

**APPLICATION TO THE DEPARTMENT OF THE ENVIRONMENT,
WATER, HERITAGE AND THE ARTS ON THE
WESTERN AUSTRALIAN MACKEREL FISHERY**

*Against the Guidelines for the
Ecologically Sustainable Management of Fisheries*

August 2009



Government of Western Australia
Department of Fisheries



Fish for the future

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1. APPENDIX

- Appendix 1 State of the Fisheries Reports WA Mackerel (Interim) Managed Fishery 2004-2005, 2005-2006, 2006-07, 2007-2008
- Appendix 2 Consolidated *Mackerel Fishery (Interim) Management Plan 2004*
- Appendix 3 Map of the Mackerel Interim Managed Fishery

2. BACKGROUND

The purpose of this report is to update the Department of the Environment, Water, Heritage and the Arts (DEWHA) on changes in the Western Australian Mackerel (Interim) Managed Fishery (the Fishery) to enable the reassessment of the Fishery against the *Guidelines for Ecologically Sustainable Management of Fisheries*, under Part 13 and 13A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

2.1. Previous Assessment

In June 2004, the WA Department of Fisheries (DFWA) submitted an application to DEWHA (then Environment Australia) for assessment of the Fishery against the *Guidelines for the Ecologically Sustainable Management of Fisheries*, under Part 13 and 13A of the EPBC Act.

On 11 November 2004, the (then) Minister for the Environment and Heritage amended the list of exempt native specimens to include product taken in accordance with the *Mackerel Fishery (Interim) Management Plan 2004* (the interim plan), effectively declaring the Fishery as exempt from Part 13 and 13A of the EPBC Act for a period of 5 years. The exemption will expire on 11 November 2009.

The exemption came with 13 recommendations, focused on ensuring continued good management practices in the Fishery.

A copy of the DFWA application, the DEWHA assessment report and letter of approval are available on the DEWHA website.

<http://www.environment.gov.au/coasts/fisheries/wa/mackerel-fishery/index.html>

2.2. Re-assessment Process

This report details the progress against the 13 recommendations arising from the original ESD assessment, outlining what has been achieved in addressing each recommendation.

The following documentation has been attached to this application to assist the re-assessment process:

1. Copies of the mackerel fishery annual reports, published in the *State of the Fisheries reports* (2004-2005 to 2007-2008) (Appendix 1);
2. A copy of the consolidated *Mackerel Fishery (Interim) Management Plan 2004* (Appendix 2); and
3. A map of the Mackerel Interim Managed Fishery.

State of the Fisheries reports published since the original assessment (2004-2005 to 2007-2008) can be downloaded at <http://www.fish.wa.gov.au/docs/sof/>

3. CHANGES IN THE FISHERY SINCE LAST ASSESSMENT

3.1. Commercial Fishery

The *Mackerel Fishery (Interim) Management Plan 2004* (the interim plan) took effect on 1 August 2004, following the submission of the original application in June 2004. As such, DEWHA used the interim plan as the basis for its assessment of the Mackerel Fishery.

Over the past five years, a number of changes to the management arrangements have been implemented following the establishment of the interim plan. These arrangements have been implemented cooperatively between the Department and permit holders with a view to ensuring a sustainable fishery. Fisheries management, compliance and research services have been maintained in the fishery since the original ESD exemption was provided in November 2004.

Changes to the management arrangements for the fishery since November 2004 are reflected in amendments to the interim plan. Such amendments were drafted pursuant to section 54(2) of the *Fish Resources Management Act 1994* (the FRMA).

In summary, the interim plan amendments were gazetted to achieve a purpose and effect as follows-

Mackerel Fishery (Interim) Management Plan Amendment 2004 (amendment 1)

Amendment 1 introduced access fees for the 2005 licensing period. The fees were calculated in accordance with the formula for determining fees for non-cost recovered commercial fisheries agreed with the WA Fishing Industry Council (WAFIC).

