



**Australian Government**

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**Department of the Environment, Water, Heritage and the Arts**

Assessment of the  
**Queensland Marine Aquarium Fish Fishery**

**November 2008**

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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 – 2<sup>nd</sup> 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 Queensland Marine Aquarium Fish Fishery (MAFF)**

<p><b>Publicly available information relevant to the fishery</b></p>	<ul style="list-style-type: none"> <li>• Queensland <i>Fisheries Act 1994</i></li> <li>• Queensland <i>Fisheries Regulation 2008</i></li> <li>• <i>Great Barrier Reef Marine Park Act 1975</i></li> <li>• Queensland <i>Marine Parks Act 1982</i></li> <li>• Annual Status Report March 2007 – Queensland Marine Aquarium Fish Fishery</li> <li>• Annual Status Report 2007 – Queensland Marine Aquarium Fish Fishery</li> <li>• Annual Status Report 2008 – Queensland Marine Aquarium Fish Fishery</li> </ul>
<p><b>Area</b></p>	<p>The MAFF operates along the Queensland east coast from the tip of Cape York south to the New South Wales border.</p> <p>The fishery area includes five Special Management Areas (SMAs) that can only be accessed by certain holders of an A1 symbol. Allocation of access to these areas was undertaken in 2003 based on a licensee’s historic participation in the region. The remainder of the fishery area is open to both A1 and A2 authority holders. The majority of commercial aquarium fish collecting occurs in coastal and reef waters in northern Queensland.</p>
<p><b>Fishery status</b></p>	<p>The fishery status is considered to be uncertain given that there have been no stock assessments on target species to date.</p>
<p><b>Target species</b></p>	<p>There are more than 1500 species of marine fish that could be harvested from Queensland waters for private or public aquarium displays. Fish families commonly harvested in the MAFF include:</p> <ul style="list-style-type: none"> <li>• Damsel fish (Family <i>Pomacentridae</i>)</li> <li>• Butterflyfish and Bannerfish (Family <i>Chaetodontidae</i>)</li> <li>• Angelfish (Family <i>Pomacanthidae</i>)</li> <li>• Wrasses (Family <i>Labridae</i>)</li> <li>• Surgeonfish (Family <i>Acanthuridae</i>)</li> <li>• Gobies (Family <i>Gobiidae</i>)</li> </ul>
<p><b>Byproduct species</b></p>	<p>While the MAFF does not distinguish between target and byproduct species, the fishery does collect individuals representing over 500 different species of reef fish.</p>
<p><b>Gear</b></p>	<p>Aquarium fish are commercially harvested by hand with the use of hand-held apparatus, fishing lines (with a single barbless hook), cast nets, scoop nets, seine/barrier nets and/or herding devices (for example, a small rod). Divers in the commercial fishery are aided by self-contained underwater breathing apparatus (SCUBA) or surface-supplied air from hookah apparatus, allowing for extended time underwater and increased mobility for fish harvesting.</p> <p>Recreational harvesters cannot legally use SCUBA or hookah apparatus, but may use a mask and snorkel.</p>

<b>Season</b>	The fishing season for the MAFF is all year, however three nine-day spawning closures apply for coral reef fin fish as defined in the <i>Fisheries (Coral Reef Fin Fish) Management Plan 2003</i> in October, November and December. These closures have been the subject of a review by the James Cook University and it has been proposed by DPI&F to remove the December closure. This proposal is currently under consideration by various stakeholders.
<b>Commercial harvest 2007</b>	The commercial harvest for 2007 has been reported as 136,554 individuals from 58 species groups.
<b>Value of commercial harvest 2007</b>	There are no Gross Value of Production (GVP) estimates for the fishery. The small size of the fishery, its multi-species focus and variations in market prices make it difficult to accurately estimate GVP.
<b>Take by other sectors</b>	There are no estimates of take from other sectors in the MAFF.  There is no information available on the level of recreational harvest of marine aquarium species as DPI&F's recreational fishing telephone survey and diary rounds are not suitable for estimating recreational catches for the MAFF.  There is no information available on the indigenous harvest of marine aquarium species although take by this sector is considered to be minimal.
<b>Commercial licences issued</b>	There are 49 licenses issued within the MAFF, 44 with an A1 symbol and five with an A2 symbol.
<b>Management arrangements</b>	A variety of input and output controls are used to manage harvest in the MAFF including:  <b>Commercial fishing:</b> <u>Output controls</u> <ul style="list-style-type: none"> <li>• in-possession limits (for A2 symbol holders);</li> <li>• minimum and maximum size limits for some species of fin fish; and</li> <li>• Prohibitions on some species of fin fish</li> </ul> <u>Input controls</u> <ul style="list-style-type: none"> <li>• Entry limited to holder of either an A1 or an A2 fishing symbol</li> <li>• limits on the number of operators under an authority;</li> <li>• hand collection with hand held apparatus;</li> <li>• spatial management limiting effort in key commercial areas (SMAs); and</li> <li>• spatial and seasonal closures.</li> </ul> <b>Recreational fishing:</b> There are in-possession and size limits in place for recreational fishers as well as a prohibition on the use of SCUBA and hookah equipment, and spatial and seasonal closures.
<b>Export</b>	The majority of product is exported live to the American, Asian and European markets.
<b>Bycatch</b>	There is no bycatch in the MAFF as hand collection methods are used. It is important to note that the fishery may collect more than 500

