



Australian Government

Department of the Environment, Water, Heritage and the Arts

Assessment of the
Western Australia Mackerel Fishery

November 2009

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Disclaimer

This document is an assessment carried out by the Department of the Environment, Water, Heritage and the Arts of a commercial fishery against the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*. It forms part of the advice provided to the Minister for the Environment, Heritage and the Arts on the fishery in relation to decisions under Parts 13 and 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for the Environment, Heritage and the Arts or the Australian Government.

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Table 1: Summary of the Western Australia Mackerel Fishery

Publicly available information relevant to the fishery	<ul style="list-style-type: none"> • <i>WA Fish Resources Management Act 1994</i> (FRM Act) • <i>WA Fish Resources Management Regulations 1995</i> (FRM Regulations) • <i>WA Mackerel Fishery (Interim) Managed Fishery Management Plan 2004</i> • The Department of Fisheries Western Australia (DFWA) State of the Fisheries Report 2005/06, 2006/07, 2007/2008, 2008/2009 • Department of the Environment and Heritage (DEH) ‘Assessment of the Western Australian Mackerel Fishery’, October 2004 • Department of Fisheries Western Australia (DFWA) ‘Environmental Assessment of the Western Australian Mackerel Fishery’ June 2004
Area	<p>The WA Mackerel Managed Fishery operates in state waters from Cape Leeuwin to the Northern Territory Border. The fishery is divided into three areas; Kimberley (Area 1), Pilbara (Area 2) and Gascoyne and West Coast (Area 3). These areas are subject to separate Total Allowable Commercial Catch (TACC) limits and prior to May 2008 also had separate temporal closures.</p> <p>Effort is distributed between the three areas in proportion to allocated TACC limits.</p>
Fishery status	<p>DFWA’s State of the Fisheries Report 2007/2008 indicates that a stock assessment has not been performed since the 2002 initial assessment for Spanish Mackerel.</p> <p>The performance measure set for the fishery is the status of the Spanish mackerel spawning stock. As the minimum legal size of 900mm total length is similar to the size at maturity for this species, the spawning stock is essentially the same as the exploited stock. In this context, catch rates across the major areas of the fishery are a general indicator of breeding stock levels, as reflected by catches being within target ranges. The total catch for 2008 was within the target catch range and overall catch rates have been increasing since 2000.</p> <p>Grey mackerel are a secondary target species, comprising the majority of the remaining catch. 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). The catch of grey mackerel has declined in recent years due to preferential targeting of Spanish mackerel. Catch levels will continue to be used as a performance measure for grey mackerel.</p>
Target Species	<p>Spanish Mackerel (<i>Scomberomorus commerson</i>) and Grey Mackerel (<i>S. semifasciatus</i>) under quota management arrangements. Other species from the genera <i>Scomberomorus</i>, <i>Grammatorcynus</i> and <i>Acanthocybium</i> also contribute to commercial catches.</p> <p>Information on the biology of these/this species can be found in the 2004 assessment of the fishery located on the DEWHA website .</p>
Byproduct Species	<p>Mackerel Byproduct: Spotted Mackerel (<i>S. munroi</i>), School Mackerel (<i>S. queenslandicus</i>), Shark Mackerel (<i>Grammatorcynus bicarinatus</i>)</p>

