



**Australian Government**

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**Department of the Environment and Energy**

Assessment of the  
**North West Slope and Western Deepwater Trawl  
Fisheries**

**December 2017**

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This report should be attributed as '*Assessment of the North West Slope and Western Deepwater Trawl Fisheries 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.

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## **EXECUTIVE SUMMARY OF THE ASSESSMENT OF THE NORTH WEST SLOPE AND WESTERN DEEPWATER TRAWL FISHERIES**

In September 2016 the Australian Fisheries Management Authority submitted an application for the assessment of the North West Slope and Western Deepwater Trawl fisheries under the EPBC Act as a Wildlife Trade Operation.

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

The fisheries are small-scale and operate in remote areas of Commonwealth waters using trawl gear to target finfish and crustacea. No stocks are currently classified as overfished or subject to overfishing, and there have been no reported interactions with species listed under Part 13 of the EPBC Act since 2012.

Although the Department's assessment identified a number of risks, the fishery is unlikely to have an unsustainable ecological impact during the period of the proposed approval (three years). Given the lack of information available in the fisheries, and the susceptibility of some species to overfishing, some arrangements do not appear sufficiently precautionary. The Department recommends that some management measures be reviewed and revised, as necessary, to ensure they remain appropriate and effective. The Department has proposed conditions, specified in Section 4 of this assessment, to ensure risks are managed.

The Department recommends that, subject to the conditions specified in Section 4 of this assessment, the North West Slope and Western Deepwater Trawl fisheries be declared as approved Wildlife Trade Operations for three years until 18 December 2020. Product derived from these fisheries 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 NORTH WEST SLOPE AND WESTERN DEEPWATER TRAWL FISHERIES 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	0 of 9	8 of 9	1 of 9	Some management arrangements appear to be no longer in force, out of date, or in some cases, not undertaken. More specific, measurable and time-bound actions, and evidence of greater adherence to the management regime would increase confidence in the fisheries' capacity to manage adverse impacts.
Principle 1 (target stocks)	1 of 11 & 2 N/A	6 of 11	2 of 11	Systems are available to collect fishery information but there is limited information and very little independent data collection. Triggers for management actions are not specific, measurable or time bound, do not appear to be monitored, and triggered management actions have not been undertaken. Fishing activity is currently low and no stocks are considered overfished or subject to overfishing.
Principle 2 (bycatch and TEPS)	4 of 12 & 2 N/A	6 of 12	0 of 12	The harvest strategy contains management triggers for bycatch species but these have not been addressed. Ecological risk assessments are overdue for review. No species listed under Part 13 of the EPBC Act were found to be at high risk when the assessments were last undertaken, and no interactions have been reported in the fisheries since 2012.
Principle 2 (ecosystem impacts)	0 of 5	4 of 5	1 of 5	Although there is little information available on the fishery, the low fishing effort means that ecosystem impacts are likely to be low. Existing management is likely to be sufficient while fishing effort remains low but may be inadequate to determine or address significant changes in the fishery should these occur. Arrangements in other fisheries (e.g. CCAMLR exploratory fisheries) appear to provide more effective protection for vulnerable marine ecosystems and could be used to guide future refinements.
<b>EPBC requirements</b>				
Part 12				The North-west and the South-west Marine Bioregions are relevant to parts of these fisheries. The Marine Bioregional Plans for these areas identify a number of pressures of concern or potential concern to key ecological features. Current arrangements are considered sufficient to manage relevant pressures.
Part 13				No interactions with EPBC Act listed species based on available logbook and observer records (1 January 2012 – 30 September 2017).
Part 13A				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				Although there is currently low fishing effort and risks are therefore likely to be low, the management regime is not sufficiently robust to account for significant changes in the fishery. The lack of information available and the susceptibility of some species to overfishing suggest some management arrangements (e.g. harvest strategy), are not sufficiently precautionary.

**Assessment history:**

1<sup>st</sup> assessment finalised 2004 – 3 conditions, 10 recommendations.

2<sup>nd</sup> assessment finalised 2007 – 5 conditions, 1 recommendation.

3<sup>rd</sup> assessment finalised 2012 – 4 conditions, 2 recommendations.

**Fishery reporting:** No annual reports received.

**Key links:**

Fishery information page on agency website:

- [Western Deepwater Trawl Fishery](#)
- [North West Slope Trawl Fishery](#)

Enforcing legislation:

- [Commonwealth Fisheries Management Act 1991](#)
- [Commonwealth Fisheries Management Regulations 1992](#)
- [Amendment of arrangement between the Commonwealth of Australia and the state of Western Australia in relation to defining the area of the Western Deepwater Trawl Fishery and the North West Shelf \[sic\] Trawl Fishery](#)
- [North West Slope Trawl Fishery and Western Deepwater Trawl Fishery Statement of Management Arrangements September 2012](#)

Harvest strategy:

- [Harvest strategy for the Western Deepwater Trawl Fishery and North West Slope Trawl Fishery 2011](#)
- [Reducing Uncertainty in Stock Status: Harvest Strategy Testing, Evaluation, and Development.](#)

Bycatch and discarding:

- [Bycatch Handling and Treatment Guide 2016/17](#)
- [North West Slope Trawl Fishery bycatch and discarding work plan October 1, 2010 – SEPTEMBER 30, 2012](#)
- [Western Deepwater Trawl Fishery bycatch and discarding work plan November 1, 2010 – October 31, 2012](#)

Ecological Risk Reports - North West Slope Trawl Fishery:

- [Ecological risk assessment for effects of fishing report for the Western Deepwater Trawl Fishery](#)
- [Residual risk assessment of the level 2 ecological risk assessment species results report for the Western Deepwater Trawl Fishery August 2008](#)
- [Rapid quantitative risk assessment for fish species in seven Commonwealth fisheries](#)
- [Ecological risk management report for the Western Deepwater Trawl Fishery August 2008](#)

Ecological Risk Reports – Western Deepwater Trawl Fishery:

- [Ecological risk assessment for effects of fishing report for the North West Slope Trawl Fishery](#)
- [Residual risk assessment of the level 2 ecological risk assessment species results report for the North West Slope Trawl Fishery August 2008](#)
- [Rapid quantitative risk assessment for fish species in seven Commonwealth fisheries](#)
- [Ecological risk management report for the North West Slope Fishery April 2010](#)

Other documents relevant to the management of the fisheries:

- [Implications of current spatial management measures for AFMA ERAs for habitats — FRDC Project No 2014/204.](#)
- [Marine bioregional plan for the North-west Marine Region](#)
- [Marine bioregional plan for the South-west Marine Region](#)
- [North West Slope Fishery General Conditions 2014-19 season](#)
- [Western Deepwater Trawl Fishery General Conditions 2014-19 season](#)
- [Area of the Western Deepwater Trawl Fishery and the North West Shelf \[sic\] Trawl Fishery.](#)

Australian Bureau of Resource Economics and Sciences, Fishery Status Reports:

- North West Slope Trawl Fishery: [2016](#); and [2017](#)
- Western Deepwater Trawl Fishery: [2016](#); and [2017](#)

## SECTION 2: DETAILED ANALYSIS OF NORTH WEST SLOPE TRAWL FISHERY AND WESTERN DEEPWATER TRAWL 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>Partially meets</b> Management documents are publicly available via AFMA's website. However some management arrangements appear to no longer be in force (Bycatch and discard workplan 2010–2012), out of date (e.g. statement of management arrangements), or not completed and published as required (e.g. reviews and reports under the harvest strategy). The submission for the Department's assessment also appears to be outdated and missing important information (e.g. stock assessments referred to by <a href="#">Patterson et al. 2016a</a> ; <a href="#">Patterson et al. 2016b</a> ).
Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public	<b>Partially meets</b> No information is readily available on consultation undertaken by AFMA with interested and affected parties to develop management arrangements.
Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process	<b>Partially meets</b> In 2009 the Management Advisory Committee (WestMAC) was replaced by a consultative panel consisting of permit holders from the two fisheries. Stakeholders, such as the Western Australian Department of Fisheries and Western Australian Fishing Industry Committee, are involved in consultative panel meetings as necessary. There is no Resource Advisory Group for the fisheries and no other broader stakeholder forum.  The consultative panel is convened as necessary to discuss key management issues, but meetings do not occur every year and meeting records are not published.
Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured	<b>Does not meet</b> Objectives and performance criteria are included in management documents such as the harvest strategy and to some extent in the bycatch and discard workplan; however the objectives and performance criteria are not specific, measurable or time bound. They also do not appear to be monitored and triggered management actions have not been undertaken.
Be capable of controlling the level of harvest in the fishery using input and/or output controls	<b>Partially meets</b> The fishery is managed through input controls (limited number of permits) and catch triggers under the harvest strategy. As higher catch triggers are reached, the harvest strategy requires more sophisticated assessments to be undertaken. These assessments are intended to inform management changes which may include a change to output controls. However monitoring and responding to harvest strategy triggers have not been undertaken.

Contain the means of enforcing critical aspects of the management arrangements	<p><b>Partially meets</b></p> <p>AFMA's compliance and enforcement activities across Commonwealth fisheries are prioritised based on risk. No information is available on compliance and enforcement activities undertaken in the North West Slope and Western Deepwater Trawl fisheries.</p> <p>All boats in the two fisheries are required to operate vessel monitoring systems which regularly report the boats location to AFMA.</p> <p>Boats in the two fisheries are not required to unload their catch to an AFMA authorised fish receiver or complete catch disposal records, and there is no electronic monitoring program to validate logbook records or determine compliance with management arrangements.</p>
Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria	<p><b>Partially meets</b></p> <p>Review timeframes are built into management arrangements such as the harvest strategy and bycatch and discard workplans. Reviews are not undertaken regularly.</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><b>Partially meets</b></p> <p>Ecological risk assessments have been completed and the management regime appears capable of assessing, monitoring and managing adverse impacts on the wider marine environment. More specific, measurable and time bound actions, and evidence of greater adherence to the management regime would increase confidence in the two fisheries' capacity to mitigate adverse impacts.</p> <p>The ecological risk assessments for the fisheries are expected to be reviewed and revised by 2020. The results of this process will be used to revise the harvest strategy for the fishery.</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><b>Partially meets</b></p> <p>Management is consistent with relevant plans and strategies. More specific, measurable and time bound actions, and evidence of greater adherence to the management regime would increase confidence in the fisheries' capacity to mitigate adverse impacts.</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.	
<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.	
<b>Information requirements</b>	
<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><b>Does not meet</b></p> <p>Logbooks are required to be completed for all fishing activities. These include estimates of catch. There is no system to validate these logbook records. Catches are not landed to authorised fish receivers, catch disposal records are not used, there is no electronic monitoring program, and onboard observer coverage is infrequent.</p> <p>Catch records differ between AFMA's online records and those provided in the AFMA submission.</p>