	different species of reef fish however all catch is retained.
<b>Interaction with protected species<sup>1</sup></b>	<p>Operators in Queensland fisheries are required to report any interactions with protected species in the species of conservation interest (SOCI) logbook; including Species protected under Part 13 of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) and species protected under Queensland environment legislation. No interactions with protected species in Commonwealth waters have been reported by MAFF operators. However a small number of species from the family Syngnathidae are collected as part of the fishery within Queensland state waters.</p> <p>Under sections 199, 214, 232 and 256 of the EPBC Act, persons who interact with a protected species must report that interaction within seven days of the incident occurring to the Department of the Environment, Water, Heritage and the Arts (DEWHA).</p> <p>A Memorandum of Understanding (MOU), between the Department of Primary Industries and Fisheries (DPI&amp;F) and DEWHA, for the reporting of fisheries interactions with protected species has been in operation since 2005 to streamline reporting requirements for interactions with protected species, assisting fishers in meeting their requirements under the EPBC Act. As such, the MOU reduces the administrative reporting burden on individual fishers and provides for regular reporting of protected species interactions.</p> <p>Unless exceptional circumstances exist, DEWHA will not take any actions against the authority holders in respect of a failure to meet the seven-day reporting requirement of protected species interactions, if the interaction was recorded in the authority holder's logbook at the time of the interaction and in accordance with the requirements of the MOU.</p>
<b>Ecosystem impacts</b>	Ecosystem impacts of the MAFF are thought to be low, as collection is limited to hand or hand held apparatus.
<b>Impacts on CITES-listed specimens</b>	<p>The assessment considered the possible impacts on species harvested in the MAFF which are listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (see Table 3). As a party to the Convention, Australia must apply all CITES provisions of the EPBC Act to CITES imports and exports as appropriate.</p> <p>CITES species that are or are permitted to be harvested in the MAFF include <i>Hippocampus</i> spp. (family Syngnathidae).</p> <p>As Part 13A of the EPBC Act incorporates the requirements of CITES, there are no changes to the criteria for export approval, aside from administrative changes to the permits issued. Specimens listed above taken from the wild still require a CITES export permit to export the specimens overseas.</p>
<b>Impacts on world heritage property</b>	The assessment also considered the possible impacts on the World Heritage values of the Great Barrier Reef World Heritage Area

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

(GBRWHA). As the MAFF is a hand collection fishery the impacts on the physical environment in the GBRWHA likely to be minimal. In addition the recent rezoning of the GBRWHA has increased the overall level of protection for the reef with approximately 30% of the GBRWHA now designated sanctuary zones. DEWHA believes that the recent rezoning of the reef in addition to the management arrangements in place will provide adequate protection for the World Heritage values of the GBRWHA.

On this basis DEWHA considers that an action taken by an individual fisher, acting in accordance with MAFF management arrangements in force under the Queensland *Fisheries Act 1994* and the Queensland *Fisheries Regulation 2008*, would not be expected to have a significant impact on a matter protected by the EPBC Act.

**Table 2: Progress in implementation of recommendations and conditions made in initial assessment of the MAFF**

Conditions	Progress	Recommended Action
<p>1. Operation of the fishery will be carried out in accordance with the MAFF management regime in force under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 1995</i>.</p>	<p>The operation of the MAFF has been carried out in accordance with the MAFF management arrangements in force under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 1995</i> and <i>2008</i>.</p>	<p>This condition has been met and will continue to apply under the new Wildlife Trade Operation (WTO) declaration for this fishery for the next three years (<b>WTO Condition 1</b>, Table 4).</p>
<p>2. DPI&amp;F will advise the Australian Government Department of the Environment and Heritage (DEH) of any material change to the MAFF's legislated management arrangements that could affect the criteria on which EPBC Act decisions are based, within three months of that change being made.</p>	<p>DPI&amp;F notified DEWHA of a review and subsequent replacement of the <i>Fisheries Regulation 1995</i> with the Queensland <i>Fisheries Regulation 2008</i> on 1 April 2008. As the changes were administrative in nature, the Delegate of the Minister for the Environment, Heritage and the Arts determined that the assessment of the MAFF in 2005 against the EPBC Act criteria remained valid and a reassessment at that time was not required. Therefore the EPBC Act instruments were simply remade to reflect the legislative changes.</p>	<p>This condition has been met and will continue to apply under the new WTO declaration for this fishery for the next three years (<b>WTO Condition 2</b>, Table 4).</p>
<p>3. The declaration covers the MAFF only to the extent that the MAFF relates to specimens that:</p> <ul style="list-style-type: none"> <li>i. are not listed under Part 13 of the EPBC Act, or</li> <li>ii. are listed marine species that are not taken in the Commonwealth marine area,</li> </ul>	<p>The MAFF has operated in accordance with the WTO declaration and although a small number of syngnathids have been harvested within the fishery, this has occurred within state waters in accordance with conditions of the EPBC Act and the WTO declaration.</p>	<p>DEWHA considers this condition to be met. This will no longer apply as a condition to the fishery however under the new WTO declaration for the MAFF the export of species listed under Part 13 of the EPBC Act is prohibited. A second WTO declaration will allow the export of syngnathid species collected in state waters where the exporter has been issued a permit by DEWHA.</p>