	<p>and Wahoo (<i>Acanthocybium solandri</i>)</p> <p>Other byproduct:</p> <p>Since the establishment of the <i>Mackerel Fishery (Interim) Management Plan 2004</i> (the Management Plan), further legislative arrangements have been implemented in the West Coast, Gascoyne and Pilbara that prohibit the retention of ‘non-mackerel’ scalefish species by mackerel permit holders.</p> <p>The Management Plan allows the holder of a mackerel permit to fish for mackerel of the genera <i>Scomberomorus</i>, <i>Grammatorcynus</i> and <i>Acanthocybium</i> by trolling or hand lining. However, the rules regulating the retention of ‘non-mackerel’ scalefish species by mackerel permit holders are set out in the legislation that regulate the following commercial fisheries-</p> <ul style="list-style-type: none"> • West Coast Demersal Scalefish (Interim) Managed Fishery; • Gascoyne Commercial Line Fishing Prohibition; • Shark Bay Pink Snapper Managed Fishery; • Pilbara Line Fishery; and • Northern Demersal Scalefish Managed Fishery. <p>Fishers are permitted to retain limited numbers of the following fish:</p> <table> <tr> <td>Tuna - yellowfin and bigeye</td><td>2</td></tr> <tr> <td>Mackerel - jack, Peruvian jack, yellowtail jack and blue</td><td>10</td></tr> <tr> <td>Tuna – albacore, longtail and skipjack</td><td>10</td></tr> <tr> <td>Redbait</td><td>10</td></tr> <tr> <td>Fish of the Family Bramidae when taken in WA waters outside the 200 metre isobath</td><td>10</td></tr> </table>	Tuna - yellowfin and bigeye	2	Mackerel - jack, Peruvian jack, yellowtail jack and blue	10	Tuna – albacore, longtail and skipjack	10	Redbait	10	Fish of the Family Bramidae when taken in WA waters outside the 200 metre isobath	10
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Gear	<p>Troll lines using both natural (generally garfish) and artificial baits are used to target Spanish Mackerel. Grey Mackerel are targeted with jigs.</p> <p>Recreational fishing for Spanish Mackerel involves similar gear, but also includes shore-based live baiting (utilising balloons) and spear fishing.</p>										
Season	<p>Seasonal closures were in place for all three management areas from 2004 to 2007. They have since been abolished in the management plan refinement process, as their use as an input control was deemed unnecessary following the introduction of quota systems.</p>										
Commercial harvest (2008)	<p>Spanish Mackerel: 323.4 tonnes (t). Catches have declined since the inception of the IMP in 2004 until the 2007 season, when a TACC limit was first implemented in the fishery.</p>										

Value of commercial harvest (2007/08)	Approximately \$2 million (2007/08).
Take by other sectors	<p>In the 2000/01 National Recreational Fishing Survey, recreational fishers comprised 42% of the total annual Spanish Mackerel catch and 57% of the total catch of other mackerel. Other surveys indicate that recreational fishing accounts for 40% of total catch in the Gascoyne/West Coast region, and in the Pilbara (including the Broome region) comprise 20% of the total catch for this region.</p> <p>DFWA also monitors recreational catch from charter vessels, though annual take from this sector is relatively low (9 t in 2007).</p>
Commercial licences issued	There are 78 permit holders in the fishery. These are divided as follows: Area 1: 35; Area 2: 22; Area 3: 21. 38 permits were active in 2008/09 on 4, 7 and 6 boats operating within Areas 1, 2 and 3 respectively.
Management arrangements	<p>The fishery is managed under the <i>WA Mackerel Fishery (Interim) Managed Fishery Management Plan 2004</i> (Interim Management Plan), the <i>WA Fish Resources Management Act 1994</i> and the <i>WA Fish Resources Management Regulations 1995</i>. The Interim Management Plan has undergone a significant refinement process since the first assessment, including the introduction of a quota system, catch reporting requirements, reviews of temporal closures and landing requirements for target species.</p> <p><u>Output controls</u></p> <ul style="list-style-type: none"> • Separate TACC limit for each management area, with TACC limits for Spanish Mackerel and other mackerel, and for Grey Mackerel. • ITQs for permit holders, including minimum operating holdings • Minimum legal size of 900mm for Spanish and other mackerel and 750mm for Grey Mackerel. <p><u>Input controls</u></p> <ul style="list-style-type: none"> • Limited entry. • Gear restrictions. <p>The Interim Management Plan expires on 31 December 2011. It is anticipated that the fishery will be moved to 'Managed' status by 31 December 2010. A Draft Mackerel Fishery Management Plan will be released for public comment once available.</p>
Export	Taiwan (export value unknown)
Bycatch	Fishing methods for mackerel involves specialised troll lines to target aggregations of fish. Bycatch levels are considered to be low. Bycatch species include Queenfish, Barracuda, Mackerel Tuna, pike, trevally, small sharks and billfish. Most of these species are expected to have

