specific rules. Catch landed in Darwin will be recorded according to a Memorandum of Understanding with the Northern Territory Government. A docketing system will be established to ensure the effective monitoring of the catch landed in Darwin.</p>
<p><b>MIAP Recommendation 14:</b></p> <p><i>That a minimum proportion of five per cent of the units in the Zone of the fishery must be held before an operator can fish in the fishery. If less than five per cent is held, units must be traded as a whole, rather than in separate unit trades.</i></p>	<p>Approved.</p>



<p><b>MIAP Recommendation 15:</b></p> <p><i>That mackerel should only be landed by permit holders in the proposed mackerel fishery, except in the Southern Zone.</i></p>	<p>I feel it necessary to clarify that there should be no landing of mackerel by commercial fishers that do not hold a permit to operate in the proposed mackerel fishery. I will reiterate that the management arrangements discussed here are for the commercial sector and do not form the basis for resource sharing discussions.</p>
<p><b>MIAP Recommendation 16:</b></p> <p><i>That a person must not sell, deal in or purchase any mackerel taken from the fishery unless the fish were taken by a person who holds a permit in the fishery, except in the Southern Zone of the fishery.</i></p>	<p>Approved for all zones of the fishery.</p>
<p><b>MIAP Recommendation 17:</b></p> <p><i>That the benchmark date of 3 November 1997 is adopted.</i></p>	<p>Approved.</p>
<p><b>MIAP Recommendation 18:</b></p> <p><i>That a criteria period of seven years be taken into account, from 1 November 1990 to 31 October 1997.</i></p>	<p>Approved.</p>
<p><b>MIAP Recommendation 19:</b></p> <p><i>That a Ministerial Guideline be issued which ensures that the Executive Director considers hardship cases or extenuating circumstances which prevented the operator from fishing in the mackerel fishery for any year of the criteria period or otherwise meant that the criteria could not be met.</i></p>	<p>Not approved. The MIAP have recommended, and I have approved, generous criteria for access to the fishery. I do not consider it necessary to produce a Ministerial Policy Guideline.</p> <p>There may be legal obstacles to using Guidelines outside of the criteria for access, as well as questions of how to allocate proportional access to the fishery based on such circumstances.</p>

<p><b>MIAP Recommendation 20:</b></p> <p><i>That criteria for access to the mackerel fishery be based on the following criteria:</i></p> <ol style="list-style-type: none"><li>1. <b><i>Kimberley Zone: Northern Territory border to 121° east longitude</i></b><ul style="list-style-type: none"><li>• <i>Must have caught a minimum of one tonne each year for four out of seven years from 1 November 1990 to 31 October 1997; or</i></li><li>• <i>Must have caught an average of a minimum of one tonne a year over seven years from 1 November 1990 to 31 October 1997.</i></li></ul></li> <li>2. <b><i>Pilbara Zone: 121° east longitude to 114° east longitude</i></b><ul style="list-style-type: none"><li>• <i>Must have caught a minimum of 750 kg each year for four out of seven years from 1 November 1990 to 31 October 1997; or</i></li><li>• <i>Must have caught an average of a minimum of 750 kg a year over seven years from 1 November 1990 to 31 October 1997.</i></li></ul></li> <li>3. <b><i>Gascoyne Zone: 114° east longitude to 26° 30' south latitude.</i></b><ul style="list-style-type: none"><li>• <i>Must have caught a minimum of 500 kg each year for four out of seven years from 1 November 1990 to 31 October 1997; or</i></li><li>• <i>Must have caught an average of a minimum of 500 kg a year over seven years from 1 November 1990 to 31 October 1997.</i></li></ul></li></ol>	<p>Approved.</p>
---	------------------