Amendment 1 added Port Hedland to the list of authorised ports at which Area 1 permit holders may land their catch. The amendment also allowed Fisheries and Marine Officers to permit mackerel to be landed outside of the Area of the fishery to which access is held where exceptional circumstances arise.

Mackerel Fishery (Interim) Management Plan Amendment 2004 (amendment 2)

Amendment 2 was gazetted on 23 December 2005 and implemented substantial changes to the management of the fishery. Amendment 2 introduced an Individual Transferable Quota (ITQ) system from 1 January 2006, including setting Total Allowable Commercial Catches (TACCs) for each Area of the fishery, allocation of the entitlement to take quota in the form of units, and establishment of minimum unit holding requirements to operate in the fishery.

The TACCs implemented were as follows-

Area 1: mackerel other than broad-barred Spanish mackerel 205,000 kg (whole weight)¹;
 broad-barred Spanish mackerel 60,000 kg (whole weight);

¹ Expressing the quota in this way is designed to clearly delineate the entitlement for broad-barred (grey) Spanish mackerel to that species alone. In practice the expression "mackerel other than broad-barred" effectively defines the target species (narrow-barred Spanish mackerel), while requiring that any other species other than broad-barred (grey) Spanish Mackerel are acquitted with the narrow-barred Spanish mackerel quota.

- Area 2: mackerel other than broad-barred Spanish mackerel 126,000 kg (whole weight)¹;
broad-barred Spanish mackerel 60,000 kg (whole weight);
- Area 3: mackerel other than broad-barred Spanish mackerel 79,000 kg (whole weight)¹; and
broad-barred Spanish mackerel 60,000 kg (whole weight).

The TACCs described above were still in place for the 2009 fishing season. Amendment 2 required that all broad-barred Spanish mackerel be landed either whole or gilled and gutted only in order to assist DFWA compliance officers with monitoring and enforcement of the separate quotas for that species. The amendment also introduced catch weighing and reporting requirements and Vessel Monitoring System related notifications.

Mackerel Fishery (Interim) Management Plan Amendment 2006 (amendment 3)

Following the first call for applications for access to the fishery in 2004, DFWA was aware that a number of fishermen who may have met the entry criteria did not submit their applications before the due date or did not submit an application at all. Amendment 3 was gazetted on 11 August 2006 and provided for additional applications for permits to be considered. There was potential for 15 new permits to be granted for the fishery; 5 in Area 1 (Kimberley), 9 in Area 2 (Pilbara) and 1 in Area 3 (Gascoyne). 12 applicants were granted permits following the 'second round' application period and the new quota entitlements granted to those applicants were incorporated within the existing Total Allowable Commercial Catch for each area of the fishery.

Mackerel Fishery (Interim) Management Plan Amendment 2007 (amendment 4)

The interim plan was amended on 14 December 2007 to introduce the access fees for 2008 and 2009 fishing seasons.

Mackerel Fishery (Interim) Management Plan Amendment 2008 (amendment 5)

Amendment 5 was gazetted in June 2008. The amendment increased flexibility for permit holders within a sustainable fisheries management framework and preserved equity in the face of new permits being issued for the Fishery. It achieved this by:

- a) abolishing closed seasons as they were no longer a necessary tool to maintain sustainable and efficient management of the Fishery since quotas were put in place;
- b) permitted the heading of broad-barred Spanish mackerel as compliance experience over the last two seasons indicated it was not detrimental to the integrity of the quota management systems; and
- c) modified the minimum operating holding from a percentage of units to a real number rather than a percentage. The amendment ensured that pre existing permit holders were not disadvantaged as a result of the percentage share being reduced upon the issue of new permits. i.e. pre existing permit holders maintaining the ability to fish as they could prior to new permits being issued.

The interim plan expires on 31 December 2009. It is likely that the term of the interim plan will be extended for a further two years to provide the opportunity for a new management plan to be drafted.

