



**Australian Government**

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**Department of the Environment and Energy**

Assessment of the  
**Coral Sea Fishery**

December 2017

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This report should be attributed as '*Assessment of the Coral Sea Fishery December 2017*, Commonwealth of Australia 2017'.

### 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 and Energy 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 and Energy or the Australian Government.

While reasonable efforts have been made to ensure that the contents of this report are factually correct, the Australian Government does not accept responsibility for the accuracy or completeness of the contents, and shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of this report. You should not rely solely on the information presented in the report when making a commercial or other decision.

## **EXECUTIVE SUMMARY OF THE ASSESSMENT OF THE CORAL SEA FISHERY**

In February 2017 the Australian Fisheries Management Authority (AFMA) submitted an application to the Department of the Environment and Energy for assessment of the Coral Sea Fishery under the *Environment Protection and Biodiversity Conservation Act 1999* as a Wildlife Trade Operation.

The Department of the Environment and Energy assessed this application against the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'. Public consultation was undertaken on the application between 23 February and 30 March 2017. No comments were received.

The Coral Sea Fishery is a small but diverse fishery which includes collection of species listed on the Convention on International Trade of Endangered Species (CITES). The fishery manages uncertainty and risk in a precautionary way which is likely to be effective. This includes monitoring and management of fishery impacts on all species, including target, byproduct, bycatch, and EPBC Act-listed species. Measures are also in place to manage impacts on habitats and ecological communities.

Conditions detailed in Section 4 of this report pertain to the collection of CITES-listed species and the implementation of commitments forecast for completion within the term of the proposed EPBC Act approvals.

The Department considers that, subject to the conditions specified in Section 4 of this report, the Coral Sea Fishery should be declared an approved Wildlife Trade Operation for three years, until 18 December 2020. Product derived from the fishery should be included on the List of Exempt Native Specimens while a declaration for an approved wildlife trade operation is in place.

Unless a specific time frame is provided, each condition must be addressed within the period of the approved Wildlife Trade Operation declaration for the fishery.

**SECTION 1: ASSESSMENT SUMMARY OF THE CORAL SEA FISHERY AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2<sup>ND</sup> EDITION), CONSISTENT WITH THE EPBC ACT.**

	Meets	Partially meets	Does not meet	Details
<b>Guidelines</b>				
Management regime	9 of 9	0 of 9	0 of 9	The management strategy is well developed, highly precautionary, and effectively deals with uncertainty and risk.
Principle 1 (target stocks)	6 of 11 & 2 N/A	3 of 11	0 of 11	Information on fish stocks is limited. However, management is designed to monitor fishery performance and investigate any changes, and manage uncertainty and risk in a precautionary way. It is considered to be effective.
Principle 2 (bycatch and TEPS)	10 of 12 & 2 N/A	0 of 12	0 of 12	The management strategy is considered effective. It includes monitoring and risk mitigation for all species, including bycatch and EPBC Act listed species.
Principle 2 (ecosystem impacts)	1 of 5	3 of 5	1 of 5	Management is precautionary and designed to minimise potential impacts. It is informed by ecological risk assessments, however these do not include habitats and communities. The assessments are scheduled to be reviewed in 2018–2019 at which time habitats and communities will be assessed and more tailored data collection and risk mitigation can be considered. There are no listed ecological communities in the area of the fishery.
<b>EPBC requirements</b>				
Part 12	Meets			Not applicable. There are no relevant Marine Bioregional Plans for the Coral Sea Fishery.
Part 13	Meets			No interactions with EPBC Act listed species based on available logbook and observer records (1 January 2012 – 30 September 2017).
Part 13A	Meets			The fishery is consistent with the Objects of Part 13A. Declaration of the fishery as a Wildlife Trade Operation for three years, until 18 December 2020 is recommended, subject to conditions detailed in Section 4 of this report.
Part 16	Meets			Management is highly precautionary and regularly reviewed.

### **Assessment history**

- 1<sup>st</sup> assessment finalised 2004 – 3 conditions; 10 recommendations.
- 2<sup>nd</sup> assessment finalised 2007 – 5 conditions.
- 3<sup>rd</sup> assessment finalised 2010 – 9 conditions; 2 recommendations.
- 4<sup>th</sup> assessment finalised 2013 – 4 conditions; 3 recommendations.

### **Fishery reporting**

- **Annual reports** in accordance with the Guidelines for the Ecologically Sustainable Management of Fisheries (2nd edition) were received by the Department in February 2015 and July 2016.
- **Fishery status** has also been assessed and reported by the Australian Government Bureau of Agricultural and Resource Economics and Sciences:
  - [Fishery Status Reports 2016 – Coral Sea Fishery](#)
  - [Fishery Status Reports 2017 – Coral Sea Fishery](#)

### **Key links**

**Fishery information page** on agency website: <http://www.afma.gov.au/fisheries/coral-sea-fishery/>

**Management plan:** There is no formal management plan under the *Fisheries Management Act 1991*. Management arrangements are summarised in the Coral Sea Fishery Management Arrangements Booklet 2017: <http://www.afma.gov.au/fisheries-services/fisheries-management-plans/>