	high post-capture survival.
Interaction with Protected Species¹	No interactions with protected species have been reported in this fishery. Interactions are unlikely due to the fishing methods used.
Ecosystem Impacts	<p>Mackerel are not considered keystone, but are important reef-associated pelagic predators. The proportion of spawning biomass taken by the fishery is likely to be low enough to have minimal food chain impacts.</p> <p>The impact of discarded waste is likely to be low, due to the selective fishing methods used in the fishery with high survival rates of discarded bycatch and low target species fish waste.</p> <p>Baits used in the fishery are generally sourced from other managed fisheries.</p>
Impacts on CITES-listed specimens	No specimens listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) are permitted to be harvested in the fishery. Therefore no assessment of the WAMF's impact on specimens listed under CITES has been conducted.

¹ 'Protected species' means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and threatened, marine and migratory species.

Table 2: Progress in implementation of recommendations made in initial assessment of the WA Mackerel Fishery

Recommendation	Progress	Recommended Action
<p>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</p>	<p>The Interim Management Plan has undergone a significant refinement process, with five amendments applied since its inception in 2004. These amendments have included the introduction of ITQs, TACC limits for management areas, enhanced reporting requirements (including VMS) and removal of closed seasons (see DFWA's 2009 submission for reassessment).</p> <p>DEWHA was not informed of these changes to management arrangements. For the most part, these changes are likely to improve the sustainability of the fishery, however DEWHA would prefer to be informed of the removal of controls such as closed seasons. DEWHA will continue to work with DFWA regarding this recommendation.</p>	<p>This recommendation is ongoing, and remains in force in a modified form for a further five years (see Recommendation 2, Table 4).</p>
<p>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</p>	<p>DFWA has reported against performance measures in the <i>Annual State of the Fisheries Report</i></p>	<p>This recommendation is ongoing, remains in force in a modified form for a further five years (see Recommendation 3, Table 4)</p>
<p>3. The ESD report, including all</p>	<p>DFWA has not yet formally</p>	<p>DEWHA considers this recommendation has been partially met.</p>

performance measures, responses and information requirements, to be formally incorporated into the management regime and decision making process	incorporated performance measures, responses and information requirements identified in the ESD report into the management regime. DFWA is developing state-wide policy guidelines across all fisheries which include these elements.	DFWA has indicated that they still intend to meet the recommendation, therefore it will remain in force for a further five years (see Recommendation 4 , Table 4).
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	<p>DFWA has not incorporated specific objectives and performance measures for byproduct species into the management regime, however it does contain a fishery specific objective to enable the sustainable harvesting of mackerel species, which encompasses byproduct and bycatch species management.</p> <p>The methods used in the fishery to target mackerel are highly specific. Before 2006, Spanish Mackerel were reported as ‘other mackerel’ as an artefact of the reporting arrangements. Since 2006, due to changes in reporting arrangements, catch of mackerel other than Spanish and Grey Mackerel have been very low. This level of mackerel byproduct probably does not warrant specific performance measures for these species, however robust monitoring is</p>	DEWHA considers this recommendation has been partially met, and reiterates that the formal inclusion of specific objectives to minimise interactions with protected/listed species into the management regime are desirable, therefore this recommendation remains in place in a modified form (see Recommendation 5 , Table 4).

	<p>desirable to detect changes in byproduct quantity and composition.</p> <p>DFWA has indicated that non-mackerel byproduct is negligible, due to restrictions on bycatch retention outlined in Table 1. Bycatch is also considered minor, and most bycatch species are likely to survive post-capture.</p>	
<p>5. DFWA to ensure, where appropriate, that any relevant charter boat, conservation and recreational interests in the fishery are considered through consultative mechanisms</p>	<p>No issues for consultation with these groups have arisen since the previous assessment, however DFWA has the capacity and appropriate consultative mechanisms to ensure adequate consultation is performed if the need arises.</p>	<p>This recommendation is ongoing and remains in force for a further five years (see Recommendation 9, Table 4)</p>
<p>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</p>	<p>A compliance strategy has been developed relative to the degree of risk associated with the fishery. DFWA assessed the compliance risk to be low due to the ITQ system, VMS, verification of logbook data using CDRs and nominated landing ports for each management area.</p> <p>Compliance of recreational fishing for mackerel is covered under general finfish compliance, with annual workshops held to allocate</p>	<p>DEWHA considers this recommendation to be complete.</p>