<p>iii. are listed marine species that are taken in the Commonwealth marine area according to the specifications of a wildlife conservation plan negotiated between DPI&amp;F and DEH.</p>		
<p>4. Reports to be produced and presented to DEH annually, and to include:</p> <ul style="list-style-type: none"> <li>i. information sufficient to allow assessment of the progress of DPI&amp;F in implementing the recommendations made in the Assessment of the Queensland Marine Aquarium Fish Fishery 2005;</li> <li>ii. a description of the status of the fishery and catch and effort information;</li> <li>iii. a statement of the performance of the fishery against objectives, performance indicators and measures once developed; and</li> <li>iv. research undertaken or completed relevant to the fishery.</li> </ul>	<p>DPI&amp;F reports annually on the MAFF as part of the <i>Annual Status Report Marine Aquarium Fish Fishery</i> which can be found on the DPI&amp;F's website.</p>	<p>This condition has been met and will continue to apply under the new WTO declaration for this fishery for the next three years (<b>WTO Condition 3</b>, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>1. DPI&amp;F to inform the DEH of any intended amendments to the management arrangements that may affect the sustainability of the target stock or negatively impact on protected species or the ecosystem.</p>	<p>DPI&amp;F notified DEWHA of a review and subsequent replacement of the <i>Fisheries Regulation 1995</i> with the Queensland <i>Fisheries Regulation 2008</i> on 1 April 2008. As the changes were administrative in nature, the Delegate of the Minister for the Environment, Heritage and the Arts determined that the assessment of the MAFF in 2005 against the EPBC Act criteria remained valid and a reassessment at that time was not required. Therefore the EPBC Act instruments were simply remade to reflect the legislative changes.</p>	<p>This recommendation has been met and will continue to apply under the new WTO declaration for this fishery for the next three years (<b>WTO Condition 2</b>, Table 4).</p>
<p>2. Within three years DPI&amp;F to develop fishery specific objectives linked to performance indicators and performance measures for target stocks, protected species and impacts on the ecosystem. DPI&amp;F will develop precautionary harvest limits for CITES and EPBC Act listed species within 12 months.</p>	<p>A draft Performance Measurement System (PMS) was developed in 2008 following the outcomes of the Ecological Risk Assessment (ERA).</p> <p>A draft performance measure has been developed to ensure that the harvest of CITES and EPBC Act listed species is managed in an ecologically sustainable way. This measure has been incorporated into the draft PMS.</p> <p>Outputs from the ERA provided the basis for developing performance indicators aimed at measuring management performance in maintaining ecological sustainability of the species supporting the MAFF. The two species identified as moderate risk and the six species</p>	<p>DEWHA commends DPI&amp;F for the completion of the ERA and considers that the results should be incorporated into the PMS as a matter of priority. Once implemented, the performance of the fishery against the requirements of the PMS should be reported in the Annual Status Report (ASR) for the MAFF.</p> <p>DEWHA considers the recommendation to be partially met and ongoing (<b>Recommendation 1</b>, Table 4).</p>

	identified as low risk from the operation of the MAFF, will be monitored through the PMS.	
3. DPI&F to monitor the status of the fishery in relation to the fishery specific objectives, performance indicators and performance measures specified in the MAFF regime once developed. Within 3 months of becoming aware of a breach in a performance indicator or a performance measure not being met, DPI&F to finalise a clear timetable for the implementation of appropriate management responses.	The outcomes of the ERA informed the setting of fishery specific objectives and performance measures for the MAFF. Performance measures will be regularly assessed and reported against in the timeframes specified within the PMS after it is implemented.	<p>DEWHA commends DPI&amp;F for the completion of the ERA and considers that the results should be incorporated into the PMS as a matter of priority.</p> <p>Management response times should be clearly stated as part of the PMS and implemented should a breach in a performance indicator or a performance measure become apparent.</p> <p>Once implemented, the performance of the fishery against the requirements of the PMS should be reported in the ASR for the MAFF.</p> <p>DEWHA considers the recommendation to be partially met and ongoing (<b>Recommendation 1, Table 4</b>).</p>
4. Within 18 months DPI&F to conduct a compliance risk assessment for the MAFF, including specific analysis of compliance risks in the harvest of CITES and EPBC Act listed species. If significant risks are identified, DPI&F to develop and implement strategies to address these risks.	<p>A compliance risk assessment was completed in October 2006. Strategies addressing the identified risks have been developed and are incorporated in the Queensland Boating and Fisheries Patrol (QBFP) current operational plan.</p> <p>Compliance risk assessments are used by the QBFP in undertaking operational planning activities associated with management of the fishery. Through identification and prioritisation of compliance risks associated with the</p>	DEWHA notes that a compliance risk assessment was undertaken in 2006 and is satisfied with the current level of compliance within the MAFF and therefore considers this recommendation complete.

	fishery, planning and operational process in specific areas may be improved.	
5. DPI&F to implement data validation mechanisms for fishery dependent data collected on the harvest of CITES and EPBC Act listed species for the MAFF within 18 months.	Validation of logbook information provides confidence in the accuracy of reporting by commercial fishers. With greater reliance on logbook data for ecological assessments, there is a need for authentication of the information reported by fishers through the logbook program. The logbook validation process for this fishery was completed in May 2007. DPI&F's validation program will be undertaken every two to three years. The next validation exercise for the MAFF is planned for 2009.	DEWHA notes the process taken to ensure authentication of the information reported by fishers in the way of a data validation program and encourages DPI&F in the continuation of this program.  DEWHA considers this recommendation to be met.
6. DPI&F to develop a research strategy for CITES and EPBC Act listed species within three years. Research strategies will be developed for other key target species identified at high risk through the ecological risk assessment process. DPI&F will cooperate with other Australian jurisdictions with marine aquarium fisheries to undertake research.	A five year Research and Development (R&D) plan is being developed for all of Queensland hand harvest fisheries. The plan will identify research priorities and assist research agencies in lobbying for funding. DPI&F plans to complete the recommendation by the due date (end of 2008), incorporating the results of the ERA and any research activities undertaken in other jurisdictions (especially Northern Territory and Western Australia) into the R&D plan for the fishery.	DEWHA commends DPI&F on completing the ERA and suggests the results represent a good starting point for targeted research in the MAFF. Finalisation of the R&D plan is recommended.  DEWHA considers this recommendation to be partially met and ongoing ( <b>Recommendation 3</b> , Table 4).
7. Within two years, DPI&F to undertake an ecological risk assessment to identify key target species CITES and EPBC Act listed species (other than fin fish	An ERA workshop was held in August 2007 to identify ecological sustainability issues in the fishery. From the 600 species presently collected in the fishery, only two species were identified as a moderate risk	DEWHA commends DPI&F on the completion of the ERA and considers that the results should be incorporated into the PMS as a matter of priority. DEWHA consider this recommendation to be met and ongoing ( <b>Recommendation 1</b> , Table 4).