### **Enforcing legislation**

- [Commonwealth Fisheries Management Act 1991](#)
- [Commonwealth Fisheries Management Regulations 1992](#)

### **Harvest Strategies**

- [Hand Collection Sector: Aquarium Fish](#)
- [Hand Collection Sector: Lobster and Trochus](#)
- [Hand Collection Sector: Sea Cucumber](#)
- [Line, Trawl and Trap Sector Sub-fisheries](#)
- [Coral Sea Fishery Bycatch and Discard WorkPlan](#)

### **Ecological Risk Assessments**

- [Aquarium Sector](#)
- [Auto Longline Sector](#)
- [Demersal Longline Sector](#)
- [Demersal Trawl Sector](#)
- [Finfish Trap Sector](#)
- [Lobster and Trochus Sector](#)
- [Other Line Sector](#)
- [Sea Cucumber Sector](#)

## SECTION 2: DETAILED ANALYSIS OF THE CORAL SEA FISHERY AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2<sup>ND</sup> EDITION)

	Comment
<b>THE MANAGEMENT REGIME</b>	
The management regime does not have to be a formal statutory fishery management plan as such, and may include non-statutory management arrangements or management policies and programs. The regime should:	
Be documented, publicly available and transparent.	<b>Meets</b> Management arrangements are well documented and available on the <a href="#">AFMA website</a> . Management is consultative and transparent, although records of meetings are not published on the AFMA website.
Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public	<b>Meets</b> Management arrangements are developed in consultation with fishery stakeholders. This typically occurs through annual stakeholder meetings, however there have been no recent meetings pending announcement of the fishing methods and areas permitted in the Coral Sea Commonwealth Marine Reserve.  AFMA also holds two to three environmental forums annually where stakeholders can engage on fisheries issues.
Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process.	<b>Meets</b> The Coral Sea Fishery Stakeholder Group provides advice to AFMA on management arrangements in the fishery as required, and may include fishery scientists, fishing industry members, environmental non-government organisation, recreational fishing sector, and state and Commonwealth government representatives.
Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured.	<b>Meets</b> Harvest strategies are in place for all sectors of the fishery and detail objectives and performance criteria by which management performance is measured. These harvest strategies are regularly reviewed and published on the <a href="#">AFMA website</a> .
Be capable of controlling the level of harvest in the fishery using input and/or output controls.	<b>Meets</b> The fishery uses a mixture of input and output controls, including temporal and spatial management tools, size, quota and gear restrictions, and has a range of precautionary management triggers built in to the harvest strategies for each of the fishery sectors.
Contain the means of enforcing critical aspects of the management arrangements.	<b>Meets</b> AFMA uses a risk-based approach to inform its monitoring and enforcement program. All vessels are required to operate approved vessel monitoring systems at all times and when carried, onboard observers also report on compliance. All fishers are required to complete logbook catch records, and all catch (except from the aquarium sector) must be unloaded to a licensed fish receiver. This allows logbook catch records to be verified against catch disposal records.
Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria.	<b>Meets</b> Harvest strategies are in place for all fishery sectors. These include a range of precautionary triggers designed to monitor and manage the performance of the fishery. Performance under the strategies is reviewed annually.