	compliance hours.	
<p>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</p>	<p>DFWA completed a stock assessment for Spanish Mackerel in 2002, upon which initial management arrangements were based. Since then, catch data in conjunction with the minimum legal landing length (size at sexual maturity) have been used to monitor the relative stock status.</p> <p>No stock assessments have been performed for Grey Mackerel. As a secondary target species, precautionary TACC limits (60 t per management area) have been set for this species. Actual catch (less than 25 t across the fishery) has remained well below each area limit due to market forces. DFWA is engaged in research on Grey Mackerel genetics which may provide information on stock characteristics.</p> <p>DFWA considers that current stock monitoring and research is adequate for meeting management requirements. DEWHA acknowledges that there are limited resources for investment into research for this fishery, however given that a stock</p>	<p>DEWHA considers this recommendation has been met, however a review may be necessary if management arrangements change or recreational catch is shown to have significantly increased. DEWHA also recommends periodic stock assessment be undertaken for Spanish Mackerel (Recommendation 7, Table 4).</p>

	assessment for Spanish Mackerel has not been performed since 2002, DEWHA considers that an assessment during the current exemption period is appropriate.	
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	<p>DFWA conducted a survey of boat-based recreational fishing in the West Coast region in 2005/06. Results indicated that recreational fishers caught approximately 7 t of Spanish Mackerel in this region. Data for other regions have not been obtained since the national survey in 2000/01, which estimated the recreational catch (including charter components) of Spanish Mackerel to be 278 for all WA. This suggests that northern regions are much more significant in terms of recreational effort and total catch between commercial and recreational sectors.</p> <p>DFWA anticipates that the introduction of a recreational boat fishing licence will allow greater capacity for obtaining catch data for all recreational species caught from boats, including mackerel.</p> <p>The charter boat component of recreational fishing is monitored using statutory fishing returns.</p>	DEWHA considers this recommendation has been partially met. Regular surveys of recreational catch in all regions, but especially the northern half of the state, are important to ensure that combined recreational and commercial catches of mackerel species are sustainable, therefore this recommendation remains in modified form for a further five years (see Recommendation 8 , Table 4)

<p>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</p>	<p>Recreational fishers are subject to size, bag and possession limits. DEWHA is concerned that while bag limits constrain the number of fish retained, actual mortality from recreational fishing may be significantly higher when catch and release activities are accounted for, due to high post-capture mortality. DEWHA stresses the importance of catch and release estimates for mackerel species.</p>	<p>DEWHA considers that regular recreational fishing surveys including the recording of catch and release data would allow ongoing monitoring of the recreational component and allow management capacity to act where catch and/or effort is a matter of concern. Recommendation 8 (Table 4) covers surveying both retained and released catch.</p>
<p>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</p>	<p>Fishers are required to submit daily logbook returns and catch disposal records (CDRs). DFWA does not independently validate catch returns, however they may inspect landings and compare logbooks with CDRs. DEWHA considers these measures are sufficiently robust, in light of the low compliance risk and increasingly developed management arrangements.</p> <p>CDRs are only used for quota species ie mackerel. Non-Mackerel byproduct is only reported in logbooks. Considering the small amount of non-mackerel byproduct permitted to be taken in the fishery, DEWHA considers the</p>	<p>DEWHA considers this recommendation has been met.</p>