<b>Assessment</b>	
<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></p> <p>There is very little information available on the target stocks within the North West Slope and Western Deepwater Trawl fisheries. Not all stocks have been assessed and those that have been assessed delivered questionable results that are now between 8 and 16 years old (<a href="#">Patterson et al. 2016a</a>, <a href="#">Patterson et al. 2016b</a>).</p> <p>A stock assessment for ruby snapper (Hunter et al. 2002 in <a href="#">Patterson et al. 2017b</a>) identified biological characteristics that potentially increase the species' vulnerability to overfishing: specifically, the species is relatively long lived, has a high age at maturity, a slow growth rate and aggregates in restricted continental-shelf habitats.</p> <p>The Australian Bureau of Resource Economics and Sciences review available information on Commonwealth fisheries each year to determine whether they are overfished or subject to overfishing. Scampi in the North West Slope Trawl Fishery are classified not overfished or subject to overfishing (<a href="#">Patterson et al. 2016a</a>; <a href="#">Patterson et al. 2017a</a>), and deepwater bugs and ruby snapper are classified as not subject to overfishing but uncertain whether they are overfished (<a href="#">Patterson et al. 2016b</a>; <a href="#">Patterson et al. 2017b</a>).</p> <p>AFMA has advised that adjustments need to be made to account for changes in fishing impact if estimates of scampi stock status are to be robust in the North West Slope Trawl Fishery.</p> <p>AFMA has also advised that a strategic data plan to identify gaps in knowledge, improve logbook data collection and gather basic biological information on target species is a priority, but that the low gross value of production of the fishery limits the research that can be undertaken.</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></p> <p>There is little information available on the target stocks within the North West Slope and Western Deepwater Trawl fisheries. Some target species are assessed in adjacent state-managed fisheries. Where appropriate, AFMA uses this information to inform management.</p> <p>Catch limits for shared stocks, such as goldband snapper, red emperor and ruby snapper have been developed in consultation with the Western Australian Department of Fisheries. Recent changes to the area of both North West Slope and Western Deepwater Trawl fisheries have been designed to minimise the likelihood of catching species targeted in state waters.</p> <p>AFMA anticipates that information relevant to the distribution and spatial structure of stocks will be considered in the review and revision of the harvest strategy for the fisheries which is expected to be completed by 2020.</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>Does not meet</b></p> <p>Logbooks are required to be completed for all fishing activities. These include estimates of retained and discarded catch. There is no system to validate these records: catches are not landed to authorised fish receivers, catch disposal records are not used, there is no electronic monitoring program and onboard observer coverage is infrequent.</p> <p>Catch records differ between AFMA's online records and those provided in the AFMA submission.</p> <p>Estimates of fishing mortality from other fisheries (recreational, commercial and Indigenous) are not considered in the management of the North West Slope Trawl and Western Deepwater Trawl fisheries.</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></p> <p>The potential productivity of North West Slope Trawl Fishery and Western Deepwater Trawl Fishery stocks is unknown. Catch limits are instead based on historic catches and catch rates.</p>

<b>Management responses</b>	
<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.	<b>Partially meets</b> A harvest strategy applies to both fisheries, with catch and effort-based targets and management triggers for target and some non-target species.  Maximum annual catch, and minimum catch-per-unit-effort limits apply to 'Key Indicator Species', namely orange roughy and goldband snapper in parts of the Western Deepwater Trawl Fishery, and red emperor in part of the North West Slope Trawl Fishery.
<b>1.1.7</b> There are management strategies in place capable of controlling the level of take.	<b>Partially meets</b> The harvest strategy requires analyses to be undertaken when triggers are reached, but lacks timeframes for analyses and response. This may have contributed to triggers not being responded to.  AFMA has advised that fishing activity is now monitored periodically using VMS and logbook data and catches assessed at the end of each year (end of fishing season).  Harvest strategy triggers are currently based on historical catch data and risks identified through the ecological risk assessment process. Some triggers do not appear to be sufficiently precautionary given the lack of information available and the susceptibility of many species to overfishing (e.g. harvest strategy trigger 2b). AFMA anticipates reviewing the appropriateness of its trigger limits and reporting periods when the harvest strategy is revised (by 2020).
<b>1.1.8</b> Fishing is conducted in a manner that does not threaten stocks of byproduct species.	<b>Meets</b> A harvest strategy applies to both fisheries, with catch and effort-based targets, and management triggers for target and some non-target species. These measures are considered sufficient for the current scale of fishing activity.
(Guidelines 1.1.1 to 1.1.7 should be applied to byproduct species to an appropriate level)	
<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.	<b>Partially meets</b> Management is likely to meet its objective while fishing effort remains low. However current management responses are inadequate to determine or address any significant changes in fishing activity.
<b>If overfished, go to Objective 2:</b> <b>If not overfished, go to PRINCIPLE 2:</b>	
<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.	
<b>Management responses</b>	
<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.	<b>Not applicable</b> No stocks have been classified as overfished or are subject to overfishing ( <a href="#">Patterson et al. 2017a</a> ; <a href="#">Patterson et al. 2017b</a> ).
<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.	<b>Not applicable</b> No stocks have been classified as overfished or are subject to overfishing ( <a href="#">Patterson et al. 2017a</a> ; <a href="#">Patterson et al. 2017b</a> ).
<b>PRINCIPLE 2</b> - Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.	