<p>Be capable of assessing, monitoring and avoiding, remedying or mitigating any adverse impacts on the wider marine ecosystem in which the target species lives and the fishery operates.</p>	<p><b>Meets</b>  <a href="#">Ecological risk assessments</a> have been completed for all sectors, and permit conditions and harvest strategy triggers ensure risks to species, habitats and communities are managed in a precautionary way.</p> <p>A subsequent semi-quantitative assessment was undertaken in 2009 focussing on chondrichthyan and listed protected species. This assessment identified a number of species as potentially being at high risk (Table 9 <a href="#">AFMA submission</a>). Permit conditions and a <a href="#">Bycatch and Discarding Workplan</a> seek to manage some of these risks, but not all. However, in all cases compulsory logbook reporting includes provision for reporting bycatch and interactions with protected species. This, coupled with observer coverage in the sectors that recorded risks allows AFMA to detect and respond to emerging issues and potential impacts. Ecological risk assessments are expected to be reviewed in 2018–2019.</p>
<p>Requires compliance with relevant threat abatement plans, recovery plans, the National Policy on Fisheries Bycatch, and bycatch action strategies developed under the policy.</p>	<p><b>Meets</b>  The fishery complies with all relevant threat abatement plans, recovery plans, the National Policy on Fisheries Bycatch, as well as bycatch action strategies developed under the policy.</p> <p>The <a href="#">Bycatch and Discarding Workplan</a> for the fishery spans 2010 to 2012, was to be reviewed in 2012, and a new work plan developed and implemented within six months thereafter (i.e. by 2013).</p> <p>AFMA has put this review on hold while the Commonwealth Marine Reserves are being reviewed but expects to deliver an updated fishery-wide <a href="#">Bycatch and Discarding Workplan</a> during 2018–2019. AFMA continues to monitor triggers under the harvest strategy.</p>
<p><b>PRINCIPLE 1</b> - A fishery must be conducted in a manner that does not lead to over-fishing, or for those stocks that are over-fished, the fishery must be conducted such that there is a high degree of probability the stock(s) will recover.</p>	
<p><b>Objective 1</b> - The fishery shall be conducted at catch levels that maintain ecologically viable stock levels at an agreed point or range, with acceptable levels of probability.</p>	
<p><b>Information requirements</b></p>	
<p><b>1.1.1</b> There is a reliable information collection system in place appropriate to the scale of the fishery. The level of data collection should be based upon an appropriate mix of fishery independent and dependent research and monitoring.</p>	<p><b>Meets</b>  Fishers are required to report all fishing activity in approved daily fishing logbooks. All retained catch (except that taken by the aquarium sector) must then be unloaded to a licensed fish receiver, and verified weights reported to AFMA. All vessels are required to operate approved vessel monitoring systems at all times, which provides information on vessel location. Onboard observers are also required to be carried when requested by AFMA, and minimum coverage levels are prescribed for line, trap and trawl sectors.</p>
<p><b>Assessment</b></p>	
<p><b>1.1.2</b> There is a robust assessment of the dynamics and status of the species/fishery and periodic review of the process and the data collected. Assessment should include a process to identify any reduction in biological diversity and /or reproductive capacity. Review should take place at regular intervals but at least every three years.</p>	<p><b>Partially meets</b>  Information on the fishery is relatively limited. Harvest strategies are designed to monitor activity and respond to changes in catch (quantity, composition and catch rates) and effort (including spatial distribution) in a precautionary way. Fishery performance under the harvest strategies is periodically reviewed (<a href="#">AFMA 2016</a>) and strategies are adjusted as necessary in consultation with relevant experts and other stakeholders.</p>
<p><b>1.1.3</b> The distribution and spatial structure of the stock(s) has been established and factored into management responses.</p>	<p><b>Partially meets</b>  Information is relatively limited. Harvest strategies are designed to monitor activity and manage the fishery in a precautionary way. Fishery performance under the harvest strategies is periodically reviewed and strategies are adjusted as necessary in consultation with relevant experts and other stakeholders (<a href="#">AFMA 2016</a>).</p>

<p><b>1.1.4</b> There are reliable estimates of all removals, including commercial (landings and discards), recreational and indigenous, from the fished stock. These estimates have been factored into stock assessments and target species catch levels.</p>	<p><b>Meets</b> Daily fishing logbooks and catch disposal records provide reliable records of all commercial catch. There is no indigenous fishing and very limited recreational fishing in the area given its distance from the coast.</p>
<p><b>1.1.5</b> There is a sound estimate of the potential productivity of the fished stock/s and the proportion that could be harvested.</p>	<p><b>Partially meets</b> Information is relatively limited. Harvest strategies are designed to monitor activity and manage the fishery in a precautionary way. Fishery performance under the harvest strategies is periodically reviewed and strategies are adjusted as necessary in consultation with relevant experts and other stakeholders (<a href="#">AFMA 2016</a>).</p>
<p><b>Management responses</b></p>	
<p><b>1.1.6</b> There are reference points (target and/or limit), that trigger management actions including a biological bottom line and/or a catch or effort upper limit beyond which the stock should not be taken.</p>	<p><b>Meets</b> Harvest strategies are in place for all sectors of the fishery and include precautionary triggers and limits. These harvest strategies are regularly reviewed and published on the <a href="#">AFMA website</a>.</p>
<p><b>1.1.7</b> There are management strategies in place capable of controlling the level of take.</p>	<p><b>Meets</b> The fishery uses a mixture of input and output controls, including temporal and spatial management tools, size, quota and gear restrictions, and has a range of precautionary management triggers built in to the harvest strategies for each of the fishery sectors.  Fishing is also limited to some extent by the vast area, small number of licenses, significant areas closed to fishing, inclement weather and distance from the coast.</p>
<p><b>1.1.8</b> Fishing is conducted in a manner that does not threaten stocks of byproduct species.</p>	<p><b>Meets</b> Harvest strategies are in place for all sectors of the fishery and include precautionary triggers and limits, relevant to all species. These harvest strategies are regularly reviewed and published on the <a href="#">AFMA website</a>.  <a href="#">Ecological risk assessments</a> have been completed for all sectors and did not find any byproduct species to be at high risk. Ecological risk assessments are expected to be reviewed in 2018–2019.</p>
<p>(Guidelines 1.1.1 to 1.1.7 should be applied to byproduct species to an appropriate level)</p>	
<p><b>1.1.9</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p><b>Meets</b> The fishery is small in scale and relatively data poor. However management is precautionary and actively seeks to engage uncertainty to manage risk. The fishery has a high chance of maintaining ecologically viable stock levels.</p>
<p><b>If overfished, go to Objective 2: If not overfished, go to PRINCIPLE 2:</b></p>	
<p><b>Objective 2</b> - Where the fished stock(s) are below a defined reference point, the fishery will be managed to promote recovery to ecologically viable stock levels within nominated timeframes.</p>	
<p><b>Management responses</b></p>	
<p><b>1.2.1</b> A precautionary recovery strategy is in place specifying management actions, or staged management responses, which are linked to reference points. The recovery strategy should apply until the stock recovers, and should aim for recovery within a specific time period appropriate to the biology of the stock.</p>	<p><b>Not applicable</b> No stocks are classified overfished or are subject to overfishing (<a href="#">Patterson et al. 2017</a>).</p>