	<p>and six species as a low risk. No areas were identified as at risk from overfishing. The current MAFF logbook is adequately recording data on catch levels of the species recorded at higher than negligible risk for monitoring purposes. A draft document reporting on the outcomes of the ERA has been completed.</p> <p>Outputs from the ERA provided DPI&amp;F with confidence in the management regime in place in the MAFF aimed at ensuring ecological sustainability. The ERA has provided a basis for the development of a PMS for the MAFF.</p>	
<p>8. Within 2 years DPI&amp;F to investigate the potential for localised and serial depletion of key target groups within the fishery as part of the ecological risk assessment process. DPI&amp;F will implement management measures to mitigate any risks identified within 12 months of the completion of the ecological risk assessment.</p>	<p>A sustainability assessment of the 600 species presently collected in the MAFF has been completed. By ranking each species vulnerability characteristics and their potential to recover from impacts, DPI&amp;F identified species potentially at risk from fishing. These species were included as priority issues in the scope of the subsequent ERA workshop. A draft document reporting on the outcomes of the sustainability assessment has been completed.</p> <p>DPI&amp;F advised that outputs from the ERA indicated there is little risk for local concentrations of harvesting effort in the MAFF to lead to localised and serial depletion of key target species. However</p>	<p>DEWHA commends DPI&amp;F for the completion of the ERA however considers that the nature of the MAFF, including the focus of effort in distinct areas adjacent to regional centres, indicates that there is still potential for localised depletion. DEWHA therefore recommends that DPI&amp;F closely monitors catch and effort data at an appropriate spatial scale and investigates alternative methods to ensure that localised and serial depletion does not take place.</p> <p>DEWHA considers this recommendation to be met and ongoing (<b>Recommendation 2</b>, Table 4).</p>

	<p>DEHWA considers that there is still the potential risk of localised depletion occurring.</p>	
<p>9. Within 2 years, DPI&amp;F to develop and implement a process to improve estimates of recreational take and factor these into stock assessments and management controls to ensure overall catch levels are sustainable.</p>	<p>Stock assessments are not deemed appropriate for any of the species targeted in this fishery. The MAFF is a highly diverse fishery with no single species targeted to the extent that it requires an estimate of standing stock. This is supported by the ERA which found that the fishery poses no significant risk to the ecology of the taxa that supports it.</p> <p>While DPI&amp;F are investigating appropriate methods to collect information of recreational harvest, information on collection by the recreational and indigenous sectors is considered a lower priority given:</p> <ul style="list-style-type: none"> <li>a) the low risk the fishery poses to species collected;</li> <li>b) there are no requirements to collect information for stock assessment purposes;</li> <li>c) small size of the recreational and indigenous sectors;</li> <li>d) in-possession limits imposed on recreational collectors of coral reef fish and invertebrate species;</li> <li>e) protection measures in place through marine protected areas (e.g. Great Barrier Reef Marine Park).</li> </ul>	<p>Reliable estimates of all removals from the MAFF including the recreational sector are important to ensure the total harvest is sustainable.</p> <p>DEHWA considers this recommendation to be ongoing (<b>Recommendation 4</b>, Table 4).</p>

**Table 3: The Department of the Environment, Water, Heritage and the Arts (DEWHA) assessment of the MAFF 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**

<p><b>Division 1 Listed threatened species</b>  <b>Section 208A Minister may accredit plans or regimes</b></p>	<p><b>DEWHA assessment of the MAFF</b></p>
<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"> <li>i. made by a State or self-governing Territory; and</li> <li>ii. in force under a law of the State or self-governing Territory;</li> </ul> <p>if <b>satisfied</b> 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 management regime for the MAFF is in force under the <i>Queensland Fisheries Act 1994</i> and the <i>Queensland Fisheries Regulation 2008</i>.</p> <p>The management arrangements for the MAFF do not contain provisions that prohibit the targeted take of listed threatened species within Commonwealth waters, nor do they prevent the targeted take of other species listed under Part 13 of the EPBC Act. Consequently accreditation of the fishery under Part 13 of the EPBC Act cannot be granted at this time.</p>

<p><b>Division 2 Migratory species</b>  <b>Section 222A Minister may accredit plans or regimes</b></p>	<p><b>DEWHA assessment of the MAFF</b></p>
<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"> <li>i. made by a State or self-governing Territory; and</li> <li>ii. in force under a law of the State or self-governing Territory;</li> </ol> <p>if <b>satisfied</b> 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 management regime for the MAFF is in force under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p>The management arrangements for the MAFF do not contain provisions that prohibit the targeted take of listed migratory species within Commonwealth waters, nor do they prevent the targeted take of other species listed under Part 13 of the EPBC Act. Consequently accreditation of the fishery under Part 13 of the EPBC Act cannot be granted at this time.</p>

<p><b>Division 3 Whales and other cetaceans</b>  <b>Section 245 Minister may accredit plans or regimes</b></p>	<p><b>DEWHA assessment of the MAFF</b></p>
<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"> <li>i. made by a State or self-governing Territory; and</li> </ol>	<p>The management regime for the MAFF is in force under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p>