3.2 Recreational Fishery

Charter and recreational fishers predominantly target Spanish (narrow-barred) mackerel, broad-barred (grey) mackerel, shark mackerel and wahoo. Specific daily bag limits and minimum size limits apply to these mackerel species and the following state-wide possession limits on fish taken by recreational fishers generally also apply-

- 20 kg of fillets of fish; or
- 10 kg of fillets of fish and one day's bag limit of whole fish or fish trunks; or
- two days' bag limit of whole fish or fish trunks.

A summary of the management arrangements currently in place for recreational mackerel species is provided in the following table.

Table 1. Bag and Size Limits for Recreational Mackerel Species

Bioregion	Mackerel Species	Daily Bag Limit	Minimum Size Limit (mm)
West Coast	Spanish	2	900
	Grey	2	750
	Shark	2	500
	Wahoo	2	900
Gascoyne/Pilbara/Kimberley	Spanish	2	900
	Grey	2	750
	Shark	4	500
	Wahoo	2	900

No further recreational surveys have been completed in the Kimberley, Pilbara, or Gascoyne since the last assessment. However, boat-based recreational survey data from 2005/06 are available for the west coast between Kalbarri and Augusta and the estimates derived from that survey show that boat-based recreational fishers took approximately 7 tonnes of Spanish mackerel on the west coast.

The estimate of the take of mackerel by charter operators is considered to be accurate because the operators are required to submit statutory fishing returns and must record species that are both kept and released. The estimated total charter catch of Spanish mackerel by charter operators statewide in 2007 was 9 tonnes, with just over half of the catch taken in the Pilbara/Kimberley.

The Minister for Fisheries announced changes to recreational fishing management in July 2009. While there are no further changes proposed to the current bag and size limits for the main four recreational mackerel species, a statewide recreational boat fishing licence will be introduced. The annual licence will be required for any person engaged in recreational fishing from a boat and will provide DFWA with the capacity to conduct more frequent surveys of boat-based fishers' catch information for all recreational species. Given that most mackerel fishing occurs from boats, this should provide the capacity for more frequent updates on the levels of (boat-based) recreational mackerel catch.

4. PROGRESS AGAINST IMPLEMENTING RECOMMENDATIONS

1. ***DFWA to advise DEWHA of any material change to the fishery's legislated management plan and/or arrangements that could affect the criteria on which EPBC decisions are based, within three months of that change being made.***

Current Status: ***Ongoing.***

The Fishery continues to operate in accordance with the management regime in force under the *Fish Resources Management Act 1994*. No amendments to the management regime have been made that adversely affect the criteria on which decisions made pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* are based, nor do they affect the sustainability of the target species or negatively impact on by-product, by-catch, protected species or the ecosystem. The changes to the interim plan summarised in Section 2 have served only to improve the sustainability of the Fishery.

2. ***DFWA, in its annual State of the Fisheries Report, to report on the performance of the fishery against performance measures that relate to the sustainability of the fishery.***

Current Status: ***Complete.***

Extracts from the *State of the Fisheries Reports 2004/05 to 2007/08* are provided at Appendix 1.

3. ***The ESD report, including all performance measures, responses and information requirements, to be formally incorporated into the management regime and decision making process.***

Current Status: ***Ongoing.***

DFWA has recognised the need to develop formal mechanisms to incorporate objectives and performance measures into the management processes for all of its commercial fisheries. In consultation with relevant stakeholders, DFWA is progressing the development of formal policy guidelines for all Western Australian commercial fisheries that will include ecological, economic and social objectives and performance indicators.

In the interim, DFWA reports against performance indicators for the Fishery in the annual *State of the Fisheries Report*.

- 4. DFWA, within 2 years, incorporate into the management regime fishery specific objectives, performance indicators and performance measures for byproduct species or species groups and for bycatch. DFWA, within 1 year, to also incorporate into the management regime objectives to minimise interactions with protected/listed species and to minimise impacts on the marine environment.**

Current Status: **Complete/Under Review.**

There are two primary species groups for the Fishery, narrow-barred Spanish mackerel (*Scomberomorus commerson*) and other mackerel species. The gear is highly specific in targeting narrow-barred Spanish mackerel, which comprised 96% (326 tonnes) of the recorded catch in 2007. Given this, the primary performance measure set for the Fishery is the status of narrow-barred Spanish mackerel spawning stock. The spawning stock is basically the same as the exploited stock because the minimum size limit of 900 mm is similar to size at sexual maturity. In this context, catch rates are a general indicator of breeding stock levels. Catch outcomes and the achievement of the target catch range, is a secondary measure of stock status.