<p><b>1.2.2</b> If the stock is estimated as being at or below the biological and / or effort bottom line, management responses such as a zero targeted catch, temporary fishery closure or a 'whole of fishery' effort or quota reduction are implemented.</p>	<p><b>Not applicable</b> No stocks are classified overfished or are subject to overfishing (<a href="#">Patterson et al. 2017</a>).</p>
<p><b>PRINCIPLE 2</b> - Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.</p>	
<p><b>Objective 1</b> - The fishery is conducted in a manner that does not threaten bycatch species.</p>	
<p><b>Information requirements</b></p>	
<p><b>2.1.1</b> Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.</p>	<p><b>Meets</b> Daily fishing logbooks provide reliable records of all commercial catch, including any bycatch. Onboard observers, when carried, also provide detailed information on bycatch including species composition and abundance.</p>
<p><b>Assessments</b></p>	
<p><b>2.1.2</b> There is a risk analysis of the bycatch with respect to its vulnerability to fishing.</p>	<p><b>Meets</b> <a href="#">Ecological risk assessments</a> have been completed for all fishery sectors and did not find any bycatch species to be at high risk. Ecological risk assessments are expected to be reviewed in 2018–2019.  A subsequent semi-quantitative assessment was undertaken in 2009 focussing on chondrichthyan and listed protected species. This assessment identified a number of species as potentially being at high risk (Table 9 <a href="#">AFMA submission</a>). Permit conditions and a <a href="#">Bycatch and Discarding Workplan</a> are aimed at managing some of these risks, but not all. However, in all cases compulsory logbook reporting includes provision for reporting bycatch and interactions with protected species. This, coupled with observer coverage in the sectors that recorded risks allows AFMA to detect and respond to emerging issues and potential impacts. Permit conditions and harvest strategy triggers also contribute to managing the risks to all species, habitats and communities.</p>
<p><b>Management responses</b></p>	
<p><b>2.1.3</b> Measures are in place to avoid capture and mortality of bycatch species unless it is determined that the level of catch is sustainable (except in relation to endangered, threatened or protected species). Steps must be taken to develop suitable technology if none is available.</p>	<p><b>Meets</b> Harvest strategies are in place for all sectors of the fishery and include precautionary triggers and limits, relevant to all species. These harvest strategies are regularly reviewed and published on the <a href="#">AFMA website</a>.  The <a href="#">Bycatch and Discarding Workplan</a> spans 2010–2012 and was to be reviewed in 2012 to assess its effectiveness and the risk profile of the fishery. It states that a new work plan must be developed and implemented within six months (i.e. by 2013). AFMA has put this review on hold while the Commonwealth Marine Reserves are being reviewed but expects to deliver an updated fishery-wide <a href="#">Bycatch and Discarding Workplan</a> during 2018–2019. In the meantime, AFMA is continuing to monitor triggers under the harvest strategy.</p>
<p><b>2.1.4</b> An indicator group of bycatch species is monitored.</p>	<p><b>Meets</b> Harvest strategies monitor catches of all species within the fishery.</p>
<p><b>2.1.5</b> There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.</p>	<p><b>Meets</b> Harvest strategies contain triggers that initiate further analysis and assessment when significant changes in catch, (including proportional of total catch) or effort are detected.</p>
<p><b>2.1.6</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p><b>Meets</b> This fishery is unlikely to threaten the sustainability of bycatch species.</p>

<b>Objective 2</b> - The fishery is conducted in a manner that avoids mortality of, or injuries to, endangered, threatened or protected species and avoids or minimises impacts on threatened ecological communities.	
<b>Information requirements</b>	
<b>2.2.1</b> Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities.	<b>Meets</b> All fishing activity must be reported using AFMA approved logbooks. These logbooks include provision to report protected species interactions. In the aquarium sector however, Fisheries Queensland provide logbook services to AFMA and it is unclear whether these state issued logbooks provide similar capacity to report protected species interactions. The risk posed by this sector has been assessed as low (Table 9 <a href="#">AFMA submission</a> ) and no interactions have been reported by observers or via logbooks for any sector ( <a href="#">AFMA protected species interaction reports 1 January 2012 to 30 September 2017</a> ).
<b>Assessments</b>	
<b>2.2.2</b> There is an assessment of the impact of the fishery on endangered, threatened or protected species.	<b>Meets</b> <a href="#">Ecological risk assessments</a> have been completed for all sectors and a further semi-quantitative assessment was undertaken in 2009 focussing on chondrichthyan and listed protected species. This 2009 assessment identified a number of species as potentially being at high risk (Table 9 <a href="#">AFMA submission</a> ). Ecological risk assessments are expected to be reviewed in 2018–2019.
<b>2.2.3</b> There is an assessment of the impact of the fishery on threatened ecological communities.	<b>Not applicable</b> No threatened ecological communities were identified in the area of the fishery.
<b>Management responses</b>	
<b>2.2.4</b> There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.	<b>Meets</b> The 2009 ecological assessment identified a number of species as potentially being at high risk (Table 9 <a href="#">AFMA submission</a> ). Permit conditions and a <a href="#">Bycatch and Discarding Workplan</a> seek to manage some of these risks, but not all. Compulsory logbook reporting includes provision for reporting bycatch and interactions with protected species. This, coupled with observer coverage in the sectors that recorded risks allows AFMA to detect and respond to emerging issues and potential impacts. No interactions have been reported by observers or via logbooks for any sector ( <a href="#">AFMA protected species interaction reports 1 January 2012 to 30 September 2017</a> ).
<b>2.2.5</b> There are measures in place to avoid impact on threatened ecological communities.	<b>Not applicable</b> No threatened ecological communities were identified in the area of the fishery.
<b>2.2.6</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	<b>Meets</b> This fishery is conducted in a manner that avoids mortality of, or injuries to, endangered, threatened or protected species.
<b>Objective 3</b> - The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally.	
<b>Information requirements</b>	
<b>2.3.1</b> Information appropriate for the analysis in 2.3.2 is collated and/or collected covering the fisheries impact on the ecosystem and environment generally.	<b>Does not meet</b> Information on the fishery's impact on the ecosystem and environment is not collected.

