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Assessment of the

**Western Australian   
Marine Aquarium Fish Managed Fishery**

October 2016

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**Disclaimer**

This document is an assessment carried out by the Department of the Environment and Energy 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 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 or the Australian Government.

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# Table 1: Summary of the Western Australian Marine Aquarium Fish Managed Fishery.

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| **Key documents relevant to the fishery** | * Western Australian (WA) *Fish Resources Management Act 1994* * WAFish Resources Management Regulations 1995 * WAMarine Aquarium Fish Management Plan 1995 * Prohibition on Fishing (Coral, ‘Live Rock’ and Algae) Order 2007 * Ministerial Exemption No. 2748 – Fish resources Management Act 1994, Section 7(2)(e) – Instrument of Exemption * Status Reports of the Fisheries and Aquatic Resources of Western Australia 2014/15 * Marine Bioregional Plan for the South-west Marine Region 2012 * Marine Bioregional Plan for the North-west Marine Region 2012 |
| **Area** | The Western Australian Marine Aquarium Fish Managed Fishery (WA MAFMF) operates throughout all WA waters, spanning the coastline from the borders with Northern Territory to South Australia; a total gazetted area of 20,781 km2. Operators may fish below high tide water mark on the landward side of the 200m isobath, which extends into the Commonwealth Marine Area. The operation of this fishery occurs within both the South-west and the North-west Marine Regions.  The fishery is most active in waters from Esperance to Broome, with popular areas being around the Capes, Perth, Geraldton, Exmouth and Dampier.  Licensees are not permitted to operate within any waters closed to fishing (e.g. Western Australia Rowley Shoals Marine Park, Cleaverville Reef, Reef Protected Areas and sanctuary zones within marine parks). |
| **Target Species** | The WA MAFMF may target more than 250 species of fish under its management plan to sell as live specimens to the aquarium trade or as broodstock for aquaculture operations. Commonly targeted fish species include chromis, demoiselles, cardinal fishes, goatfish, gobies and hardyheads.  The fishery also harvests coral, algae, live rock, seagrass and invertebrates such as hermit crabs and giant clams. |
| **Fishery status** | Activity in the fishery is described in the *Status Reports of the Fisheries and Aquatic Resources of Western Australia 2014/15* as ‘acceptable’, in recognition of catches remaining within target ranges, with relatively constant effort from year to year. |
| **Gear** | The WA MAFMF is primarily a dive-based fishery that uses hand-held equipment to capture target species from boats of up to eight metres in length. The collection of live rock and corals is undertaken through the use of a hammer and chisel. Fish are mostly captured with hand nets, then collected in buckets that remain attached to a drop line until fishing is completed. During hauling, buckets are held on the drop lines a few metres below the water surface for a period to allow for gradual decompression of the captured fish. |
| **Byproduct and bycatch species** | Due to the highly selective harvest method (hand collection), there is no incidental catch of byproduct or bycatch species. |
| **Season** | The WA MAFMF operators may fish year round, although fishing operations are heavily weather dependent, owing to the small vessels used and the potentially hazardous conditions (e.g. waves and swell) encountered. Therefore, unfavourable weather conditions, especially during the wet season in northern areas, may limit fishing activity. |
| **Commercial harvest** | Summary of the reported catch landed from the WA MAFMF in 2014:  Fish – 20,052 individuals  Syngnathids ­– 359 individuals  Invertebrates[[1]](#footnote-1) – 41,587 individuals  Hard coral – 3,708 kilograms (kg)  Soft coral – 5,851 kg  Living rock – 12,313 kg  Sponges – 2,580 kg  Algae – 345 Litres (l) Live feed (mainly shrimps/prawns) ­– 21 l  The number of individuals taken in any fishing event is usually relatively low, due to the special handling required to maintain a high quality live product. In addition, human constraints (i.e. the physiological effects of decompression) limit the amount of effort in the fishery, with depth of water restricting the extent offshore where collections can occur. |
| **Value of commercial harvest** | The commercial value of the fishery has not been estimated. |
| **Take by other sectors** | Harvest of WA MAFMF target species by the aquarium aquaculture sector in WA is managed as part of total MAFMF harvest.  No other fisheries exploit these species and there is no documented recreational fishery. There are no specific regulations on collecting fish for personal aquaria other than recreational fishing rules and regulations on minimum size and possession limits. There is a complete ban on the recreational take of coral, live rock, and protected species such as seadragons. |
| **Commercial licences issued** | There are 12 licences in the fishery. In 2014, 10 licences were active in the fishery. |