	current reporting mechanisms are adequate.	
11. DFWA to implement a system to improve the identification and recording of elasmobranch species taken as byproduct in the WAMF	The WA FRM regulations were amended in 2006 for commercial protection of elasmobranch species, except for fisheries where they are specifically targeted. Sharks and rays caught in the mackerel fishery are required to be discarded.	Due to these amendments in the FRM regulations, this recommendation is no longer required.
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	<p>As noted in the previous assessment, the risk to bycatch species in the mackerel fishery were considered to be negligible. This risk outcome is due to the highly selective methods used in the fishery. For this reason, reporting mechanisms recommended have not been developed. DEWHA recommends DFWA review the original assessment to ensure changes in bycatch are accounted for.</p> <p>DEWHA is concerned that due to a lack of reporting mechanisms for bycatch, the actual extent of bycatch caught is not known. To credibly reassess the risk to bycatch, DFWA should endeavour to quantify both species and quantities caught in the fishery.</p>	A review of the ecological risk assessment for the mackerel fishery is overdue, therefore DEWHA recommends DFWA conduct a risk assessment workshop to review the original assessment (See Recommendation 6 , Table 4).
13. DFWA to provide a	DFWA has indicated that the daily	DEWHA considers this recommendation has been met.

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	logbook returns submitted by fishers include a section for reporting protected/listed species interactions. All permit holders have been issued with the 'Protected Marine Species Identification Guide' to aid reporting.	
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Table 3: The Department of the Environment, Water, Heritage and the Arts (DEWHA) assessment of the WA Mackerel Fishery against the requirements of the EPBC Act related to decisions made under Parts 13 and 13A

Please Note – the table below is not a complete or exact representation of the EPBC Act. It is intended as a summary of relevant sections and components of the EPBC Act to provide advice on the fishery in relation to decisions under Parts 13 and 13A. A complete version of the EPBC Act can be found on the DEWHA website.

Part 13

Division 1 Listed threatened species Section 208A Minister may accredit plans or regimes	DEWHA assessment of the WA Mackerel Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the survival or recovery in nature of the species.</p>	<p>The WA Mackerel Fishery will be managed under the <i>Mackerel Interim Management Plan</i> 2004, made under the <i>Western Australian Fish Resources Management Act 1994</i>.</p> <p>The Management regime for the WA Mackerel Fishery was accredited in August 2004. The management arrangements for the WA Mackerel Fishery have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that within the WA Mackerel Fishery there is minimal possibility of interactions with listed threatened species. Therefore, DEWHA considers the current operation of the WA Mackerel Fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species. As such, the WA Mackerel Fishery will be reaccredited under Part 13 of the EPBC Act.</p>

Division 2 Migratory species Section 222A Minister may accredit plans or regimes	DEWHA assessment of the WA Mackerel Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ol style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed migratory species or a population of that species.</p>	<p>The WA Mackerel Fishery will be managed under the <i>Mackerel Interim Management Plan</i> 2004, made under the Western Australian <i>Fish Resources Management Act 1994</i>.</p> <p>The Management regime for the WA Mackerel Fishery was accredited in August 2004. The management arrangements for the WA Mackerel Fishery have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that within the WA Mackerel Fishery there is minimal possibility of interactions with listed migratory species. Therefore, DEWHA considers the current operation of the WA Mackerel Fishery is not likely to adversely affect the survival or recovery in nature of any listed migratory species. As such, the WA Mackerel Fishery will be reaccredited under Part 13 of the EPBC Act.</p>
Division 3 Whales and other cetaceans Section 245 Minister may accredit plans or regimes	DEWHA assessment of the WA Mackerel Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p>	<p>The WA Mackerel Fishery will be managed under the <i>Mackerel Interim Management Plan</i> 2004, made under the Western Australian</p>

<ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <ul style="list-style-type: none"> (f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing; and (g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a species of cetacean or a population of that species. 	<p><i>Fish Resources Management Act 1994.</i></p> <p>The Management regime for the WA Mackerel Fishery was accredited in August 2004. The management arrangements for the WA Mackerel Fishery have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that within the WA Mackerel Fishery there is minimal possibility of interactions with whales and other cetaceans. Therefore, DEWHA considers the current operation of the WA Mackerel Fishery is not likely to adversely affect the survival or recovery in nature of any whales and other cetaceans. As such, the WA Mackerel Fishery will be reaccredited under Part 13 of the EPBC Act.</p>
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Division 4 Listed marine species	
Section 265 Minister may accredit plans or regimes	DEWHA assessment of the WA Mackerel Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <ul style="list-style-type: none"> (c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is: <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <ul style="list-style-type: none"> (f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing; 	<p>The WA Mackerel Fishery will be managed under the <i>Mackerel Interim Management Plan</i> 2004, made under the Western Australian <i>Fish Resources Management Act 1994</i>.</p> <p>The Management regime for the WA Mackerel Fishery was accredited in August 2004. The management arrangements for the WA Mackerel Fishery have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p>