<b>Assessment</b>	
<p><b>2.3.2</b> Information is collected and a risk analysis, appropriate to the scale of the fishery and its potential impacts, is conducted into the susceptibility of each of the following ecosystem components to the fishery.</p> <ol style="list-style-type: none"> <li>1. Impacts on ecological communities <ul style="list-style-type: none"> <li>• Benthic communities</li> <li>• Ecologically related, associated or dependent species</li> <li>• Water column communities</li> </ul> </li> <li>2. Impacts on food chains <ul style="list-style-type: none"> <li>• Structure</li> <li>• Productivity/flows</li> </ul> </li> <li>3. Impacts on the physical environment <ul style="list-style-type: none"> <li>• Physical habitat</li> <li>• Water quality</li> </ul> </li> </ol>	<p><b>Partially meets</b></p> <p>Although information on the fisheries impact on the ecosystem and environment is not collected, ecological risk assessments have been undertaken and included habitats and ecological communities (<a href="#">qualitative Level 1, Scale Intensity, Consequence Analyses</a>).</p> <p>Although there is a low probability, there is a potentially high consequence associated with translocation of species in the fishery. This was classified as a major risk.</p> <p>In the trawl sector, fishing with and without capture, and fishing disturbance to the physical processes, were also classified as a major risk.</p> <p>Ecological risk assessments are expected to be reviewed in 2018–2019.</p>
<b>Management responses</b>	
<p><b>2.3.3</b> Management actions are in place to ensure significant damage to ecosystems does not arise from the impacts described in 2.3.1.</p>	<p><b>Partially meets</b></p> <p>Although there is no specific ecological risk mitigation strategy for the fishery, a range of precautionary management triggers are included in the harvest strategies for each sector.</p> <p>There are very few licenses (16) and very little fishing effort undertaken each year. The fishery spans a vast area which includes significant areas closed to fishing. These factors contribute to mitigating the risk of significant ecosystems damage.</p>
<p><b>2.3.4</b> There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a predetermined level, or where action is indicated by application of the precautionary approach.</p>	<p><b>Partially meets</b></p> <p>Although there are no specific ecosystem indicators, the harvest strategies for the fishery include a range of precautionary triggers designed to initiate further analysis and assessment. Fishery performance under these strategies is also regularly assessed, most recently in 2016.</p>
<p><b>2.3.5</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p><b>Meets</b></p> <p>The fishery is small in scale, very diverse and operates in remote areas. These factors make information collection difficult and contribute to uncertainty in the fishery. However, the management regime is highly precautionary and actively monitors and responds to information as it becomes available. In this way it is able to minimise its impacts on the ecosystem.</p>

### SECTION 3: ASSESSMENT OF THE CORAL SEA FISHERY AGAINST THE REQUIREMENTS OF PARTS 12, 13 (13A) AND 16 OF THE EPBC ACT

The table below is not a complete or exact representation of the EPBC Act. It is intended to show that the relevant sections and components of the EPBC Act have been taken into account in the formulation of advice on the fishery in relation to decisions under Part 13 and Part 13A.

#### Part 12

Section 176 Bioregional Plans	Comment
(5) Minister must have regard to relevant bioregional plans	The Coral Sea Fishery is not subject to any existing Marine Bioregional Plans.