| **Management arrangements** | The WA MAFMF is managed under licence conditions in force under the WA *Fish Resources Management Act 1994,* the WA Fish Resources Management Regulations 1995 and subsidiary legislation. Take of coral, live rock, algae and seadragons is prohibited in WA, so harvest of these species is managed by instruments of exemption, which specify annual catch limits.  The fishery is managed primarily though input controls, in the form of limited entry of the fishery, permanent closed areas and gear restrictions. |
| **Export** | A large proportion of product from this fishery is retained for the domestic market. The primary markets for export are Asia, USA, Canada and Europe (mainly France and Germany). |
| **Interaction with Protected Species[[2]](#footnote-2)** | Due to the highly selective fishing method (hand-collection) and the location of most fishing activity in coastal waters, there have been no incidental interactions with protected species in Commonwealth waters recorded in the WA MAFMF  Within state waters, at least 14 species of syngnathids have been historically targeted in the fishery, although only the following have been targeted in recent years:   * *Hippocampus elongatus* (WA seahorse) * *H. angustus* (western spiny seahorse) * *H. tuberculatus* (knobby seahorse) * *Phyllopteryx taeniolatus* (common or weedy seadragon) * *Stigmatopora argus* (spotted pipefish) * *Trachyrhamphus bicoarctatus* (short-tailed pipefish)   These species are harvested at low numbers and in accordance with an ecological risk assessment undertaken by the WA Department of Fisheries. From late 2016, harvest of *Phycodurus eques* (leafy seadragon) will commence, with a very limited number of adults permitted to be collected as broodstock for aquaculture operations.  Interactions with these listed marine species that do not occur in Commonwealth waters are not an offence under the EPBC Act. The WA MAFMF is only permitted to collect and export Part 13 listed species (including seahorses, pipefish, weedy seadragons and leafy seadragons) that are taken in state waters. |
| **Ecosystem Impacts** | The WA MAFMF is a highly selective and relatively small-scale fishery. Large areas within the fishery boundaries are marine protected areas that are closed to fishing, the remaining areas have limited access for the small vessels used in the fishery. Therefore, the areas where fishing activity could potentially impact the ecosystem are limited. An Ecological Risk Assessment workshop for the fishery held in 2014 found that risk to harvested species from contemporary levels of commercial fishing was negligible for all species considered, except one species where the risk was assessed as low.  The *Marine Bioregional Plan for the South-west Marine Region 2012* and the *Marine Bioregional Plan for the North-west Marine Region 2012* have identified that there are key ecological features present in the area of this fishery, including the Commonwealth marine environments within and adjacent to the west coast inshore lagoons and adjacent to Ningaloo Reef. However, there is no evidence to suggest any systematic change to species diversity or richness caused by the fishery, indicating fishing effort is not having a material impact on the food chain or trophic structure. |
| **Impacts on CITES species** | The assessment considered the possible impacts on species harvested in the WA MAFMF which are listed under CITES[[3]](#footnote-3) (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. Under these provisions, an export permit may only be issued by the CITES Management Authority of the country of export if the CITES Scientific Authority has found that the export will not be detrimental to the wild population. This is known as a non-detriment finding.  CITES species that are or have previously been permitted to be harvested in the WA MAFMF include:   * Seahorses (*Hippocampus* spp.) * Hard coral (e.g. staghorn corals, stony corals), and * Giant clams (*Tridacna squamosa, T. maxima*).   A non-detriment finding was last made for harvest of these species in the WA MAFMF in 2013, prescribing annual harvest limits for CITES listed species from 1 January 2014. The CITES Scientific Authority of Australia has reviewed harvest of these since this time and considered the outcomes of the fishery’s 2014 ERA workshop. The CITES Scientific Authority of Australia is subsequently able to provide the WA MAFMF with remade non-detriment findings for coral, clams and seahorses for harvest within revised specified annual limits from 1 January 2017. The non-detriment findings developed by the CITES Scientific Authority of Australia have been informed by the current level of information available on harvest and distribution of fishing effort on each CITES listed species. |
| **If relevant: Impacts on World Heritage property/RAMSAR site** | The assessment also considered the possible impacts on the World Heritage values of the Shark Bay region of WA, which is an area of major zoological importance, and is renowned for its marine fauna. Shark Bay is also an important nursery ground for larval stages of crustaceans, fishes and jellyfish.  The ‘Prohibition on commercial fishing (Shark Bay Marine Park) order 2004’, No. 7 of 2004, specifies that WA MAFMF operators may only take specimens in the park, which lies within the World Heritage Area, in waters of the Parks General Use Areas.  The Department considers that an action taken by an individual fisher, acting in accordance with the WA MAFMF management regime, would not be expected to have a significant impact on the World Heritage matter protected by the EPBC Act. |