<p>and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed marine species or a population of that species.</p>	<p>Currently, evidence suggests that within the WA Mackerel Fishery there is minimal possibility of interactions with listed marine species. Therefore, DEWHA considers the current operation of the WA Mackerel Fishery is not likely to adversely affect the survival or recovery in nature of any listed marine species. As such, the WA Mackerel Fishery will be recredited under Part 13 of the EPBC Act.</p>
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Part 13A

Section 303DC Minister may amend list	DEWHA assessment of the WA Mackerel Fishery
<p>(1) Minister may, by instrument in published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <ul style="list-style-type: none"> (a) including items in the list; (b) deleting items from the list; or (c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or (d) varying of revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or (e) correcting an inaccuracy or updating the name of a species. 	
<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <ul style="list-style-type: none"> (a) must consult such other Minister or Ministers as the Minister considers appropriate; and (b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and (c) may consult such other persons and organisations as the Minister considers appropriate. 	<p>DEWHA considers that the consultation requirements have been met. The public comment period on the DFWA submission sought comment on the submission for the WA Mackerel Fishery and provided sufficient opportunity for consultation with other persons and organisations.</p> <p>A letter to the Hon Norman Moore advises him of the intention to declare the fishery exempt from the export provisions of the EPBC Act.</p>

(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.	The instrument for the WA Mackerel Fishery made under sections 303DC will be gazetted and made available on the DEWHA website.
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Section 303FR Public consultation	DEWHA assessment of the WA Mackerel Fishery
(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice: <ul style="list-style-type: none"> (a) setting out the proposal to make the declaration; and (b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and (c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal. 	Under the EPBC Act, a decision to amend the LENS does not require a public consultation period. However, a public notice, which set out the proposal to grant export approval to the WA Mackerel Fishery and included the submission for the WA Mackerel Fishery, was released for public comment which closed on 16 October 2009 with zero submissions received.
(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.	A public notice, which set out the proposal to grant export approval to the Mackerel Fishery and included the submission for the WA Mackerel Fishery was released for public comment on 17 September 2009 and closed on 16 October 2009, a total of 22 business days.
(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.	No public comments about the proposal were received.

Part 16

Section 391 Minister must consider precautionary principle in making decisions	DEWHA assessment of the WA Mackerel Fishery
(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and/or section 303FN, to the extent he or she can do so consistently with the other provisions of this Act.	The precautionary principle has been considered when making a decision to include specimens on the LENS.
(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent	

degradation of the environment where there are threats of serious or irreversible environmental damage.	
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Objects of Part 13A

- (a) to ensure that Australia complies with its obligations under CITES and the Biodiversity Convention;
- (b) to protect wildlife that may be adversely affected by trade;
- (c) to promote the conservation of biodiversity in Australia and other countries;
- (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way;
- (e) to promote the humane treatment of wildlife;
- (f) to ensure ethical conduct during any research associated with the utilisation of wildlife; and
- (h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.

Final recommendations to the Department of Fisheries, Western Australia (DFWA) for the Mackerel Fishery

The material submitted by DFWA indicates that the Mackerel Fishery operates in accordance with the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries*, 2nd edition. DEWHA considers that the fishery is well managed and unlikely to have an unacceptable or unsustainable impact on the environment in the short to mid term. Overall, DEWHA recognises that minimum size limits, total allowable commercial catch limits and gear restrictions are conservative and suggest that the fishery is being managed in an ecologically sustainable way.

In making its assessment, DEWHA considers that the range of management measures are sufficient to ensure that the fishery is conducted in a manner that does not lead to over-fishing and that stocks are not currently overfished. Taking into account the quota arrangements, catch monitoring, relatively specific fishing methods, and high survival of discarded bycatch, DEWHA considers that fishing operations are managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

DEWHA is satisfied that the fishery will not be detrimental to the survival or conservation status of the taxon to which it relates in the short term. Similarly, it is not likely to threaten any relevant ecosystem in the short term. To contain and minimise the risks in the longer term the recommendations listed below have been made. DEWHA believes that product taken in the fishery should be exempt from the export controls of Part 13A of the EPBC Act, with that exemption to be reviewed in 5 years.