#### Part 13

Accreditable plan, regime or policy (Divisions 1, 2, 3 and 4)	Comment
s. 208A (1) (a-e) , s.222A (1) (a-e), s.245A (1) (a-e), s.265 (1) (a-e)  Does the fishery have an accreditable plan of management, regime or policy?	<b>Yes</b> There is an accreditable management regime, outlined in the <a href="#">Coral Sea Fishery Management Arrangements Booklet 2017</a> . The fishery was accredited under Section 33 of the EPBC Act on 12 January 2006.
<b>Division 1 Listed threatened species, Section 208A Minister may accredit plans or regimes</b>	
(f) Will the plan, regime or policy require fishers 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?	<b>Yes</b> The management regime is precautionary and requires fishers to take all reasonable steps to mitigate risks to listed threatened species. These measures have been demonstrated to be effective.
(g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species.	<b>No</b> No interactions with listed threatened species have been reported by observers or via logbooks for any sector, based on available records (1 January 2012 to 30 September 2017).
<b>Division 2 Migratory species, Section 222A Minister may accredit plans or regimes</b>	
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing?	<b>Yes</b> The management regime is precautionary and requires fishers to take all reasonable steps to mitigate risks to listed migratory species. These measures have been demonstrated to be effective.
(g) And, is the fishery likely to adversely affect the conservation status of a listed migratory species or a population of that species?	<b>No</b> No interactions with listed migratory species have been reported by observers or via logbooks for any sector, based on available records (1 January 2012 to 30 September 2017).
<b>Division 3 Whales and other cetaceans, Section 245 Minister may accredit plans or regimes</b>	
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing?	<b>Yes</b> The management regime is precautionary and requires fishers to take all reasonable steps to mitigate risks to cetaceans. These measures have been demonstrated to be effective.
(g) And is the fishery likely to adversely affect the conservation status of a species of cetacean or a population of that species?	<b>No</b> No interactions with cetaceans have been reported by observers or via logbooks for any sector, based on available records (1 January 2012 to 30 September 2017).

<b>Division 4 Listed marine species, Section 265 Minister may accredit plans or regimes</b>	
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing?	<b>Yes</b> The management regime is precautionary and requires fishers to take all reasonable steps to mitigate risks to listed marine species. These measures have been demonstrated to be effective.
(g) And is the fishery likely to adversely affect the conservation status of a listed marine species or a population of that species?	<b>No</b> No interactions with listed marine species have been reported by observers or via logbooks for any sector, based on available records (1 January 2012 to 30 September 2017).
<b>Section 303AA Conditions relating to accreditation of plans, regimes and policies</b>	
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	Accreditation under sections 208A, 222A, 245 and 265 is <b>recommended</b> .
(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: (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with.  In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	<b>No conditions required.</b>
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	<b>Not applicable</b>

## Part 13A

<b>Section 303BA Objects of Part 13A</b>	
(1) The objects of this Part are as follows: (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.	
<b>Section 303 CG Minister may issue permits (CITES species)</b>	<b>Comment</b>
(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: i. the survival of any taxon to which the specimen belongs; or	Given the management arrangements in place to monitor and control the harvest of CITES-listed species, and the low level of harvest from the fishery, the Department considers that the Coral Sea Fishery will not be detrimental to the survival of any taxon to which the CITES specimen belongs in the short to medium term.