# Table 2: Progress in implementation of conditions made in the 2013 assessment of the WA MAFMF

| **Condition** | **Progress** | **Recommended Action** |
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| **Condition 1:** Operation of the WA Marine Aquarium Managed Fishery will be carried out in accordance with the management regime in force under the Western Australian *Fish Resources Management Act 1994* and the Western Australian *Fish Resources Management Regulations 1995*. | The fishery has operated in accordance with the legislated management regime over the course of the current export approval. | The Department of the Environment considers that this condition has been met.  The Department considers that a new approved wildlife trade operation declaration for the WA MAFMF specify a similar condition (see **Condition 1, Table 4**). |
| **Condition 2:** The Western  Australian Department of Fisheries  to advise the Department of  the Environment of any intended material change to  the fishery's legislated  management regime and  management arrangements that  could affect the criteria on which  *Environment Protection and*  *Biodiversity Conservation Act 1999*  decisions are based. | The WA Department of Fisheries is finalising a review of the management regime of the WA MAFMF which will result in the existing legislative instruments for the fishery being replaced by a new consolidated management plan in 2016/17.  A key component of the new management plan will be the introduction of quota management to enable more effective management of key species. Licence holders in the MAFMF and the aquaculture sector will operate in accordance with a formal Harvest Strategy for the marine aquarium fish resources of Western Australia. The new management regime will also be supported by a new electronic logbook system that will provide for near real time quota management and catch reporting. | The Department considers that this condition has been met.  The Department considers that a new approved wildlife trade operation declaration for the WA MAFMF specify a similar condition (see **Condition 2, Table 4**). |
| **Condition 3:** The Western  Australian Department of Fisheries  to produce and present reports to  the Department of the  Environment annually as per  Appendix B of the *Guidelines for*  *the Ecologically Sustainable*  *Management of Fisheries - 2nd*  *Edition*. | The WA MAFMF is included in the WA Department of Fisheries annual publication, the *Status Reports of the Fisheries and Aquatic Resources of Western Australia* which is provided to the Department. The report includes all available information on the fishery. | The Department considers that this condition has been met.  The Department considers that a new approved wildlife trade operation declaration for the WA MAFMF specify a similar condition (see **Condition 3, Table 4**). |
| **Condition 4:** The Western  Australian Department of Fisheries to:   1. limit harvest of CITES listed species according to current non-detriment findings for each species or species group, and 2. consult with the Department of the Environment prior to a change to the management arrangements for a CITES or EPBC Act species being implemented. | Harvest of CITES listed species by the WA MAFMF and the aquarium aquaculture sector has been managed within the harvest limits outlined in the 2013 non-detriment findings (NDFs) in 2014, 2015 and 2016. Several minor breaches to the NDF limits that occurred during this period were reported to the Department. The introduction of statutory quota management, a formal Harvest Strategy and electronic logbooks under the forthcoming new management plan will improve the fishery’s capacity to limit species-specific harvests.  The WA Department of Fisheries has consulted regularly with the Department during development of the new management regime for the MAFMF. Departmental officers actively participated in an Ecological Risk Assessment workshop for the MAFMF held in 2014, where current and future harvest levels of CITES listed species were considered in a risk based assessment. | The Department considers that this condition is ongoing.  The Department considers that a new approved wildlife trade operation declaration for the WA MAFMF specify a similar condition (see **Condition 4, Table 4**). |
| **Condition 5:** The Western Australian Department of Fisheries to:   1. undertake an ecological risk assessment (ERA) in 2014, with actions underway to address any recommendations resulting from the assessment by January 2015 2. finalise and adopt the Harvest Strategy for the fishery by December 2015 3. consider further research on CITES species in the context of the outcomes of the ERA, including on species’ distribution and abundance in areas of high fishing effort. | The WA Department of Fisheries held an ERA in October 2014, with an appropriate range of experts and using the global standard for risk assessment and risk management. While the ERA report is yet to be finalised, recommendations from the ERA have been used in the development of a new management plan and harvest strategy for the fishery.  A harvest strategy has been developed that considers the impact of both the MAFMF and the aquaculture sector on the target species, as well as potential impacts on protected species, habitats and other ecological components. While the new harvest strategy has yet to be formally adopted (anticipated in mid 2017), collection of product by the MAFMF and the aquaculture sector in 2015 and 2016 has been consistent with the draft strategy.  The WA Department of Fisheries is currently undertaking a joint FRDC funded research project (FRDC Project Number 2014-029) with the Queensland and Northern Territory Governments titled ‘*Stock assessment and vulnerability of commercially harvested corals across northern Australia*’. The outcomes of this three year project should support more detailed stock assessments of coral species in the future. | The Department considers that this condition has been partially met and is ongoing.  The Department considers that a new approved wildlife trade operation declaration for the WA MAFMF specify a similar condition (see **Condition 5, Table 4**). |
| **Part 13:** Persons fishing in accordance with the management regime for the Western Australian Marine Aquarium Fish Managed Fishery in force under the Western Australian *Fish Resources Management Act 1994* and the WA Fish Resources Management Regulations 1995 do not retain any species listed under Part 13 of the EPBC Act taken, killed or injured in Commonwealth waters as a result of fishing. | No interactions with species listed under Part 13 of the EPBC Act have been reported by the MAFMF from Commonwealth waters during 2013/14, 2014/15 and 2015/16. | The Department considers that this condition has been met and is ongoing.  The Department considers that a new approved wildlife trade operation declaration for the WA MAFMF specify a similar condition (see **Part 13** **Condition, Table 4**). |