Broad-barred or grey mackerel (*Scomberomorus semifasciatus*) is the secondary target species and comprises the majority of the remaining catch. In 2007, a total catch of 11.3 tonnes of grey mackerel was reported, which was the lowest recorded catch since 2000 (17 tonnes in 2006). However the quota allocated for this species is “aspirational” and designed to encourage development of the grey mackerel element of the Fishery (within a sustainable fishery framework). However, the declines in grey mackerel catch are thought to have resulted from a combination of effort reduction, stabilisation and an increased targeting of Spanish mackerel resulting in less capacity to fish for, and store, grey mackerel. Nevertheless, the use of total catch levels will continue to be used as a performance measure for the grey mackerel element of the Fishery.

As detailed in section 3.1, the Fishery has been managed under an Individual Transferable Quota system since January 2006, which sets out a separate Total Allowable Commercial Catch (TACC) by area for mackerel other than grey mackerel (all fish of the genera *Scomberomorus*, *Grammatorcynus* and *Acanthocybium*) and grey mackerel. Given the low catch of spotted, shark and school mackerel over the past five years (less than one tonne in 2007), the use of total catch levels will continue to be used as a performance measure for those lesser caught mackerel species.

DFWA is of the view that the current management regime including setting of the TACC and the use of total catch levels as a performance measure to assess all retained mackerel stocks is appropriate in relation to the level of risk posed by the Fishery on those species. Therefore, the current management regime achieves the fishery specific objective of enabling the sustainable harvesting of mackerel species, both biologically and economically. However, DFWA will revisit the risk ratings identified in the 2004 report and determine whether they are still relevant or whether they require amendment.

Trolling is a highly specific fishing method therefore the retention of non-target species including smaller sharks, bonito, cobia, tuna, dolphinfish, trevally and demersal finfish is minor. The minor catch of non-target species by the Fishery over the past five years has not warranted the determination of specific performance indicators and performance measures for those species. Nonetheless, total catch levels will continue to be monitored. Fishers are no longer permitted to retain sharks and rays, which were commercially protected in 2007.

The minor catch of non-retained bycatch caught by the Fishery over the past five years has also not warranted the determination of performance indicators and performance measures for those species. Species that are occasionally caught and discarded include billfish, pike, barracuda, mackerel tuna, queenfish and trevally. A high proportion of the discarded bycatch is likely to survive capture and release.

DFWA is of the view that the current fishing practices and the continued monitoring of catch levels of non-mackerel-byproduct and anecdotal information regarding non-retained bycatch to assess the impact of the Fishery is appropriate in relation to the level of risk posed by the Fishery on those species, and therefore achieves the fishery specific objective of enabling the sustainable harvesting of mackerel species, both biologically and economically. The original assessment determined that the Fishery posed a negligible risk to retained byproduct and non-retained bycatch. However, DFWA will revisit the risk ratings identified in the 2004 report and determine whether they are still relevant or whether they require amendment.

The current management regime for the Fishery has a negligible impact on protected/listed species and the marine environment. The line fishing methods used in this Fishery are not known to catch or interact with any protected or listed species. The impacts on the general environment (trophic interactions, benthic biota, translocation and discarding/provisioning) cause by fishing practices used by the Fishery continue to be negligible/low. However, DFWA will revisit the risk ratings identified in the 2004 report and determine whether they are still relevant or whether they require amendment.

5. DFWA to ensure, where appropriate, that any relevant charter boat, conservation and recreational interests in the fishery are considered through consultative mechanisms.