<p>ii. the recovery in nature of any taxon to which the specimen belongs; or</p>	<p>The CITES specimens harvested from the fishery are not considered to be overfished in the Coral Sea Fishery and managements arrangements including catch limits and triggers for further assessment help ensure that harvest is ecologically sustainable.</p>
<p>iii. any relevant ecosystem (for example, detriment to habitat or biodiversity).</p>	<p>The small scale and highly precautionary management regime in the Coral Sea Fishery means the potential for unacceptable and unsustainable impact on any relevant ecosystem is low. The Department is satisfied that the fishery is conducted in a manner that minimises the impact of fishing operations on the ecosystem generally.</p>
<p><b>Section 303DC Minister may amend list (non CITES species)</b></p>	
<p>(1) The Minister may, by legislative instrument, amend the list referred to in section 303DB [list of exempt native specimens] by:</p> <p>(a) doing any of the following:</p> <p>(i) including items in the list;</p> <p>(ii) deleting items from the list;</p> <p>(iii) imposing a condition or restriction to which the inclusion of a specimen in the list is subject;</p> <p>(iv) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or</p> <p>(b) correcting an inaccuracy or updating the name of a species.</p>	<p>The Department recommends that specimens from the Coral Sea Fishery, other than:</p> <ul style="list-style-type: none"> <li>• specimens that belong to species listed under Part 13 of the EPBC Act (other than a species listed in the conservation dependent category), and</li> <li>• specimens that belong to taxa listed under section 303CA of the EPBC Act (Australia's CITES list),</li> </ul> <p>be included in the list of exempt native specimens while the fishery is subject to a declaration as an approved wildlife trade operation.</p>
<p>(1A) In deciding to amend the LENS, the Minister must rely primarily on outcomes of Part 10, Div 1 or 2 assessment</p>	<p>The Coral Sea Fishery was assessed under Part 10 of the EPBC Act in October 2004. As a result of the assessment, the Department considered that actions taken under the management regime for the fishery would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area. The fishery was subsequently accredited under Section 33 of the EPBC Act in January 2006. Since that time, additional management measures have been employed which should further mitigate the risk of impacts on the environment, including fishery wide ecological risk assessment and the introduction of harvest strategies for all sectors.</p> <p>The Department recommends that the LENS is amended under section 303DC(1)(a) to include product derived from the Coral Sea Fishery (excluding any CITES species) while the specimens are covered by an approved wildlife trade operation declaration under section 303FN.</p>
<p>(1C) The above does not limit matters that may be considered when deciding to amend LENS.</p>	<p><b>Meets</b> The Coral Sea Fishery consistent with Objects of 13A – see assessment above.</p>
<p>(3) Before amending the LENS, the Minister must consult:</p> <p>(a) other Minister or Ministers as appropriate; and</p> <p>(b) other Minister or Ministers of each State and self-governing Territory as appropriate; and</p> <p>(c) other persons and organisations as appropriate.</p>	<p><b>Meets</b> The submission for assessment was available for comment on the Department's website from 23 February to 30 March 2017, a total of 23 business days. No comments were received.</p>
<p><b>Section 303FN Approved wildlife trade operation</b></p>	
<p>(2) The Minister may, by instrument published in the <i>Gazette</i>, declare that a specified wildlife trade operation is an <b>approved wildlife trade operation</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>Meets</b></p> <p>The operation of the Coral Sea Fishery is consistent with the Objects of Part 13A – see assessment above.</p>
<p>(b) the operation will not be detrimental to:</p> <p>i. the survival of a taxon to which the operation relates; or</p> <p>ii. the conservation status of a taxon to which the operation relates; and</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><b>Meets</b></p> <p>The fishery will not be detrimental to the survival or conservation status of a taxon to which it relates, nor will it threaten any relevant ecosystem, within the next <b>three years</b>, given the management measures in place. These measures include:</p> <ul style="list-style-type: none"> <li>• limited entry to each sector of the fishery</li> <li>• vessel and gear restrictions, including requirements for bycatch mitigation</li> <li>• species size limits</li> <li>• spatial controls, and</li> <li>• harvest strategies for each sector, which include catch-and-effort triggers, total catch limits and monitoring and review mechanisms</li> </ul> <p>Australia's CITES Scientific Authority has assessed the proposed harvest of certain CITES-listed species from the fishery and found the harvest is unlikely to be detrimental to the survival of any taxon to which the CITES specimens belong or for the harvest of to be detrimental to any relevant ecosystem. CITES-listed species are humphead Maori wrasse (<i>Cheilinus undulates</i>) and coral species belonging to the family Acroporidae.</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><b>Not applicable</b></p> <p>The Environment Protection and Biodiversity Conservation Regulations 2000 do not specify crustacea or fish as a class of animal in relation to the welfare of live specimens.</p>
<p>(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.</p>	<p><b>Not applicable</b></p> <p>No other conditions are specified in relation to commercial fisheries in the Environment Protection and Biodiversity Conservation 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>Meets</b></p> <p>The Coral Sea Fishery will not have a significant impact on any relevant ecosystem within the next <b>three years</b>, given the management measures in place, which include the arrangements described above at s303FN 3(b).</p>
<p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<p><b>Meets</b></p> <p>The management arrangements that will be employed for the Coral Sea Fishery as outlined in this assessment are likely to be effective.</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 Territory concerned; and</p> <p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	<p><b>Meets</b></p> <p>The fishery will be managed in accordance with the arrangements outlined in the Coral Sea Fishery Management Arrangements Booklet 2017.</p> <p>The <i>Fisheries Management Act 1991</i> and Fisheries Management Regulations 1992 (also apply to the Coral Sea Fishery, and throughout all Commonwealth waters.</p> <p>This legislation is likely to be effective.</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>(a) the operation is a commercial fishery.</p>	<p><b>Meets</b></p> <p>The Coral Sea Fishery is a commercial fishery.</p>
<p>(10A) In deciding whether to declare that a commercial fishery is an approved wildlife trade operation for the purposes of this section, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>The Coral Sea Fishery was assessed under Part 10 of the EPBC Act in October 2004. Actions taken under the management regime were considered unlikely to have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area. Additional measures have since been employed in the fishery which should further mitigate environmental risks. These include fishery-wide ecological risk assessments and mitigation strategies, and harvest strategies for all fishery sectors.</p>
<p>(10B) Subsection (10A) does not limit the matters that may be taken into account in deciding whether to declare that a fishery is an approved wildlife trade operation for the purposes of this section.</p>	
<p><b>Section 303FR Public consultation</b></p>	
<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>(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><b>Meets</b></p> <p>A public notice, which set out the proposal to declare the Coral Sea Fishery an approved Wildlife Trade Operation and included the application from the Australian Fisheries Management Authority, was released for public comment from 23 February 2017 until 30 March 2017, a total of 23 business days.</p>
<p>(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.</p>	<p><b>Not applicable</b></p> <p>No public comments about the proposal were received.</p>
<p><b>Section 303FT Additional provisions relating to declarations</b></p>	
<p>(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.</p>	<p>A declaration for the Coral Sea Fishery will be made under section 303FN.</p>