<b>Objective 1</b> - The fishery is conducted in a manner that does not threaten bycatch species.	
<b>Information requirements</b>	
<b>2.1.1</b> Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.	<p><b>Partially meets</b></p> <p>Bycatch information is collected through logbooks for the North West Slope Trawl and Western Deepwater Trawl fisheries. Some information is collected when observer coverage is undertaken, but observer coverage is infrequent and available information is therefore limited. While fishing activity remains at a low level, this is likely to be sufficient.</p>
<b>2.1.2</b> There is a risk analysis of the bycatch with respect to its vulnerability to fishing.	<p><b>Meets</b></p> <p>Ecological risk assessments have been completed which include bycatch species. These identified six species at high risk (one invertebrate in the North West Slope Trawl Fishery and one invertebrate and four teleost species in the Western Deepwater Trawl Fishery).</p> <p>Benthic taxa were the dominant (23.1%) bycatch category by weight of exploratory trawls conducted in the NWSTF in 1998–00 (Newman and Evans 2002 in <a href="#">Wayte et al. 2007</a>). Trawling has capacity to significantly impact benthic communities. <a href="#">Moran and Stephenson (2000)</a> found that trawling in the adjacent West Australian managed Pilbara Demersal Finfish Fishery over the Glomar Shoals reduced large epibenthos (organisms greater than 20 cm) density by 15.5 per cent per trawl pass. This habitat modification has been shown to have significant effects on the ecosystem and associated fisheries (<a href="#">Sainsbury et al. 1997</a>; <a href="#">Wayte et al. 2007</a>). Declines in hexactinellid sponges have been recorded from heavily trawled areas in the North-West Slope Trawl Fishery and concerns have been raised about the impacts of trawling on the bryozoan-rich substrates and associated, commercially important female giant crabs (<i>Pseudocarcinus gigas</i>) (<a href="#">Wayte et al. 2007</a>). Bottom trawling is also likely to result in some loss or modification of the benthic community on the west-coast shelf edge and slope (20 out of 48 habitat types identified as being at risk; <a href="#">Wayte et al. 2007</a>). Sponges, bryozoans and sea squirts are particularly vulnerable to trawling impacts (Currie et al. 2009).</p>

<b>Management responses</b>	
<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><b>Partially meets</b></p> <p>Species identified as being at high risk from fishing in the two fisheries are managed through the harvest strategy and via conditions on fishing licenses. This includes trip-based catch limits for four deepwater dogfish species.</p> <p>In the North West Slope Trawl Fishery, permit conditions also require fishers who catch more than 50 kilograms of coral and/or sponge in any one shot, to immediately cease fishing and not fish within a five nautical mile radius of that shot for five days. This measure does not provide ongoing protection or opportunity for recovery, and evidence suggests that subsequent trawling in these areas will yield less of this bycatch until such time as the area is modified sufficiently to no longer trigger the protection (<a href="#">Sainsbury et al. 1997</a>; <a href="#">Moran &amp; Stephenson 2000</a>; <a href="#">Wayte et al. 2007</a>). Arrangements in other AFMA managed fisheries (e.g. CCAMLR exploratory fisheries) appear to provide more effective protection for vulnerable marine ecosystems.</p> <p>AFMA has published a <a href="#">Bycatch Handling and Treatment Guide 2016/17</a>, but it is unclear whether conditions on fishing licenses have been updated to enable action to be taken against fishers that do not operate in accordance with these requirements.</p> <p>Trawling is prohibited in Commonwealth Marine Reserves which occupy 12.1 per cent of the North West Slope Trawl Fishery area, and 21.5 per cent of the Western Deepwater Trawl Fishery area.</p> <p>AFMA has completed ecological risk assessments for the North West Slope Trawl and Western Deepwater Trawl fisheries and <a href="#">Pitcher et al (2016)</a> found the North West Slope Trawl and Western Deepwater Trawl fisheries present a low potential for habitat risk, relative to other Commonwealth fisheries.</p> <p>Given the relatively low levels of fishing effort currently occurring in the North West Slope Trawl Fishery and the Western Deepwater Trawl Fishery, the impacts of fishing operations on the ecosystem are likely to be low.</p>
<b>2.1.4</b> An indicator group of bycatch species is monitored.	<p><b>Partially meets</b></p> <p>The harvest strategy contains trigger limits for all bycatch species. Action has not been taken when these triggers have been reached.</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><b>Partially meets</b></p> <p>The harvest strategy contains decision rules that trigger additional management actions. Action has not been taken when these triggers have been reached.</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><b>Partially meets</b></p> <p>Management is likely to meet its objective while fishing effort remains low but there does not appear to be sufficient monitoring or management of the fishery to adequately respond to significant changes in the fishery.</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.	<p><b>Meets</b></p> <p>Any interactions with protected species must be reported to AFMA by fishers in their daily fishing logbooks. Records of any interactions are published quarterly by AFMA on their <a href="#">website</a>.</p> <p>There have been no protected species interactions reported in logbooks or by observers in the North West Slope Trawl or Western Deepwater Trawl fisheries in the period 1 January 2012 to 30 September 2017.</p>