DEWHA considers that the operation of the fishery does not, or is not likely to, adversely affect the survival in nature of a listed threatened species or population of that species, or the conservation status of a listed migratory species, cetacean or listed marine species or a population of any of those species. DEWHA also considers that under the management plan operators are required to take all reasonable steps to avoid the killing or injuring of protected species, and the level of interaction under current fishing operations is low.

For these reasons, the management plan was accredited under Part 13 of the EPBC Act in December 2004. The changes to the management plan since the initial assessment of the fishery have improved on those initially presented, therefore DEWHA considers that the existing Part 13 accreditation remains valid.

Recommendations are provided below with a brief explanation of the related issue/intent. Unless a specific time frame is provided in the recommendation each recommendation must be addressed within the life of the declaration (5 years).

Table 4: WA Mackerel Fishery Assessment– Summary of Issues and Recommendations November, 2009

	Issue	Recommendation
1	<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. In order to ensure that these decisions remain valid and export approval continues uninterrupted, the Department of the Environment, Water, Heritage and the Arts (DEWHA) needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem.</p> <p>DEWHA notes that the interim management plan is due to expire during the period of this exemption, with a new management plan possibly coming into force in 2011/12. DEWHA expects to be consulted to ensure the new management plan is equal to or better than the interim plan in terms of meeting the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> (the Guidelines).</p>	<p>Recommendation 1: Operation of the Mackerel Fishery will be carried out in accordance with the management regime in force under the Western Australian <i>Fish Resources Management Act 1994</i>.</p> <p>Recommendation 2: DFWA to advise DEWHA of any intended amendments to the Mackerel Fishery management arrangements that may affect the assessment of the fishery against the criteria on which EPBC decisions are based.</p>
2	<p><u>Annual reporting</u></p> <p>It is important that reports be produced and presented to DEWHA annually in order for the performance of the fishery and progress in implementing the recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration.</p> <p>Annual reports should follow Appendix B to the Guidelines and include a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing DEWHA recommendations. Electronic copies of the Guidelines are available from the DEWHA website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html</p>	<p>Recommendation 3: DFWA to produce and present reports to DEWHA annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p>

	<p>The Annual State of the Fisheries Report, which reports on the performance of the fishery against performance measures that relate to the sustainability of the fishery, is a recognised format for annual reporting.</p>	
3	<p><u>Strategic management framework</u></p> <p>The Mackerel Fishery Interim Management Plan was introduced in 2004. Since then, the interim plan has undergone significant refinement, including the introduction of a quota system, fish landing requirements and access allocation, with a view to bringing in a new management plan in 2011/12. As part of the refinement process, DEWHA recommends incorporating performance measures, responses, information requirements and environmental objectives into the management regime.</p> <p>In the initial assessment of the fishery, (then) DEH recommended DFWA incorporate specific objectives into the management regime to minimise interactions with protected/listed species and to minimise impacts on the marine environment, noting that these are not a part of the <i>Fisheries Resources Management Act 1994</i> or the Mackerel Fishery Interim Management Plan. DFWA's risk assessment states that the risk posed by the fishery to protected/listed species are negligible, and no interactions have been reported, however specific objectives to minimise interactions ensure environmental objectives are a priority in the fishery. Such objectives allow timely management action if interactions with protected/listed species arise in the fishery. DFWA has indicated their intention to develop policy documents for all fisheries, including the Mackerel Fishery, which outlines fishery objectives. As DFWA has indicated it is not appropriate to include objectives in the interim plan, DEWHA recommends that the policy document for the Mackerel Fishery include specific environmental objectives covering protected species and the marine environment.</p> <p>The original ESD assessment included an assessment of risk posed to target species, byproduct (mackerel and non-mackerel), bycatch, protected/listed species and the marine environment. The ESD report stated that risks assigned to these components are to be reviewed every five years. DFWA has indicated that the review of the original risk assessment outcomes is overdue. DEWHA recommends that a review workshop be conducted with participation from stakeholders, including charter, recreational and conservation groups.</p>	<p>Recommendation 4: DFWA to formally incorporate performance measures, responses and information requirements from the ESD report into the management regime and decision making process.</p> <p>Recommendation 5: In developing policy guidelines for the operational context of the Mackerel Fishery, DFWA to include specific objectives to minimise interactions with protected/listed species and to minimise impacts on the marine environment.</p> <p>Recommendation 6: DFWA to conduct a comprehensive review of risk levels for target species, byproduct, bycatch (including protected species) and impacts on the environment for the Mackerel Fishery, including consideration of the impact of current data validation mechanisms . DFWA to continue monitoring byproduct catch trends, and to investigate recording bycatch on logbooks by 30 June 2011, to ensure identified risks are addressed and minimised.</p>