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| **Recommendation** | **Progress** | **Recommended Action** |
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| **Recommendation 1:** The Western Australian Department of Fisheries to investigate and implement measures to improve species level identification for giant clams. | The WA Department of Fisheries has undertaken extensive consultation with fishers to ensure improved species level identification for all species, including giant clams. Past catch returns have been updated to improve accuracy as well as improved catch reporting by operators in recent years. The new management plan will introduce electronic logbooks which will provide further improvements in species level reporting with MAFMF operators having to select from a predefined list of over  1,500 species when submitting logbook returns. | The Department of the Environment considers that this recommendation has been met. |

# Table 3: The Department of the Environment and Energy’s assessment of the Western Australian Marine Aquarium Fish Managed Fishery (WA MAFMF) 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 at http://www.comlaw.gov.au/.

**Part 13**

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| **Division 1 Listed threatened species**  **Section 208A Minister may accredit plans or regimes** | **The Department’s assessment of the WA MAFMF** |
| (1) Minister may, by instrument in writing, accredit for the purposes of this Division:   1. a plan of management, or a policy, regime or any other arrangement, for a fishery that is:    1. made by a State or self-governing Territory; and    2. in force under a law of the State or self-governing Territory;   if **satisfied** that:   1. 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    1. 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. | The WA MAFMF will be managed under the WA *Fish Resources Management Act 1994* and the WA Fish Resources Management Regulations 1995.  The management regime for the WA MAFMF was most recently accredited under Part 13 of the EPBC Act in December 2013. The Department considers that the management arrangements have not significantly changed and continue to require persons engaged in fishing under the plan to take all reasonable steps to ensure that listed threatened species are not killed or injured as a result of the fishing.  There have been no interactions with listed threatened species reported in Commonwealth waters and the likelihood of interactions with listed threatened species is low. Therefore, the Department considers the current operation of the WA MAFMF is not likely to adversely affect the survival or recovery in nature of any threatened species. The Department therefore recommends that the management regime for the WA MAFMF be reaccredited under Part 13 of the EPBC Act. |

**Part 13** *(cont.)*

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| **Division 2 Migratory species**  **Section 222A Minister may accredit plans or regimes** | **The Department’s assessment of the WA MAFMF** |
| (1) Minister may, by instrument in writing, accredit for the purposes of this Division:   1. a plan of management, or a policy, regime or any other arrangement, for a fishery that is:    1. made by a State or self-governing Territory; and    2. in force under a law of the State or self-governing Territory;   if **satisfied** that:  (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   * + 1. 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. | The WA MAFMF will be managed under the WA *Fish Resources Management Act 1994* and the WA Fish Resources Management Regulations 1995.  The management regime for the WA MAFMF was most recently accredited under Part 13 of the EPBC Act in December 2013. The Department considers that the management arrangements have not significantly changed and continue to require persons engaged in fishing under the plan to take all reasonable steps to ensure that listed migratory species are not killed or injured as a result of the fishing.  There have been no interactions with listed migratory species reported in Commonwealth waters and the likelihood of interactions with listed migratory species is low. Therefore, the Department considers the current operation of the WA MAFMF is not likely to adversely affect the conservation status of any listed migratory species. The Department therefore recommends that the management regime for the WA MAFMF be reaccredited under Part 13 of the EPBC Act. |

**Part 13** *(cont.)*

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| **Division 3 Whales and other cetaceans**  **Section 245 Minister may accredit plans or regimes** | **The Department’s assessment of the WA MAFMF** |
| (1) Minister may, by instrument in writing, accredit for the purposes of this Division:   1. a plan of management, or a policy, regime or any other arrangement, for a fishery that is:    1. made by a State or self-governing Territory; and    2. in force under a law of the State or self-governing Territory;   if **satisfied** that:   1. 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 2. 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. | The WA MAFMF will be managed under the WA *Fish Resources Management Act 1994* and the WA Fish Resources Management Regulations 1995.  The management regime for the WA MAFMF was most recently accredited under Part 13 of the EPBC Act in December 2013. The Department considers that the management arrangements have not significantly changed and continue to require persons engaged in fishing under the plan to take all reasonable steps to ensure that whales and other cetaceans are not killed or injured as a result of the fishing.  There have been no interactions reported with whales and other cetaceans in Commonwealth waters and the likelihood of interactions with cetaceans is low. Therefore, the Department considers the current operation of the WA MAFMF is not likely to adversely affect the conservation status of a species of cetacean or a population of that species. The Department therefore recommends that the management regime for the WA MAFMF be reaccredited under Part 13 of the EPBC Act. |