<p>ii. in force under a law of the State or self-governing Territory;</p> <p>if <b>satisfied</b> 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 cetaceans 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 species of cetacean or a population of that species.</p>	<p>The management arrangements for the MAFF do not contain provisions that prohibit the targeted take of cetaceans within Commonwealth waters, nor do they prevent the targeted take of other species listed under Part 13 of the EPBC Act. Consequently accreditation of the fishery under Part 13 of the EPBC Act cannot be granted at this time.</p>
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<p><b>Division 4 Listed marine species</b>  <b>Section 265 Minister may accredit plans or regimes</b></p>	<p><b>DEWHA assessment of the MAFF</b></p>
<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>i. made by a State or self-governing Territory; and</p> <p>ii. in force under a law of the State or self-governing Territory;</p> <p>if <b>satisfied</b> 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 marine species are not killed or injured as a result of the fishing; and</p>	<p>The management regime for the MAFF is in force under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p>The management arrangements for the MAFF do not contain provisions that prohibit the targeted take of listed marine species within Commonwealth waters, nor do they prevent the targeted take of other species listed under Part 13 of the EPBC Act. Consequently accreditation of the fishery under Part 13 of the EPBC Act cannot be granted at this time.</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 some listed marine species are targeted within state waters and if operators in the MAFF wish to target members of listed marine species in Commonwealth waters in the future, a wildlife conservation plan will need to be negotiated between DPI&amp;F and DEWHA to allow such harvest to take place.</p>
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<b>Section 303AA Conditions relating to accreditation of plans, regimes and policies</b>	<b>DEWHA assessment of MAFF</b>
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	DEWHA recommends that the MAFF is not accredited under sections 208A, 222A, 245 and 265.
<p>(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only:</p> <ul style="list-style-type: none"> <li>(a) during a particular period; or</li> <li>(b) while certain circumstances exist; or</li> <li>(c) while a certain condition is complied with.</li> </ul> <p>In such a case, the instrument of accreditation is to specify the period, circumstances or condition.</p>	<p>The management arrangements for the MAFF do not contain provisions that prohibit the targeted take of species listed under Part 13 of the EPBC Act within Commonwealth waters. Consequently accreditation of the fishery under Part 13 of the EPBC Act cannot be granted at this time.</p>
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	

### Part 13A

<b>Section 303 CG Minister may issue permits (CITES species)</b>	<b>DEWHA assessment of the MAFF</b>
<p>(3) The Minister must not issue a permit unless the Minister is satisfied that:</p> <ul style="list-style-type: none"> <li>(a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to: <ul style="list-style-type: none"> <li>i. the survival of any taxon to which the specimen belongs; or</li> </ul> </li> </ul>	<p>Given the management arrangements in place to monitor and control the level of harvest of CITES species (<i>Hippocampus</i> spp. within the family Syngnathidae) and noting the minimal level of CITES species being exported from the fishery, DEWHA considers that the MAFF will not be detrimental to the survival of any taxon to which the CITES specimen belongs in the short to medium term. A condition on the</p>

<p>ii. the recovery in nature of any taxon to which the specimen belongs; or</p> <p>iii. any relevant ecosystem (for example, detriment to habitat or biodiversity).</p>	<p>WTO declaration for the MAFF includes annual reporting requirements, which will allow DEWHA to monitor the status of CITES specimens harvested in the fishery.</p> <p>The CITES specimens harvested from the fishery are not considered to be overfished in Queensland and managements arrangements in place including in possession limits for A2 license holders, limited entry and gear restrictions assist in ensuring their ecologically sustainable harvest.</p> <p>Recognising the nature of harvest and gear used in the fishery (hand collection with the use of hand-held apparatus), the potential for the MAFF to impact unacceptably and unsustainably on any relevant ecosystem generally is considered low. DEWHA is satisfied that the fishery is conducted in a manner that minimises the impact of fishing operations on the ecosystem generally.</p>
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<b>Section 303DC Minister may amend list</b>	<b>DEWHA assessment of the MAFF</b>
<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"> <li>(a) including items in the list;</li> <li>(b) deleting items from the list; or</li> <li>(c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or</li> <li>(d) varying of revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or</li> <li>(e) correcting an inaccuracy or updating the name of a species.</li> </ul>	
<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"> <li>(a) must consult such other Minister or Ministers as the Minister considers appropriate; and</li> </ul>	<p>DEWHA considers that the consultation requirements have been met. The public comment period on the DPI&amp;F submission sought comment on the annual reports for the MAFF and provided sufficient</p>

<p>(b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and</p> <p>(c) may consult such other persons and organisations as the Minister considers appropriate.</p>	<p>opportunity for consultation with other persons and organisations.</p> <p>A letter to the Hon Tim Mulherin MP, Queensland Minister for Primary Industries and Fisheries advises him of the intention to declare the fishery an approved WTO under the EPBC Act.</p>
<p>(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.</p>	<p>The instrument for the MAFF made under sections 303DC will be gazetted and made available on the DEWHA website.</p>

<b>Section 303FN Approved wildlife trade operation</b>	<b>DEWHA assessment of the MAFF</b>
<p>(2) The Minister may, by instrument published in the <i>Gazette</i>, declare that a specified wildlife trade operation is an <b><i>approved wildlife trade operation</i></b> for the purposes of this section.</p>	
<p>(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is <b>satisfied</b> that:</p> <p>(a) the operation is consistent with the objects of Part 13A of the Act; and</p> <p>(b) the operation will not be detrimental to:</p> <ol style="list-style-type: none"> <li>i. the survival of a taxon to which the operation relates; or</li> <li>ii. the conservation status of a taxon to which the operation relates; and</li> </ol>	<p>The MAFF is consistent with objects of Part 13A (listed after this table) as:</p> <ul style="list-style-type: none"> <li>▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1);</li> <li>▪ the operation of the MAFF is unlikely to be unsustainable and threaten biodiversity within the next three years; and</li> <li>▪ the EPBC Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.</li> </ul> <p>DEWHA considers that the MAFF will not be detrimental to the survival or conservation status of a taxon to which it relates within the next three years, given the management measures currently in place, which include limited entry and possession limits.</p>