	<p>Currently, discarded bycatch is not recorded on logbook returns. Although bycatch levels are likely to be low, DEWHA recommends quantifying bycatch through recording in logbooks to detect trends and ensure risks to bycatch species are managed as they arise. Given the difficulty of implementing such a measure, DFWA should investigate the feasibility of bycatch recording with industry and research personnel.</p>	
4	<p><u>Stock assessment and monitoring</u></p> <p>A stock assessment for Spanish Mackerel has not been performed since 2002. Since then, stock monitoring has been based on catch and effort data, using catch rates as an indicator of breeding stock levels. Such monitoring, while fraught with uncertainty, is likely appropriate for the scale of this fishery, however periodic stock assessments should be performed to confirm stock status and ensure catch levels from recreational and commercial fishing remain at sustainable levels. DEWHA considers that a stock assessment at least every 10 years is appropriate for this fishery, therefore an assessment should be performed by December 2012.</p> <p>Recreational catch of mackerel species comprises a significant proportion of the total catch. Measures to quantify the take of recreational fishers have occurred in a patchy and irregular fashion. The National Recreational Fishing Survey (2000/01) indicated that 278 t of Spanish Mackerel were taken by this sector. The survey of the west coast region by Sumner and Williamson in 2005/06 quantified the recreational catch for this region as approximately 7 t. As the majority of recreational catch appears to be focussed on the Gascoyne, Pilbara and Kimberley regions, an improved understanding of the distribution and trends in recreational fishing is vital to ensure the combined commercial and recreational catch is both sustainable and equitably distributed.</p> <p>DFWA anticipates that the introduction of a recreational boat fishing licence will allow greater capacity for obtaining catch data for all recreational species caught from boats, including mackerel. DEWHA recommends DFWA use the proposed recreational boat fishing licence framework to regularly quantify recreational catch of mackerel.</p> <p>Mackerel species are known to exhibit high post-capture mortality. Given the popularity of mackerel as a sport fish, their tendency to aggregate and relatively small bag limits, catch and release fishing is likely to occur in the recreational sector. This may lead to much higher</p>	<p>Recommendation 7: DFWA to seek to develop and implement, by December 2012, a stock assessment in the form of an assessment of fishing mortality to ensure the ongoing sustainability of Spanish Mackerel stocks.</p> <p>Recommendation 8: DFWA to develop and implement a program, through the proposed recreational boat fishing licence framework, to regularly quantify recreational catch, including release rate estimates, of mackerel species to ensure management controls adequately account for this component of the fishery.</p>

	mortality from the recreational sector than landed catch implies. DEWHA recommends that estimates of release rates in the recreational sector be obtained in any program to quantify recreational catches of mackerel species.	
5	<u>Consultation</u> DEWHA considers that current consultative mechanisms are adequate and DFWA has sufficient capacity to effectively consult with relevant charter boat, conservation and recreational interests where appropriate. DEWHA urges DFWA to continue to ensure that adequate consultative mechanisms remain in place for the WAMF.	Recommendation 9: DFWA to ensure, where appropriate, that any relevant charter boat, conservation and recreational interests in the fishery are considered through consultative mechanisms.