<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>Partially meets</b> Ecological risk assessments have been completed which include endangered, threatened or protected species. No species were found to be at high risk given the current level of fishing activity. These assessments were to be reviewed every three years, but have not been reviewed for around 10 years. The ecological risk assessments for the fisheries are expected to be reviewed and revised by 2020.
<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 have been identified within the area of the North West Slope Trawl and Western Deepwater Trawl fisheries.
<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> There are 121 endangered, threatened or protected species in the North West Slope Trawl Fishery and 125 in the Western Deepwater Trawl Fishery. None of these species were assessed as being at high risk in AFMA's ecological risk assessments. AFMA has committed to take all reasonable steps to minimise interactions with these species. These fisheries are required to operate consistent with relevant threat abatement and recovery plans, and any interactions with protected species must be reported to AFMA by fishers in their daily fishing logbooks. These records are published quarterly by AFMA on their website. There have been no protected species interactions reported in logbooks or by observers in the North West Slope Trawl or Western Deepwater Trawl fisheries in the period 1 January 2012 to 30 September 2017.
<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 have been identified within the area of the North West Slope Trawl and Western Deepwater Trawl fisheries.
<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> The current management arrangements have a high chance of achieving their objective.
<b>Objective 3 - The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally.</b>	
<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 fisheries' impact on the ecosystem and environment is not collected. AFMA anticipate reviewing the ecological risk assessment for the North West Slope Trawl and Western Deepwater Trawl fisheries by 2020.

<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>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>Impacts on food chains <ul style="list-style-type: none"> <li>Structure</li> <li>Productivity/flows</li> </ul> </li> <li>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>Bycatch information is collected through logbooks for the North West Slope Trawl and Western Deepwater Trawl fisheries and some additional information is collected when observer coverage is undertaken; however this observer coverage is infrequent.</p> <p>The North West Slope Trawl and Western Deepwater Trawl fisheries cover vast areas (180 977 km<sup>2</sup> and 154 655 km<sup>2</sup> respectively), but have fished very little of this area in recent years (0.5 and 0.2 per cent respectively).</p> <p>It is unclear to what extent data collected by the fishery informs ecological risk management. However AFMA's ecological risk assessments for the fisheries and the benthic habitat risk assessment undertaken by <a href="#">Pitcher et al. (2016)</a> found the fisheries present a low potential for habitat risk, relative to other Commonwealth fisheries.</p> <p>Given the relatively low levels of fishing effort currently occurring in the fisheries, the impacts on the ecosystem are likely to be low.</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>Ecological risk mitigation measures are implemented via conditions on fishing permits.</p> <p>These conditions include limits on the retention of four deepwater dogfish species and a requirement for fishers to 'move on' from areas when they encounter high bycatch of corals and sponges. This 'move on' provision is applied to all boats in the fishery from the time AFMA receives notice of the bycatch, but only provides a short five day reprieve and does not allow the area to recover or provide any ongoing protection from fishing. Arrangements in other AFMA managed fisheries (e.g. CCAMLR exploratory fisheries) provide more effective protection for vulnerable marine ecosystems.</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>Ecological impacts are not monitored, but conditions on fishing permits include limits on the retention of four deepwater dogfish species and a requirement for fishers to 'move on' from areas when they encounter high bycatch of corals and sponges. This 'move on' provision is applied to all boats in the fishery from the time AFMA receives notice of the bycatch, but only provides a short five day reprieve and does not allow the area to recover or provide any ongoing protection from fishing. Arrangements in other AFMA managed fisheries (e.g. CCAMLR exploratory fisheries) provide more effective protection for vulnerable marine ecosystems.</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>Partially meets</b></p> <p>Although there is currently low fishing effort and risks are therefore likely to be low, the management regime is not sufficiently robust to account for significant changes in the fishery. The lack of information available and the susceptibility of some species to overfishing suggest some management arrangements (e.g. harvest strategy), are not sufficiently precautionary.</p>

### SECTION 3: ASSESSMENT OF THE NORTH WEST SLOPE TRAWL FISHERY AND WESTERN DEEPWATER TRAWL 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	<p>The North West Slope Trawl Fishery includes areas of the North-west Marine Bioregion, and the Western Deepwater Trawl Fishery includes areas of the North-west and South-west Marine Bioregions.</p> <p>The Marine Bioregional Plans for these areas identified a number of pressures of concern or potential concern to key ecological features.</p> <p>Some protection is afforded by Commonwealth Marine Reserves, which prohibit trawling in 12.1 per cent and 21.5 per cent of the of the North West Slope and Western Deepwater Trawl fishery areas respectively. AFMA has implemented risk mitigation measures including retention limits for deepwater dogfish and requirements for fishers to 'move on' from areas when they encounter high bycatch of corals or sponges.</p> <p>Seven licences have been issued to fish in the North West Slope Trawl Fishery, and 11 in the Western Deepwater Trawl Fishery. Of these, no more than two have been active in either fishery in recent years.</p> <p>Relative to other Commonwealth fisheries, the North West Slope Trawl and Western Deepwater Trawl fisheries present a low potential for habitat risk (Pitcher et al. 2016).</p> <p>The impact of fishing operations on key ecological features is likely to be minimal.</p>