<p>(ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and</p> <p>(c) if the operation relates to the taking of live specimens that belong to a taxon specified in the regulations – the conditions that, under the regulations, are applicable to the welfare of the specimens are likely to be complied with; and</p> <p>(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.</p>	<p>DEWHA considers that the MAFF will not threaten any relevant ecosystem within the next three years, given the management measures currently in place, which include limited entry and gear restricted to hand collection with the assistance of hand held apparatus.</p> <p>The EPBC Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.</p> <p>No other conditions are specified in relation to commercial fisheries in the EPBC Regulations 2000.</p>
<p>(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have <b>regard</b> to:</p> <p>(a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and</p> <p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<p>DEWHA considers that the MAFF will not have a significant impact on any relevant ecosystem within the next three years, given the management measures currently in place, which include limited entry and gear restrictions being hand collection with hand held apparatus.</p> <p>The management arrangements that will be employed for the MAFF are likely to be effective including possession limits for A2 licence holders, gear restrictions, limited entry, and SMAs.</p>
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have <b>regard</b> to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or</p>	<p>The MAFF will be managed under the Queensland <i>Fisheries Regulation 2008</i> in force under the Queensland <i>Fisheries Act 1994</i>.</p> <p>The Queensland <i>Fisheries Act 1994</i> and Queensland <i>Fisheries</i></p>

<p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	<p><i>Regulation 2008</i> apply throughout Queensland waters.</p> <p>The management arrangements that will be employed for the MAFF are likely to be effective including possession limits outside of SMAs, gear restricted to hand collection with hand held apparatus, and spatial management arrangements.</p> <p>There are five SMAs within the MAFF with access limited to A1 licence holders. Access was granted to A1 licence holders in 2003 based on operators having demonstrated catch history in that area. Not all A1 licence holders have access to all five SMAs.</p>
<p>(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, and only if, the operation is an operation for the taking of specimens and:</p> <p>(d) the operation is a commercial fishery.</p>	<p>The MAFF is a commercial fishery.</p>

<b>Section 303FR Public consultation</b>	<b>DEWHA assessment of the MAFF</b>
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <p>(a) setting out the proposal to make the declaration; and</p> <p>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</p> <p>(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.</p>	<p>DEWHA considers that the consultation requirements of the EPBC Act for declaring a WTO have been met. A public notice, which set out the proposal to declare the MAFF a WTO and included the <i>Marine Aquarium Fish Fishery Annual Status Report 2008</i>, <i>Marine Aquarium Fish Fishery Annual Status Report 2007</i>, and <i>Marine Aquarium Fish Fishery Annual Status Report March 2007</i>, was released for public comment which closed on 30 September 2008 with one submissions received.</p>
<p>(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.</p>	<p>A public notice, which set out the proposal to declare the MAFF a WTO and included the <i>Marine Aquarium Fish Fishery Annual Status Report 2008</i>, <i>Marine Aquarium Fish Fishery Annual Status Report 2007</i>, and <i>Marine Aquarium Fish Fishery Annual Status Report March</i></p>

	2007 was released for public comment on 1 September 2008 and closed on 30 September 2008, 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.	The DEWHA assessment has considered the public comment received on the submission.

<b>Section 303FT Additional provisions relating to declarations</b>	<b>DEWHA assessment of the MAFF</b>
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	A declaration for the MAFF will be made under section 303FN.
(4) The Minister may make a declaration about a plan or operation even though he or she considers that the plan or operation should be the subject of the declaration only: <ul style="list-style-type: none"> <li>(a) during a particular period; or</li> <li>(b) while certain circumstances exist; or</li> <li>(c) while a certain condition is complied with.</li> </ul> <p>In such a case, the instrument of declaration is to specify the period, circumstances or condition.</p>	The standard conditions applied to commercial fishery WTOs include: <ul style="list-style-type: none"> <li>• operation in accordance with the management regime;</li> <li>• notifying DEWHA of changes to the management regime; and</li> <li>• annual reporting in accordance with the requirements of the Australian Government <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i>.</li> </ul> <p>The WTO instrument for the MAFF specifies the standard and any additional conditions applied.</p>
(8) A condition may relate to reporting or monitoring.	One of the standard conditions relates to reporting.
(9) The Minister must, by instrument published in the <i>Gazette</i> , revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.	
(11) A copy of an instrument under section 303FN, or this section is to be made available for inspection on the Internet.	The instrument for the MAFF made under sections 303FN and the conditions under section 303FT will be gazetted and made available on the DEWHA website.

## Part 16

<b>Section 391 Minister must consider precautionary principle in making decisions</b>	<b>DEWHA assessment of the MAFF</b>
(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 must be considered when making a decision to include specimens on the List of Exempt Native Specimens (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.	

## 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 conditions and recommendations to DPI&F for the MAFF

The material submitted by DPI&F demonstrates that the management arrangements for the MAFF meet most of the requirements of the Australian Government *Guidelines for the ecologically sustainable management of fisheries 2nd Edition* (the Guidelines). Management of the MAFF includes limited entry, collection limited to hand or hand held non-mechanical device, possession limits (for A2 licences holders), minimum and maximum size limits, spawning closures for some species of fin fish and prohibitions on some species. There are five geographical areas spread along the breadth of the fishery known as special management areas where it is acknowledged there is potential for increased levels of effort. These have been managed since 2003 by limiting access to these areas to certain operators based on catch history.

Despite the management arrangements in place in the MAFF, DEWHA has identified several risks and uncertainties that must be managed to ensure that impacts are minimised:

- lack of objectives, performance indicators and performance measures;
- the need to monitor management arrangements for species listed under CITES and EPBC Act listed species;
- the need to review and update catch data recording and the ERA to inform the management of the MAFF; and
- the need to introduce measures capable of preventing localised depletion.