**Part 13** *(cont.)*

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| **Division 4 Listed marine species**  **Section 265 Minister may accredit plans or regimes** | **The Department’s assessment of the WA MAFMF** |
| (1) Minister may, by instrument in writing, accredit for the purposes of this Division:   1. a plan of management, or a policy, regime or any other arrangement, for a fishery that is:    1. made by a State or self-governing Territory; and    2. in force under a law of the State or self-governing Territory;   if **satisfied** that:   1. 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 2. 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. | The WA MAFMF will be managed under the WA *Fish Resources Management Act 1994* and the WA Fish Resources Management Regulations 1995.  The management regime for the WA MAFMF was most recently accredited under Part 13 of the EPBC Act in December 2013. The Department considers that the management arrangements have not significantly changed and continue to require persons engaged in fishing under the plan to take all reasonable steps to ensure that listed marine species are not killed or injured as a result of the fishing.  Syngnathids (seahorses, pipefishes and seadragons), which are listed marine species under Part 13 of the EPBC Act, may be harvested within WA state waters only. The Department considers that the managed harvest of these species from WA waters is not inconsistent with a Part 13 accreditation.  There have been no interactions with listed marine species in Commonwealth waters and the likelihood of interactions with listed marine species is low. Therefore, the Department considers the current operation of the WA MAFMF is not likely to adversely affect the conservation status of a listed marine species or a population of that species. The Department therefore recommends that the management regime for the WA MAFMF be reaccredited under Part 13 of the EPBC Act. |

**Part 13** *(cont.)*

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| **Section 303AA Conditions relating to accreditation of plans, regimes and policies** | **The Department’s assessment of the WA MAFMF** |
| (1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265. | The Department recommends that the WA MAFMF be accredited under sections 208A, 222A, 245 and 265. |
| (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:   1. during a particular period; or 2. while certain circumstances exist; or 3. while a certain condition is complied with.   In such a case, the instrument of accreditation is to specify the period, circumstances or condition. | To satisfy the requirements of section 265, the Department recommends that the WA MAFMF be accredited under Part 13 subject to a condition that requires the WA Department of Fisheries to ensure that the management regime continues to require fishers not to retain any species listed under Part 13 of the EPBC Act taken, killed or injured in Commonwealth waters as a result of fishing. |
| (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**

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| **Section 303BA Objects of Part 13A** |
| 1. The objects of this Part are as follows: 2. to ensure that Australia complies with its obligations under CITES[[4]](#footnote-4) and the Biodiversity Convention; 3. to protect wildlife that may be adversely affected by trade; 4. to promote the conservation of biodiversity in Australia and other countries; 5. to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way; 6. to promote the humane treatment of wildlife; 7. to ensure ethical conduct during any research associated with the utilisation of wildlife; and 8. to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife. |

**Part 13A**

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| **Section 303 CG Minister may issue permits (CITES species)** | **The Department’s assessment of the WA MAFMF** |
| (3) The Minister must not issue a permit unless the Minister is satisfied that:  (a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to:   1. the survival of any taxon to which the specimen belongs; or 2. the recovery in nature of any taxon to which the specimen belongs; or 3. any relevant ecosystem (for example, detriment to habitat or biodiversity). | The WA Department of Fisheries has agreed to set precautionary catch limits for CITES specimens (seahorses, hard corals and giant clams) over the period of the wildlife trade operation declaration, and to continue to review management arrangements for CITES listed species. The Department, along with the CITES Scientific Authority of Australia, considers that the harvest of CITES specimens from the WA MAFMF until 18 October 2019 will not be detrimental to the survival of any taxon to which the CITES specimen belongs.  Recognising the low-impact nature of the harvest, gear used (e.g. hand held nets, hand-held instruments etc.) and the small scale of the fishery, the potential for the WA MAFMF to impact unacceptably and unsustainably on any relevant ecosystem generally is considered low. |