<p>(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:</p> <p>(a) during a particular period; or</p> <p>(b) while certain circumstances exist; or</p> <p>(c) while a certain condition is complied with.</p> <p>In such a case, the instrument of declaration is to specify the period, circumstances or condition.</p>	<p>The standard conditions applied to commercial fishery wildlife trade operations include:</p> <ul style="list-style-type: none"> <li>• operation in accordance with the management regime</li> <li>• notifying the Department of changes to the management regime, and</li> <li>• annual reporting in accordance with the requirements of the Australian Government Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition.</li> </ul> <p>The Wildlife Trade Operation instrument for the Coral Sea Fishery specifies these standard conditions and others in Section 4 of this report.</p>
<p>(8) A condition may relate to reporting or monitoring.</p>	<p>Conditions specified in Section 4 of this report include reporting requirements.</p>
<p>(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.</p>	
<p>(11) A copy of an instrument under section 303FN, or this section is to be made available for inspection on the internet.</p>	<p>The instrument for the Coral Sea Fishery made under sections 303FN and the conditions under section 303FT will be registered as a notifiable instrument and made available through the Department's website.</p>

## Part 16

<p><b>Section 391 Minister must consider precautionary principle in making decisions</b></p>	<p><b>Comment</b></p>
<p>(1) Minister must take account of precautionary principle.</p> <p>(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.</p>	<p><b>Meets</b></p> <p>Precautionary measures are considered to be in place to prevent any serious or irreversible environmental damage being caused by this fishery.</p>

## SECTION 4: CORAL SEA FISHERY – SUMMARY OF ISSUES REQUIRING CONDITIONS, DECEMBER 2017

Issue	Condition
<p><b><u>General Management</u></b></p> <p>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 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.</p>	<p><b>Condition 1</b> Operation of the Coral Sea Fishery will be carried out in accordance with management arrangements in force under the Commonwealth <i>Fisheries Management Act 1991</i>, Fisheries Management Regulations 1992 and relevant Commonwealth fisheries policies.</p> <p><b>Condition 2</b> The Australian Fisheries Management Authority (AFMA) to inform the Department of the Environment and Energy of any intended material changes to the Coral Sea Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.</p>
<p><b><u>Annual Reporting</u></b></p> <p>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.</p> <p>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.</p> <p>Electronic copies of the guidelines are available from the Department's website at <a href="http://www.environment.gov.au/resource/guidelines-ecologically-sustainable-management-fisheries">http://www.environment.gov.au/resource/guidelines-ecologically-sustainable-management-fisheries</a></p>	<p><b>Condition 3</b> AFMA to produce and present reports to the Department of the Environment and Energy annually as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2<sup>nd</sup> Edition</i>.</p>

**Management of species listed in the Convention on the International Trade of Endangered Species (CITES)**

The Australian Fisheries Management Authority has sought approval for the collection and export of certain species listed in CITES Appendix 2. These species are humphead Maori wrasse (*Cheilinus undulates*) and coral species belonging to the family Acroporidae.

The CITES Scientific Authority of Australia has assessed the potential impact of the proposed collection for the purposes of a non-detriment finding.

The CITES Scientific Authority of Australia has concluded that collection in accordance with the management arrangements proposed by the Australian Fisheries Management Authority is unlikely to be detrimental to the survival of these species.

**Condition 4**

AFMA to limit the take of species listed under the Convention on the International Trade of Endangered Species (CITES), from the area of the Coral Sea Fishery to no more than:

- a) 40 tonnes of any mixture of species belonging to the family Acroporidae per year (1 July – 30 June).
- b) 50 individual humphead Maori wrasse (*Cheilinus undulates*) per year (1 July – 30 June).

**Condition 5**

AFMA to:

- a) review the species composition and spatial extent of all coral harvest when 20 tonnes of coral has been harvested.
- b) ensure that a disproportionate amount of coral species are not taken from a single reef.

**Condition 6**

AFMA to evaluate, document and seek to mitigate any risks posed by the Coral Sea Fishery to CITES-listed species. For coral species this will be undertaken at the reef-level, while for humphead Maori wrasse this will be undertaken at the sub-reef level.

**Condition 7**

AFMA to report the following to the CITES Scientific Authority of Australia, as part of the annual reporting referred to in Condition 3:

- a) the harvested weight and locations of harvest for each coral species
- b) the number of individual humphead Maori wrasse, their sex, lengths and locations of harvest
- c) any assessments, management changes or findings relevant to the management of CITES listed species in the Coral Sea Fishery.

**Ecological Risk Management**

AFMA has a strong suite of precautionary management measures in the Coral Sea Fishery. However it is important that the assessments that underpin these measures continue to reflect the best available science and management practices, appropriate to the scale and risks associated with the fishery.

AFMA anticipates completing the following for all sectors of the Coral Sea Fishery during 2018-2019:

- 1. review and revise the ecological risk assessments
- 2. develop and implement ecological risk management strategies
- 3. review and revise the Bycatch and Discarding Workplan.

**Condition 8**

AFMA to complete the following for all sectors of the Coral Sea Fishery:

- a) review and revise the ecological risk assessments
- b) develop and implement ecological risk management strategies
- c) review and revise the Bycatch and Discarding Workplan.

## REFERENCES

Patterson, H., Noriega, R., Georgeson, L., Larcombe, J., and Curtotti, R., 2017. *Fishery status reports 2017*, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. pp47-59.

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