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 to medium term. Similarly, it is not likely to threaten any relevant ecosystem in the short to medium term. To contain and minimise the risks in the longer term the recommendations listed below have been made. The key challenges for this fishery will be: to implement a finalised PMS including objectives, performance measures and performance indicators; to maintain management arrangements for species listed under CITES and the EPBC Act; and to prevent localised depletion.

DEWHA considers that until it can be demonstrated that these issues have been adequately dealt with, a three year WTO declaration is appropriate. The WTO declaration will also allow exporters to seek CITES export permits for CITES species (*Hippocampus* spp.) harvested from the fishery.

Syngnathids, which have been harvested in the MAFF in small numbers in state waters, are listed marine species under Part 13 of the EPBC Act. The management arrangements for the MAFF do not contain provisions that prohibit the targeted take of these species within Commonwealth waters, nor do they prevent the targeted take of other species listed under Part 13 of the EPBC Act. Consequently accreditation of the fishery under Part 13 of the EPBC Act cannot be granted at this time. If operators in the MAFF wish to target members of listed marine species in Commonwealth waters in the future, a wildlife conservation plan will need to be negotiated between DPI&F and DEWHA to allow such harvest to take place.

Conditions and recommendations are provided below with a brief explanation of the related issue/intent. Unless a specific time frame is provided, each recommendation and condition must be addressed within the life of the declaration (three years). Note that a standard condition of a WTO is an annual reporting requirement, the details of which are provided in Condition 3.

**Table 4: MAFF Assessment– Summary of Issues, Conditions and Recommendations November, 2008**

	<b>Issue</b>	<b>Condition</b>
1	<p><u>General Management</u> 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, DEWHA needs to be advised of any changes that are made to the management arrangements 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><b>Condition 1:</b> Operation of the fishery will be carried out in accordance with the Marine Aquarium Fish Fishery (MAFF) management arrangements in force under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p><b>Condition 2:</b> The Department of Primary Industries and Fisheries (DPI&amp;F) to inform the Department of the Environment, Water, Heritage and the Arts (DEWHA) of any intended amendments to the management arrangements that may affect the assessment of the MAFF against the criteria on which <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) decisions are based.</p>
2	<p><u>Annual Reporting</u> 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 conditions and recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration.</p> <p>Annual reports should 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</p>	<p><b>Condition 3:</b> DPI&amp;F to produce and present reports to DEWHA annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries 2<sup>nd</sup> Edition</i>.</p>

	<p>on the ecosystem in which it operates; and information outlining progress in implementing conditions and recommendations resulting from the previous accreditation of the fishery (for a complete description of annual reporting requirements, see Appendix B of the Guidelines available from the DEWHA website at <a href="http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html">http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html</a>).</p>	
3	<p><u>Management arrangements for CITES listed species</u></p> <p>This assessment considered the possible impacts on species harvested in the MAFF which are listed under CITES. As a party to the Convention, Australia must apply all CITES provisions of the EPBC Act to CITES imports and exports as appropriate. DEWHA has assessed the possible impacts of fishing in the MAFF on the following CITES species that have been identified by DPI&amp;F to be harvested (and possibly exported) in the fishery:</p> <ul style="list-style-type: none"> <li>• syngnathids (<i>Hippocampus</i> spp.).</li> </ul> <p>To ensure that EPBC Act requirements are met in relation to CITES-listed species, DPI&amp;F will continue to advise DEWHA of any additional CITES species being, likely to be, or able to be harvested in a fishery, including the level of harvest.</p> <p>All CITES specimens listed above still require a CITES export permit to export the specimens.</p>	<p><b>Condition 4:</b> DPI&amp;F to consult with DEWHA prior to a change to the management arrangements for a species listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora or EPBC Act listed species being implemented.</p>
	<b>Issue</b>	<b>Recommendation</b>
4	<p><u>Completion of the PMS</u></p> <p>In the 2005 assessment of the MAFF, DEWHA recommended that DPI&amp;F develop fishery specific objectives linked to performance indicators and performance measures for target, protected species and impacts on the ecosystem as well as precautionary harvest limits for CITES species.</p>	<p><b>Recommendation 1:</b></p> <p>By 1 July 2009 the Department of Primary Industries and Fisheries (DPI&amp;F) to finalise and implement the draft Performance Measurement System (PMS) for the Marine Aquarium Fish Fishery (MAFF). DPI&amp;F to continually monitor</p>

<p>In response to previous recommendations, DPI&amp;F reports that the development of the PMS is in progress and nearing completion following the finalisation of the ERA in August 2007. DEWHA commends DPI&amp;F for the completion of the ERA and considers that the results should be incorporated into the PMS as a matter of priority.</p> <p>A draft PMS was provided to DEWHA as part of the submission for assessment of the MAFF. DPI&amp;F has advised that the document will be a working draft and subject to ongoing reviews and updates to ensure its ability to monitor and maintain management performance against key components of the fishery.</p> <p>Once implemented, the performance of the fishery against the requirements of the PMS should be reported in the ASRs for the MAFF.</p>	<p>and update the PMS annually to ensure it remains current and capable of monitoring the performance of the fishery.</p>
<p><b>5</b> <u>Improved reporting and catch monitoring to inform the management of the MAFF</u></p> <p>Over 500 species of fin fish and invertebrates are collected in the MAFF representing individuals from approximately 40 species groups. The large number of species means that data collected through logbooks will require ongoing monitoring to ensure that reporting is appropriate for the fishery. DEWHA suggests that the logbooks are reviewed periodically to ensure that DPI&amp;F's ability to monitor the catch in the MAFF is maintained. The management of the MAFF relies heavily on logbook data further emphasising the need to ensure the data collected through the program is adequate.</p> <p>DEWHA commends DPI&amp;F for introducing a revised logbook for the MAFF in November 2006 noting that the logbook does not take into account the results of the ERA completed in August 2007.</p> <p>DEWHA notes that the requirement to report syngnathids in the logbook for the MAFF was only communicated to industry in early 2007. While DEWHA acknowledges the historic catch of syngnathids is low, the vulnerability of these species to fishing pressure means amendments to the reporting of these species in the logbooks is required.</p>	<p><b>Recommendation 2:</b> DPI&amp;F to</p> <ul style="list-style-type: none"> <li>a) Ensure reporting in the logbook, including species and spatial reporting, is sufficient to monitor and update the PMS and inform the management of the fishery. Particular consideration should be given to Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and species listed under Part 13 of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act).</li> <li>b) continue to actively monitor catch and effort data and respond to new information to manage species and areas at risk from localised depletion.</li> <li>c) ensure that management tools, including the Ecological Risk Assessment (ERA),</li> </ul>