<p><b>MIAP Recommendation 21:</b></p> <p><i>That the allocations based on the above access criteria be distributed proportionately to a Total Allowable Commercial Catch whereby the sum of the catches of each boat which meets the criteria over seven years is totalled. The proportion of each boat's total catch to the total catch is the boat's proportional access to the fishery.</i></p>	<p>Approved.</p>
<p><b>MIAP Recommendation 22:</b></p> <p><i>That each zone of the fishery be unitised, with one unit equal to 250 kg in each zone. If the remainder of a person's access does not divide into 250 kg, then the units will be rounded up or down to the nearest multiple of 250 kg.</i></p>	<p>Each zone of the fishery will be unitised, with the unit value being proportional to the annual determined fishery capacity (in weight of fish). However, the Executive Director will set a Total Allowable Commercial Catch for each zone of the fishery, after taking the best scientific and operational advice available to him to ensure the sustainability of the mackerel fishery.</p>
<p><b>MIAP Recommendation 23:</b></p> <p><i>That the following conversion rates be used when assessing the landed weight of product for criteria for access to the mackerel fishery:</i></p> <p><i>Whole weight = head/gutted weight (kg) x 1.176</i>  <i>Whole weight = gutted/gilled weight (kg) x 1.048</i>  <i>Whole weight = fillet weight (kg) x 1.608.</i></p>	<p>Approved.</p>
<p><b>MIAP Recommendation 24:</b></p> <p><i>That the number and value of units be specified on the permits.</i></p>	<p>Approved.</p>

<p><b>MIAP Recommendation 25:</b></p> <p><b><i>That:</i></b></p> <p><b><i>(a) The dories/dinghies already in use in the Kimberley continue to be managed in accordance with their current licence conditions;</i></b></p> <p><b><i>(b) Dories/dinghies fishing in the mackerel fishery continue to be managed by licence condition on a case-by-case basis; and</i></b></p> <p><b><i>(c) Use of dories/dinghies in conjunction with a 'mother boat' should only be permitted in the Kimberley Zone of the mackerel fishery.</i></b></p>	<p>Approved. Specifications for the use of, and capacity of, dories in the Kimberley Zone will be discussed further with the relevant stakeholders.</p>
<p><b>MIAP Recommendation 26:</b></p> <p><b><i>That carrier boats should not be used in the mackerel fishery.</i></b></p>	<p>Approved.</p>
<p><b>MIAP Recommendation 27:</b></p> <p><b><i>That a person fishing from an authorised boat in the fishery must not use a reel other than a manually powered reel to set, haul or pull gear.</i></b></p>	<p>Approved.</p>

<p><b>MIAP Recommendation 28:</b></p> <p><b><i>That the following clauses in the Draft Mackerel Fishery (Interim) Management Plan 2000 be approved:</i></b></p> <ul style="list-style-type: none"> <li>▪ <b><i>Procedure before Plan may be amended and revoked</i></b></li> <li>▪ <b><i>Identification of the fishery</i></b></li> <li>▪ <b><i>Declaration</i></b></li> <li>▪ <b><i>Closure of zones within the fishery</i></b></li> <li>▪ <b><i>Permits</i></b></li> <li>▪ <b><i>Duration of Permits</i></b></li> <li>▪ <b><i>Fees</i></b></li> <li>▪ <b><i>Prohibition of fishing methods in the fishery</i></b></li> <li>▪ <b><i>Use of boats</i></b></li> <li>▪ <b><i>Requirements to install an Automatic Location Communicator</i></b></li> <li>▪ <b><i>Records</i></b></li> <li>▪ <b><i>Logbooks</i></b></li> <li>▪ <b><i>Offences and major provisions</i></b></li> </ul>	<p>Approved.</p>
<p><b>MIAP Recommendation 29:</b></p> <p><b><i>That you endorse the Department of Fisheries taking action to exclude bycatch of mackerel in other adjacent Commonwealth managed fisheries and provides separate advice to you on this issue following consultation with the relevant fisheries impacted.</i></b></p>	<p>Approved.</p>
<p><b>MIAP Recommendation 30:</b></p> <p><b><i>That completion of research logbooks is made a compulsory requirement for all permit holders.</i></b></p>	<p>Approved. Comprehensive research logbook information is necessary for effective monitoring of the fishery and the setting of the TACC.</p>