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| **Section 303DC Minister may amend list** | **The Department’s assessment of the assessment of the WA MAFMF** |
| (1) Minister may, by instrument in published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:   1. including items in the list; 2. deleting items from the list; or 3. imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or 4. varying of revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or 5. correcting an inaccuracy or updating the name of a species. | Product harvested in the WA MAFMF, excluding species listed under CITES, has been included in the list of exempt native specimens since January 2013, subject to the fishery remaining the subject of a declaration as an approved wildlife trade operation. No amendment to the list of exempt native specimens is proposed. |

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| **Section 303FN Approved wildlife trade operation** | **The Department’s assessment of the WA MAFMF** |
| (2) The Minister may, by instrument published in the *Gazette*, declare that a specified wildlife trade operation is an ***approved wildlife trade operation*** for the purposes of this section. |  |
| (3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is **satisfied** that:   1. the operation is consistent with the objects of Part 13A of the Act; and      1. the operation will not be detrimental to:    1. the survival of a taxon to which the operation relates; or    2. the conservation status of a taxon to which the operation relates; and   (ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and   1. 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 2. such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied. | The Department considers that the operation of the WA MAFMF is consistent with objects of Part 13A (listed above) as:   * there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1) * there are management arrangements in place to ensure that the harvest of CITES species from the fishery will not be detrimental to the survival of the taxon to which the specimen belongs in the short term * the operation of the WA MAFMF during the period of the recommended declaration as an approved wildlife trade operation is unlikely to be unsustainable or threaten biodiversity, and * the *Environment Protection and Biodiversity Conservation Regulations 2000* (EPBC Regulations) do not specify fish, coral or clams as classes of animals in relation to the welfare of live specimens.   The Department considers that the operation of the WA MAFMF during the period of the recommended declaration as an approved wildlife trade operation will not be detrimental to the survival or conservation status of a taxon to which it relates, nor will it threaten any relevant ecosystem, given the management measures currently in place, which include limited entry, permanent closed areas, gear restrictions (hand held nets) and catch limits. A condition on the wildlife trade operation declaration for the WA MAFMF requires the WA Department of Fisheries to limit the take of CITES listed species according to non-detriment findings for each species or species group.  The EPBC Regulations do not specify fish, coral or clams as classes of animals in relation to the welfare of live specimens.  No other conditions are specified in relation to commercial fisheries in the EPBC Regulations. |
| (4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have **regard** to:   1. the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and 2. the effectiveness of the management arrangements for the operation (including monitoring procedures). | The Department considers that the operation of the WA MAFMF during the period of the recommended declaration as an approved wildlife trade operation will not threaten any relevant ecosystem, given the management measures currently in place, which include limited entry, permanent closed areas, gear restrictions and catch limits.  The management arrangements that will be employed for the WA MAFMF are likely to be effective. These arrangements are described in the WA Marine Aquarium Fish Management Plan 1995, in force under WA legislation. |
| (5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have **regard** to:   1. 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 2. whether the legislation applies throughout the State or Territory concerned; and 3. whether, in the opinion of the Minister, the legislation is effective. | The WA MAFMF will be managed under the WA *Fish Resources Management Act 1994* and the WA Fish Resources Management Regulations 1995. This legislation applies throughout waters managed by the WA Department of Fisheries and is considered likely to be effective. |
| (10) For the purposes of section 303FN, an operation is a wildlife trade operation if, an only if, the operation is an operation for the taking of specimens and:   1. the operation is a commercial fishery. | The WA MAFMF is a commercial fishery. |

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| **Section 303FR Public consultation** | **The Department’s assessment of the WA MAFMF** |
| (1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:   1. setting out the proposal to make the declaration; and 2. setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and 3. inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal. | The Department considers that the consultation requirements of the EPBC Act for declaring an approved wildlife trade operation have been met. A public notice, which set out the proposal to declare the WA MAFMF an approved wildlife trade operation and included the WA Department of Fisheries' submission, was released for public comment which closed on 18 October 2016. One comment was 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 declare the WA MAFMF an approved wildlife trade operation and included the WA Department of Fisheries' submission, was released for public comment on 19 September 2016 and closed on 18 October 2016, a total of 20 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. | One comment was received during the public comment period. This comment noted that the management strategies outlined in the submission from the WA Department of Fisheries were generally appropriate and noted support for the new electronic logbook system. Further technical comments were made about clarification of the fishery’s name, biosecurity and animal husbandry practices which have been provided to the WA Department of Fisheries for consideration. Comments about the need for appropriate spatial management and the need to ensure sufficient protected areas are in place and have been considered in this assessment. |