Current Status: **Ongoing.**

Consultation regarding the management arrangements for the Fishery is between DFWA and industry to discuss Research, Compliance, Vessel Monitoring System and management issues. However, should an issue relevant to conservation, charter boat, other commercial fisheries or recreational interests arise, direct consultation with appropriate representative bodies such as Recfishwest, the Recreational Fishing Advisory Committee, WA Fishing Industry Council, Conservation Council and the Charter Boat Owners and Operators Association will take place.

6. DFWA to develop a compliance strategy for the WAMF. This strategy will provide for periodic review and explicitly address the effectiveness of the input regime, the proposed ITQ regime and those controls applying to the recreational sector.

Current Status: **Complete.**

A risk assessment and compliance planning workshop was conducted for the commercial sector in September 2006. Risks were identified and a compliance strategy was developed. The compliance strategy is considered to be commensurate with the level of risk given the management arrangements that are in place.

DFWA will continue to provide an appropriate standard of compliance service within budgetary and resource constraints based on this strategy, noting that DFWA has limited compliance resources dedicated to the mackerel fishery (when considering competing compliance requirements in other fisheries).

The compliance risks in the commercial mackerel fishery are relatively low and the Individual Transferable Quota system and the Vessel Monitoring System are integral to the compliance strategy for the Fishery. The requirement for mackerel to be unloaded only at specified ports in each area of the Fishery assists compliance staff in undertaking landing inspections more efficiently. There is a relatively low risk that the quota system would be undermined or the Total Allowable Commercial Catch exceeded provided mackerel is unloaded within a scheduled port area in Western Australian waters given the capacity to observe and inspect those landings and the penalty regime. DFWA recognises that there are compliance risks associated with offloading mackerel in Darwin and will continue to investigate ways to mitigate this risk.

The original assessment stated that the performance measure of the commercial compliance program would be a measure of the proportion of offences to the number of inspections, a review of which provides an indication of the degree of understanding and acceptance of rules governing the operation of the fishery by the commercial sector. Over the past few years, an average of one offence per year was detected, noting that the number of contacts by compliance staff were not substantial due to limited compliance resources.

A risk assessment workshop is conducted annually to determine where recreational compliance hours should be used. Recreational mackerel fishing compliance is included under general finfish compliance.

7. DFWA to review monitoring and research needs and priorities to meet the stock assessment and management information requirements for the WAMF. DFWA to also develop a monitoring and research strategy to address priority needs, including stock assessment research needs for Spanish and grey mackerels.

Current Status: **Complete.**

An assessment of narrow-barred Spanish mackerel (*Scomberomorus commerson*) stocks was completed in 2002. Results from the study were used to develop the interim plan in 2004. Since then, the monitoring and research strategy used for the Fishery has been based on the recorded catches of the primary target species narrow-barred Spanish mackerel. Data from the fishery is available via statutory daily logbook returns (introduced in 2006), statutory Catch and Disposal Records and the Vessel Monitoring System. Catch data are used in the annual *State of the Fisheries Report* and to monitor against the target commercial catch range and performance measure set for the Fishery.

The performance measure set for the Fishery is the status of Spanish mackerel spawning stock. The spawning stock is basically the same as the exploited stock, given that the minimum size limit of 900 mm is similar to size at sexual maturity. In this context, catch rates are a general indicator of breeding stock levels. Catch outcomes and the achievement of the target catch range, is a secondary measure of stock status. The Total Allowable Commercial Catch is currently set at 410 tonnes for mackerel other than grey mackerel and has been set at this level since 2006. The catch of mackerel other than grey mackerel landed by the Fishery in 2007 of 327 tonnes was within the acceptable catch range of 246 – 410 tonnes.

Spanish mackerel is not considered to be a high risk species as its biological characteristics such as moderate/high fecundity, high growth rate and age at sexual maturity make it a robust species that is relatively resilient to overfishing. This, in combination with the legal minimum size limit of 900 mm (the size when 80% of male fish and 50% of female fish reach sexual maturity) supports an adequate level of recruitment under typical environmental conditions.