	<p>DEWHA commends DPI&amp;F on the completion of the ERA and acknowledge DPI&amp;F's commitment to continually improve the assessment to maximise ability to inform management. It is important that the management regime in the MAFF is able to adapt to improved understanding of species harvested in the MAFF to ensure risks to stocks are minimised.</p> <p>DEWHA notes that while the ERA methodology considered the potential for localised depletion the available information on reef fish may limit the ability to fully assess the risk of localised depletion below sustainable levels. Research on reef fish species suggests that larval distribution may be subject to complex spatial patterns and as such the dispersal of these species and their potential to recolonise depleted populations in the Great Barrier Reef may be difficult to predict. DEWHA recommends that DPI&amp;F monitors catch and effort data at an appropriate spatial scale to prevent localised depletion in the MAFF.</p> <p>As new information becomes available DPI&amp;F should incorporate this into the management of the MAFF to maximise the ability to monitor species for unsustainable declines. If localised effort intensifies in the MAFF or localised declines below sustainable levels for individual species are observed then appropriate measures should be implemented to prevent localised depletion.</p> <p>DEWHA recommends that DPI&amp;F continues to review and update reporting in the MAFF to ensure that catch is being monitored adequately and that the ability to monitor the performance of the fishery as required in the PMS. These updates should take into account the results of the current ERA and subsequent reviews as well as species listed under Part 13 of the EPBC Act and CITES.</p>	
6	<p><u>Research and development</u></p> <p>The 2005 assessment of the MAFF recommended that DPI&amp;F develop a research strategy for CITES and EPBC Act listed species. In response, DPI&amp;F advises they are developing a five year research and development plan for all Queensland hand harvest</p>	<p><b>Recommendation 3:</b> DPI&amp;F to finalise the research and development plan for hand harvest fisheries and support research as appropriate in the MAFF. Particular consideration should be</p>

	<p>fisheries. The plan is to be completed by the end of 2008.</p> <p>DEWHA acknowledges that research has been previously conducted on species that are targeted in the MAFF. However targeted research on the impacts of the MAFF and the resilience of target species to fishing pressure has not been conducted. Significant gaps exist in the biology and ecology of species harvested in the MAFF which creates uncertainty in the fishery that needs to be addressed. DEWHA commends DPI&amp;F on completing the ERA and suggest the results represent a good starting point for targeted research in the MAFF. In addition research will give further confidence to the outcomes of the ERA and refine the results.</p> <p>DEWHA reiterates the importance of ensuring that any harvest of CITES and EPBC Act listed species is sustainable. The MAFF is unique in that it has a targeted harvest for some of these species and, although DEWHA acknowledges that harvest rates are low, there is a responsibility to improve available information to ensure that harvest will not be detrimental to these species.</p>	<p>given to CITES and species listed under Part 13 of the EPBC Act.</p>
7	<p><u>Improving estimates of recreational fishing</u></p> <p>In the 2005 assessment of the MAFF, DEWHA recommended DPI&amp;F develop and implement a process to improve estimates of recreational take and factor these into stock assessments and management controls. While DEWHA acknowledges the challenges of conducting a stock assessment with meaningful results in the MAFF, having tangible estimates of removals from the recreational sector is important for ensuring the total harvest is sustainable.</p> <p>While there is currently no information available on the level of recreational harvest of MAFF species DPI&amp;F has advised that appropriate methods to determine harvest in the recreational sector are being investigated. Recreational harvest of MAFF species is managed through possession limits, gear restrictions and prohibitions on some species.</p> <p>DEWHA considers it would be valuable to implement a process to estimate recreational</p>	<p><b>Recommendation 4:</b> DPI&amp;F to investigate and implement appropriately precautionary in-possession limits to manage recreational take in the MAFF.</p>

harvest. It is acknowledged that DPI&F intend to investigate appropriate methods for collecting information on recreational harvest within the fishery and DEWHA supports this initiative.	
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## Acronyms

ASR	Annual Status Report
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DEH	Department of the Environment and Heritage (now DEWHA)
DEWHA	Department of the Environment, Water, Heritage and the Arts
DPI&F	Department of Primary Industries and Fisheries
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ERA	Ecological Risk Assessment
GBRMP	Great Barrier Reef Marine Park
GBRWHA	Great Barrier Reef World Heritage Area
GVP	Gross Value Profit
LENS	List of Exempt Native Specimens
MAFF	Marine Aquarium Fish Fishery
MOU	Memorandum of Understanding
PMS	Performance Measurement System
QBFP	Queensland Boating Fisheries Patrol
R&D	Research and Development
SCUBA	Self-contained underwater breathing apparatus
SMA	Special Management Areas
WTO	Wildlife Trade Operation