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| **Section 303FT Additional provisions relating to declarations** | **The Department’s assessment of the assessment of the WA MAFMF** |
| (1) This section applies to a declaration made under section 303FN, 303FO or 303FP. | A declaration for the WA MAFMF 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:   1. during a particular period; or 2. while certain circumstances exist; or 3. while a certain condition is complied with.   In such a case, the instrument of declaration is to specify the period, circumstances or condition. | The standard conditions applied to the declaration of a commercial fishery as an approved wildlife trade operation include:   * operation in accordance with the management regime; * notifying the Department of changes to the management regime; and * annual reporting in accordance with the requirements of the   Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition.*  The instrument of declaration for the WA MAFMF specifies the conditions applied to the declaration. |
| (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 *Gazette*, 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 WA MAFMF made under sections 303FN and the conditions under section 303FT will be gazetted and made available on the Department’s website. |

**Part 16**

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| **Section 391 Minister must consider precautionary principle in making decisions** | **The Department’s assessment of the WA MAFMF** |
| (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 in the preparation of advice in relation to decisions under section 303DC and section 303FN. |
| (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. |  |

**Part 12**

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| **Section 176 Bioregional Plans** | **The Department’s assessment of the WA MAFMF** |
| (5) Subject to this Act, the Minister must have regard to a bioregional plan in making any decision under this Act to which the plan is relevant. | The *Marine Bioregional Plan for the South-west Marine Region 2012* and the *Marine Bioregional Plan for the North-west Marine Region 2012* have been considered in the preparation of advice in relation to decisions under section 303FN.Harvesting of living resources has been identified as a pressure within both marine bioregions in which this fishery operates. However, there is no evidence to suggest that harvesting of living resources by this fishery is causing systematic change to species diversity or richness within this area, indicating fishing effort is not having a material impact on the food chain or trophic structure. |

**The Department of the Environment and Energy’s final conditions for the Western Australian (WA) Department of Fisheries for the   
WA Marine Aquarium Fish Managed Fishery (MAFMF)**

The material submitted by the WA Department of Fisheries demonstrates that the management arrangements for the WA MAFMF continue to meet most of the requirements of the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries* - *2nd edition*.

The Department considers that overall the management regime for the WA MAFMF aims to ensure that fishing is conducted in a manner that does not lead to over-fishing and that stocks are not currently overfished. Management arrangements in the fishery include limited entry, permanent closed areas and gear restrictions.

**Ecosystem impacts**

Taking into account the lack of bycatch and byproduct due to the hand collection methods used in the fishery and the precautionary management arrangements, the management regime for the WA MAFMF provides for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

This includes complying with all CITES1 provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act), which apply to the harvest of hard corals, seahorses and giant clams in the fishery. The CITES Scientific Authority of Australia completed non-detriment findings to inform the minister's (or the minister's delegate) consideration of this matter for individual decisions about whether to grant export permits for hard coral, giant clams and seahorses. The non-detriment findings concluded that take of these species in the WA MAFMF in accordance with the management arrangements will not be detrimental to these species or the ecosystems in which these species are found.

While the fishery is relatively well managed, to continue to meet the requirements of CITES[[5]](#footnote-5), the Department has identified a number of risks and uncertainties that must be managed to ensure impacts are minimised, including:

* the need for further information on key species within the fishery, including CITES listed species, and
* strengthening the fishery's management arrangements for CITES-listed species, through finalising an Environmental Risk Assessment (ERA) and finalising the draft harvest strategy for the fishery, in consultation with the Department.

The Department considers that the declaration of the harvest operations of the WA MAFMF as an approved wildlife trade operation under Part 13A of the EPBC Act for three years, until 18 October 2019 is appropriate. The Department considers that the declaration should be subject to the conditions listed in Table 4 below.

Unless a specific time frame is provided, each condition must be addressed within the period of the declaration.

The Department also considers that it is appropriate to reaccredit the management regime for the fishery under Part 13 of the EPBC Act subject to a condition listed in Table 4 below, requiring the WA Department of Fisheries to ensurethatspecies listed under Part 13 of the EPBC Act are not taken, killed or injured in a Commonwealth area.