There has been a significant reduction in the amount of effort since 2003, which has since stabilised. Increasing catches and catches per unit of effort of Spanish mackerel in 2007 suggests that the stock is robust and that current catch levels are sustainable.

In 2007, a total catch of 11.3 tonnes of grey mackerel was reported, which was the lowest recorded catch since 2000 (17 tonnes in 2006). However, the declines in grey mackerel catch are thought to have resulted from a combination of effort reduction, stabilisation and more efficient targeting of Spanish mackerel, combined with potentially less market demand for grey mackerel, being a lesser known species. DFWA is currently undertaking a Fisheries Research and Development Corporation funded project on grey mackerel genetics that will also provide some information regarding the stock structure and biological characteristics of grey mackerel.

Given the information above, following a review of the monitoring and research needs and priorities together with the resourcing and budget constraints faced by DFWA, Spanish and grey mackerel stocks are unlikely to undergo another fishery independent stock assessment in the foreseeable future. Notwithstanding this, DFWA believes that, given the catch rates over the past five years and the biological characteristics of the primary target species, the current monitoring and research strategy described above meets the current management requirements for the fishery.

8. *Within 18 months, DFWA to develop a process to improve estimates of recreational take, particularly in the west coast and factor these into stock assessments and management controls to ensure overall catch levels are sustainable.*

Current Status: ***Ongoing.***

No further surveys of the recreational take of mackerel in the Gascoyne, Pilbara and Kimberley areas have been undertaken since the last assessment. Boat-based recreational survey data are available for the west coast in 2005/06. The data estimates that boat-based recreational fishers took approximately 7 tonnes of Spanish mackerel off the west coast. DFWA recognises that the recreational catch of Spanish mackerel needs to be more regularly quantified, particularly off the north coast, where a higher abundance of Spanish mackerel attracts significant recreational fishing pressure.

The Minister for Fisheries announced changes to recreational fishing management in July 2009, which will come into place from mid-October 2009. While there are no further changes proposed to the current bag and size limits for the main four recreational mackerel species, a state-wide recreational boat fishing licence will be introduced. The annual licence will be required for any person engaged in recreational fishing from a boat and will provide DFWA with the capacity to conduct more frequent surveys of boat-based fishers' catch information for all recreational species.

Given that most mackerel fishing occurs from boats, this should provide the capacity for more frequent updates on the levels of (boat-based) recreational mackerel catch.

The estimated total charter catch of Spanish mackerel state-wide in 2007 was 9 tonnes, with just over half of the catch taken in the Pilbara/Kimberley. The estimate of the take of mackerel by charter operators is considered to be accurate given the charter sector are required to submit statutory fishing returns and must record the number of all species that are both kept and released. DFWA will continue to monitor the annual catch of mackerel by charter operators against the current recreational management controls (size, bag and possession limits) to ensure catch levels remain sustainable.

9. DFWA to review the effectiveness of measures to control recreational catch of Spanish mackerel, particularly in the west coast to ensure these measures are appropriate and adequately constrain recreational effort. Should the review indicate that existing measures are not appropriate, DFWA will initiate new measures within 12 months of that finding.

Current Status: **Ongoing.**

The measures to control the recreational catch of Spanish mackerel, grey (broad-barred) mackerel, shark mackerel and wahoo are provided in section 2.2. The minimum legal size limits in place for all four mackerel species reflect size at sexual maturity while the bag, boat and possession limits control, to a degree, the quantity of mackerel that can be taken. DFWA therefore considers that the recreational management controls that are currently in place, together with the biological characteristics of mackerel species generally, reduces the risk that the recreational fishery might otherwise pose to mackerel stocks.

Nevertheless, DFWA recognises that the recreational mackerel fishery requires ongoing assessment, as this is a growing sector that takes a significant proportion of the Spanish mackerel catch. In the past, boat ramp surveys have been the only tool that has been used to estimate the catch of Spanish mackerel by recreational fishers and the resultant effectiveness of measures to control the recreational catch of Spanish mackerel in particular areas off the WA coast.