#### 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?	<p><b>Yes</b></p> <p>There is an accreditable management regime. This is described in the 'North West Slope Trawl Fishery and Western Deepwater Trawl Fishery Statement of Management Arrangements September 2012'.</p>
<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?	<p><b>Yes</b></p> <p>The Australian Fisheries Management Authority has undertaken ecological risk assessments and implemented risk management strategies to ensure all reasonable steps are taken to avoid killing or injuring listed threatened species. No protected species interactions were reported in logbooks or by observers in the North West Slope Trawl or Western Deepwater Trawl fisheries in the period 1 January 2012 to 30 September 2017.</p>
(g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species.	<p><b>No</b></p> <p>There have been no interactions with listed threatened species reported in logbooks or by observers in the North West Slope Trawl or Western Deepwater Trawl fisheries in the period 1 January 2012 to 30 September 2017. Ecological risk assessments found no listed threatened species were at high risk given the current low level of fishing activity.</p>



<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?	<p><b>Yes</b></p> <p>The Australian Fisheries Management Authority has undertaken ecological risk assessments and implemented risk management strategies to ensure all reasonable steps are taken to avoid killing or injuring listed migratory species. No listed migratory species interactions were reported in logbooks or by observers in the North West Slope Trawl or Western Deepwater Trawl fisheries in the period 1 January 2012 to 30 September 2017.</p>
(g) And, is the fishery likely to adversely affect the conservation status of a listed migratory species or a population of that species?	<p><b>No</b></p> <p>There have been no interactions with listed migratory species reported in logbooks or by observers in the North West Slope Trawl or Western Deepwater Trawl fisheries in the period 1 January 2012 to 30 September 2017. Ecological risk assessments found no listed threatened species were at high risk given the current level of fishing activity.</p>
<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?	<p><b>Yes</b></p> <p>The Australian Fisheries Management Authority has undertaken ecological risk assessments and implemented risk management strategies to ensure all reasonable steps are taken to avoid killing or injuring whale and other cetacean species. No whale or other cetacean species interactions were reported in logbooks or by observers in the North West Slope Trawl or Western Deepwater Trawl fisheries in the period 1 January 2012 to 30 September 2017.</p>
(g) And is the fishery likely to adversely affect the conservation status of a species of cetacean or a population of that species?	<p><b>No</b></p> <p>There have been no interactions with whales or other cetacean species reported in logbooks or by observers in the North West Slope Trawl or Western Deepwater Trawl fisheries in the period 1 January 2012 to 30 September 2017. Ecological risk assessments found no whale or other cetacean species were at high risk given the current level of fishing activity.</p>
<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?	<p><b>Yes</b></p> <p>The Australian Fisheries Management Authority has undertaken ecological risk assessments and implemented risk management strategies to ensure all reasonable steps are taken to avoid killing or injuring listed marine species. No listed marine species interactions were reported in logbooks or by observers in the North West Slope Trawl or Western Deepwater Trawl fisheries in the period 1 January 2012 to 30 September 2017.</p>
(g) And is the fishery likely to adversely affect the conservation status of a listed marine species or a population of that species?	<p><b>No</b></p> <p>There have been no interactions with listed marine species reported in logbooks or by observers in the North West Slope Trawl or Western Deepwater Trawl fisheries in the period 1 January 2012 to 30 September 2017. Ecological risk assessments found no listed marine species were at high risk given the current level of fishing activity.</p>
<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.	Recommend accreditation under sections 208A, 222A, 245 and 265.



<p>(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only:</p> <ul style="list-style-type: none"> <li>(a) during a particular period; or</li> <li>(b) while certain circumstances exist; or</li> <li>(c) while a certain condition is complied with.</li> </ul> <p>In such a case, the instrument of accreditation is to specify the period, circumstances or condition.</p>	<b>No conditions required</b>
<p>(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.</p>	<b>Not applicable</b>

## Part 13A

Section 303BA Objects of Part 13A	
<p>(1) The objects of this Part are as follows:</p> <ul style="list-style-type: none"> <li>(a) to ensure that Australia complies with its obligations under CITES and the Biodiversity Convention;</li> <li>(b) to protect wildlife that may be adversely affected by trade;</li> <li>(c) to promote the conservation of biodiversity in Australia and other countries;</li> <li>(d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way;</li> <li>(e) to promote the humane treatment of wildlife;</li> <li>(f) to ensure ethical conduct during any research associated with the utilisation of wildlife; and</li> <li>(h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.</li> </ul>	
Section 303 CG Minister may issue permits (CITES species)	Comment
<p>(3) The Minister must not issue a permit unless the Minister is satisfied that:</p> <p>s(a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to:</p> <ul style="list-style-type: none"> <li>i. the survival of any taxon to which the specimen belongs; or</li> </ul>	<p><b>Not applicable</b> The fisheries do not harvest or interact with any CITES-listed species.</p>
<ul style="list-style-type: none"> <li>ii. the recovery in nature of any taxon to which the specimen belongs; or</li> </ul>	<p><b>Not applicable</b> The fisheries do not harvest or interact with any CITES-listed species.</p>
<ul style="list-style-type: none"> <li>iii. any relevant ecosystem (for example, detriment to habitat or biodiversity).</li> </ul>	<p><b>Not applicable</b> The fisheries do not harvest or interact with any CITES-listed species.</p>
Section 303DC Minister may amend list (non CITES species)	