# Table 4: WA MAFMF Assessment – Summary of Issues and Conditions, October 2016

| **Issue** | **Condition** |
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| General Management  Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of the Environment and Energy (the Department) 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, EPBC Act protected species or the ecosystem. | **Condition 1:** Operation of the fishery will be carried out in accordance withthemanagement regimeunder the WA *Fish Resources Management Act 1994* and the WA Fish Resources Management Regulations 1995.  **Condition 2:** WA Department of Fisheries to inform the Department of any intended material changes to the fishery’s management arrangements that may affect the assessment against which *Environment Protection and Biodiversity Conservation Act 1999* decisions are made. |
| Annual Reporting  It is important that reports be produced and presented to the Department annually in order for the performance of the fishery and progress in implementing the conditions in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration. Annual reports should follow Appendix B to the *Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition* 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 EPBC Act protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing the Department’s conditions. Electronic copies of the guidelines are available from the Department’s website at <http://www.environment.gov.au/resource/guidelines-ecologically-sustainable-management-fisheries> | **Condition 3:** The WA Department of Fisheries to produce and present reports to the Department annually as per Appendix B of the *Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition.* |
| CITES and EPBC Act listed species  The WA MAFMF harvests a number of species listed under the Convention on International Trade In Endangered Species of Wild Fauna and Flora (CITES) as well as a small number of species protected as listed marine species under Part 13 of the EPBC Act (syngnathids). Harvest of all of these species is subject to special requirements under the EPBC Act, in recognition of the international conservation status of these species.  As a party to the Convention, Australia must apply all CITES provisions of the EPBC Act to CITES imports and exports as appropriate. Prior to permitting export of CITES-listed species, the CITES Scientific Authority of Australia must establish that allowing export will not be detrimental to the species’ survival. This is known as a non-detriment finding.  The following groups of protected species are currently permitted to be harvested in the WA MAFMF:   * hard corals (e.g. staghorn corals, stony corals), * giant clams (*Tridacna* species), and * syngnathids (seahorses and seadragons).   The WA Department of Fisheries has provided all available information on the harvest of these species in the fishery, which the CITES Scientific Authority of Australia has considered in making non-detriment findings for ongoing harvest of these species. These non-detriment findings may be reviewed as new information becomes available.  To ensure that EPBC Act requirements for CITES listed species continue to be met, harvest of these species must be constrained within the limits described within the non-detriment findings. Information on any additional CITES species or EPBC Act listed species likely to be harvested in the fishery must be provided to the Department prior to harvest, to enable inclusion of these species on future export approvals.  Specimens of CITES listed species that are not listed on the schedule of a current wildlife trade operation cannot be issued a CITES export permit. | **Condition 4:** The WA Department of Fisheries to:   1. limit harvest of CITES listed species according to current non-detriment findings for each species or species group, and 2. consult with the Department prior to a change to the management arrangements for a CITES or EPBC Act listed species being implemented. |
| Ongoing management of harvest  The WA Department of Fisheries has undertaken significant work in recent years to develop stronger management arrangements in this fishery. This has included an ecological risk assessment (ERA) workshop for the fishery in 2014 and development and implementation of a new catch recording system to provide more precise information of harvest of each species. A draft harvest strategy has also been developed, for use in conjunction with a new management plan to consolidate the fishery’s existing complex management arrangements.  In addition to the ERA process, the WA Department of Fisheries is working collaboratively with the Queensland and Northern Territory governments on a Fisheries Research and Development Corporation (FRDC) project to assess the vulnerability of commercially harvested corals across northern Australia (FRDC 2014/029).This three year project is underway and will further add to available data on hard corals.  Over the duration of the new wildlife trade operation, finalising the ERA report and formally implementing the new management plan and harvest strategy will be essential to appropriately and transparently managing harvest of all species in the fishery, including protected species. Work to complete these documents should be done in consultation with the Department. Fishery independent research should also continue in the fishery, such as the work described in the FRDC joint project | **Condition 5:** In consultation with the Department, the WA Department of Fisheries to:   1. complete the ecological risk assessment (ERA) report 2. finalise and adopt the harvest strategy for the fishery, and 3. consider further research on CITES species to better define species' distribution and abundance in areas of high fishing effort. |
| Harvest of EPBC listed species  The WA MAFMF harvests low numbers of syngnathids, which are protected under the EPBC Act as listed marine species, in accordance with the fishery’s draft harvest strategy. Harvest of these species in Commonwealth waters is prohibited, however interactions that do not occur in Commonwealth waters are not an offence under the EPBC Act. Therefore, WA MAFMF is only permitted to collect and export Part 13 listed species (including seahorses, pipefish, weedy seadragons and leafy seadragons) that are taken in state waters. | **Part 13 Condition:** Persons fishing in accordance with the management regime for the WA MAFMF in force under the WA *Fish Resources Management Act 1994* and the WA Fish Resources Management Regulations 1995 do not retain any species listed under Part 13 of the EPBC Act taken, killed or injured in Commonwealth waters as a result of fishing. |

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1. including anemones, sea urchins, sea cucumbers, starfish and shrimp [↑](#footnote-ref-1)
2. ‘Protected species’ means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and listed threatened, listed marine and listed migratory species. [↑](#footnote-ref-2)
3. Convention on International Trade in Endangered Species of Wild Fauna and Flora [↑](#footnote-ref-3)
4. Convention on International Trade in Endangered Species of Wild Fauna and Flora [↑](#footnote-ref-4)
5. 1 Convention on International Trade in Endangered Species of Wild Fauna and Flora [↑](#footnote-ref-5)