The new state-wide recreational boat fishing licence will provide DFWA with the capacity to conduct more frequent surveys of boat-based recreational fishers' catch information and will provide the opportunity to review the effectiveness of measures to control the recreational catch of Spanish mackerel. Given that most mackerel fishing occurs from boats, this should provide the capacity for more frequent updates on the levels of (boat-based) recreational mackerel catch. More accurate data relating to the number of released mackerel (including condition on release) and numbers of mackerel lost to sharks may also be obtained through such surveys.

10. DFWA to develop and implement, within 18 months, a robust system to validate fishery dependent data on catch and effort for all target and byproduct species.

Current Status: **Complete.**

The daily logbook returns, together with the catch and disposal records (CDRs) are the statutory fishing records required to be submitted by the commercial sector.

DFWA has the capacity to inspect landings and compare logbook returns with CDRs as resources permit, noting that operators can record both mackerel and retained byproduct (caught under authority of their Fishing Boat Licence) on their logbook returns, while CDRs are only used to record those species of mackerel that are to be recorded against quota holdings.

DFWA is of the view that data derived from the fishery is comparatively dependable based on the rigour of the management arrangements and therefore believes that a fishery independent data validation method is not warranted. This, together with Departmental resourcing priorities, means that it is not likely that a fishery independent data validation method will be developed at this stage.

11. DFWA to implement a system to improve the identification and recording of elasmobranch species taken as byproduct in the WAMF.

Current Status: **No Longer Relevant.**

A system to improve the identification and recording of elasmobranch species taken as byproduct in the Fishery is not required. Since the last assessment, all sharks and rays, other than sharks and rays that are totally protected, have been declared as commercially protected species (i.e all sharks and rays are protected one way or another from commercial fishers other than those in specific target shark fisheries). Mackerel fishers are therefore no longer permitted to retain sharks and rays as byproduct.

12. DFWA will provide a mechanism by which fishers are able to record interactions with those non-retained species that are at risk from the fishery.

Current Status: **Under Review.**

The original assessment ranked the Fishery as having a negligible risk on the breeding stocks of non-retained species, due to the very low level of non-retained species interactions. The use of highly specific trolling gear, together with fisher's targeting habits, has resulted in the fishery posing negligible risk to those non-retained species' populations. Species that are occasionally caught and discarded include billfish, pike, barracuda, mackerel tuna, queenfish and trevally. Fishers must discard all sharks and rays, which have been commercially protected since 2007. A high proportion of the discarded species are likely to survive capture and release.

Based on the above, a mechanism enabling the recording of non-retained species interactions has not been provided to mackerel fishers at this stage given the negligible risk rating applied in the original assessment. However, DFWA will revisit the risk ratings

identified in the 2004 report and determine whether they are still relevant or whether they require amendment.

13. DFWA to provide a mechanism, which allows fishers to record interactions with protected/listed species. DFWA to implement an education program to ensure that industry has the capacity to make these reports at an appropriate level of accuracy.

Current Status: **Complete.**

In May 2006, the daily logbook returns became the approved form under regulation 64 of the *Fish Resources Management Regulations 1995*. Daily logbook returns include a specific section for the reporting of protected or listed species interactions and the condition of the species post interaction. Any interactions can be recorded in the logbook on a daily basis and on a 10x10nm spatial scale, as opposed to the previous Catch and Effort Statistical forms used for reporting, which were submitted on a monthly basis and a 60x60 nautical mile scale.

All permit holders were provided with the National Heritage Trust published "Protected Marine Species Identification Guide" for reference when reporting any interactions with listed/protected species.

5. CONCLUSION

This report should provide sufficient information for DEWHA to re-assess the Fishery against the guidelines for *Guidelines for the Ecologically Sustainable Management of Fisheries*, under Part 13 and 13A of the *EPBC Act 1999*. However, should you require any further information regarding the details of the contents of this report please contact **Natalie Moore** on natalie.moore@fish.wa.gov.au

Comment [DEH1]: Given that this is going to be made a public document on the DEWHA website, confirmation is needed for inclusion of personal details