<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 North West Slope Trawl and Western Deepwater Trawl fisheries, 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 North West Slope Trawl and Western Deepwater Trawl fisheries were assessed under Part 10 of the EPBC Act in November 2004. As a result of the assessment, the Department considered that actions taken in the fishery would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area. The management regime described in the 'Western Trawl Fisheries Statement of Management Arrangements 2004' was subsequently accredited under section 33 of the EPBC Act in November 2005. Since that time, additional management measures have been implemented and are now reflected in the 'North West Slope Trawl Fishery and Western Deepwater Trawl Fishery Statement of Management Arrangements September 2012'.</p> <p>The Department recommends that the LENS is amended under section 303DC(1)(a) to include product derived from the North West Slope Trawl and Western Deepwater Trawl fisheries 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 fisheries are consistent with the Objects of Part 13A – see above assessment.</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> A public notice, which set out the proposal to declare the North West Slope Trawl and Western Deepwater Trawl fisheries as an approved Wildlife Trade Operation and included the application from the Australian Fisheries Management Authority, was available for public comment from 23 February to 30 March 2017 (24 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> The fisheries are consistent with the Objects of Part 13A – see assessment above.</p>

<p>(b) the operation will not be detrimental to:</p> <ul style="list-style-type: none"> <li>i. the survival of a taxon to which the operation relates; or</li> <li>ii. the conservation status of a taxon to which the operation relates; and</li> </ul> <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 life of the WTO, given the management measures in place, which include limited entry, gear restrictions, harvest strategies with monitoring and management triggers, and specific protections for certain bycatch species such as deepwater sharks, corals and sponges.</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 (EPBC Regulations) 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 EPBC Regulations.</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 North West Slope Trawl and Western Deepwater Trawl fisheries will not have a significant impact on any relevant ecosystem within the next <b>three years</b>, given the management measures in place; these arrangements include those 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 North West Slope Trawl and Western Deepwater Trawl fisheries 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 <i>Fisheries Management Act 1991</i> and Fisheries Management Regulations 1992, and the management regime described in the 'North West Slope Trawl Fishery and Western Deepwater Trawl Fishery Statement of Management Arrangements September 2012'.</p> <p>The <i>Fisheries Management Act 1991</i> and Fisheries Management Regulations 1992 apply throughout 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 North West Slope Trawl and Western Deepwater Trawl fisheries are both commercial fisheries.</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 North West Slope Trawl and Western Deepwater Trawl fisheries were assessed under Part 10 of the EPBC Act in November 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. The management regime in force under the <i>Fisheries Management Act 1991</i> and Fisheries Management Regulations 1992, and as described in the 'Western Trawl Fisheries Statement of Management Arrangements 2004' was subsequently accredited under section 33 of the EPBC Act in November 2005. These management arrangements are now reflected in the 'North West Slope Trawl Fishery and Western Deepwater Trawl Fishery Statement of Management Arrangements September 2012'.</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.	
<b>Section 303FR Public consultation</b>	
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <p>(a) setting out the proposal to make the declaration; and</p> <p>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</p> <p>(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.</p> <p>(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 North West Slope Trawl and Western Deepwater Trawl fisheries as an approved Wildlife Trade Operation and included the application from the Australian Fisheries Management Authority, was released for public comment from 23 February to 30 March 2017 (24 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>
<b>Section 303FT Additional provisions relating to declarations</b>	
<p>(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.</p>	<p>A declaration for the North West Slope Trawl and Western Deepwater Trawl fisheries 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 <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i>.</li> </ul> <p>The wildlife trade operation instrument for the North West Slope Trawl and Western Deepwater Trawl fisheries includes these standard conditions and others specified 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 North West Slope Trawl and Western Deepwater Trawl fisheries 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

Section 391 Minister must consider precautionary principle in making decisions	Comment
<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>Partially meets</b></p> <p>Although there is currently low fishing effort and risks are therefore likely to be low, the management regime is not sufficiently robust to account for significant changes in the fishery. The lack of information available and the susceptibility of some species to overfishing suggest some management arrangements (e.g. harvest strategy), are not sufficiently precautionary.</p>

**SECTION 4: NORTH WEST SLOPE AND WESTERN DEEPWATER TRAWL FISHERIES – SUMMARY OF ISSUES REQUIRING CONDITIONS, DECEMBER 2017**

Issue	Condition
<p><u>General Management</u></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></p> <p>Operation of the Western Deepwater Trawl and North West Slope Trawl fisheries 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></p> <p>The Australian Fisheries Management Authority to inform the Department of the Environment and Energy of any intended material changes to the Western Deepwater Trawl and North West Slope Trawl fisheries management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.</p>
<p><u>Annual Reporting</u></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. 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 <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></p> <p>The Australian Fisheries Management Authority 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 - 2nd Edition</i>.</p>

Issue	Condition
<p><u>Managing ecological risk</u></p> <p>Ecological risk assessments have been undertaken for the fisheries and the results have been used to inform the Harvest Strategy for the North West Slope and Western Deepwater Trawl fisheries. These risk assessments are approximately 10 years old and would benefit from review, to consider any new information, advances in assessment methodologies, and ensure risk mitigation measures remain appropriate for the fishery.</p> <p>AFMA expects to review and revise the ecological risk assessments for the fisheries by 2020, and the results of this process will be used to revise the harvest strategy for the fishery.</p>	<p><b>Condition 4:</b></p> <p>AFMA to ensure ecological risk assessments and associated management strategies are reviewed, updated and implemented.</p>
<p><u>Harvest and other management strategies</u></p> <p>Effective harvest controls are necessary to manage the ecological effects of fishing.</p> <p>Harvest and other management strategies usually contain triggers and limits, which provide a clear framework for monitoring and responding to changes in the fisheries.</p> <p>The harvest strategy in place for the North West Slope and Western Deepwater Trawl fisheries includes objectives and performance criteria, but these are not specific, measurable or time bound. They also do not appear to be monitored, and triggered management responses have not been undertaken.</p> <p>This can result in significant delays in detecting and responding to issues and managing risk.</p> <p>Given the lack of information available in these fisheries, and the susceptibility of some species to overfishing, some arrangements also do not appear sufficiently precautionary.</p>	<p><b>Condition 5:</b></p> <p>AFMA to ensure:</p> <ul style="list-style-type: none"> <li>a) that the harvest strategy for the North West Slope and Western Deepwater Trawl fisheries contains triggers and/or limits which are specific, measurable, time bound, and capable of managing the ecological effects of fishing.</li> <li>b) that the fisheries' performance under harvest strategy triggers and limits is monitored; and triggered management actions are undertaken within specified timeframes.</li> </ul> <p>Harvest strategy performance should be reported as part of the requirements specified in Condition 3 above.</p>

## REFERENCES

- Currie, DR, Sorokin, SJ & Ward, TM 2009, 'Infaunal macroinvertebrate assemblages of the eastern Great Australian Bight: effectiveness of a marine protected area in representing the region's benthic biodiversity', *Marine and Freshwater Research*, vol. 60, pp. 459–74. <http://www.publish.csiro.au/mf/pdf/MF08239>. Accessed 4 December 2017.
- Hunter, C, Dichmont, C & Venables, B 2002, Ruby snapper stock assessment (Western Deepwater Trawl Fishery), CSIRO, Brisbane.
- Moran, M.J., and Stephenson, P.C., 2000. Effects of otter trawling on macrobenthos and management of demersal scalefish fisheries on the continental shelf of northwestern Australia. – *ICES Journal of Marine Science*, 57: 510–516. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.538.5347&rep=rep1&type=pdf>. Accessed 12 December 2017.
- Patterson, H., Noriega, R., Georgeson, L., Stobutzki, I. and Curtotti, R., 2016a. Fishery status reports 2016, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, pp86-92. [http://data.daff.gov.au/data/warehouse/9aam/fsrXXd9abm\\_/fsr16d9abm\\_20160930/06\\_FishStatus2016NthWstSlopeTrawl\\_1.0.0.pdf](http://data.daff.gov.au/data/warehouse/9aam/fsrXXd9abm_/fsr16d9abm_20160930/06_FishStatus2016NthWstSlopeTrawl_1.0.0.pdf). Accessed 19 September 2017.
- Patterson, H., Noriega, R., Georgeson, L., Stobutzki, I. and Curtotti, R., 2016b. Fishery status reports 2016, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, pp293-300. [http://data.daff.gov.au/data/warehouse/9aam/fsrXXd9abm\\_/fsr16d9abm\\_20160930/14\\_FishStatus2016WstnDeepwaterTrawl\\_1.1.0.pdf](http://data.daff.gov.au/data/warehouse/9aam/fsrXXd9abm_/fsr16d9abm_20160930/14_FishStatus2016WstnDeepwaterTrawl_1.1.0.pdf). Accessed 19 September 2017.
- Patterson, H., Noriega, R., Georgeson, L., Larcombe, J. and Curtotti, R., 2017a. Fishery status reports 2017, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, pp85-91. [http://data.daff.gov.au/data/warehouse/9aam/fsrXXd9abm\\_/fsr17d9abm\\_20170929/06\\_FishStatus2017NthWstSlopeTrawl\\_1.0.0.pdf](http://data.daff.gov.au/data/warehouse/9aam/fsrXXd9abm_/fsr17d9abm_20170929/06_FishStatus2017NthWstSlopeTrawl_1.0.0.pdf). Accessed 30 October 2017.
- Patterson, H., Noriega, R., Georgeson, L., Larcombe, J. and Curtotti, R., 2017b. Fishery status reports 2017, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, pp294-301. [http://data.daff.gov.au/data/warehouse/9aam/fsrXXd9abm\\_/fsr17d9abm\\_20170929/14\\_FishStatus2017WstnDeepwaterTrawl\\_1.0.0.pdf](http://data.daff.gov.au/data/warehouse/9aam/fsrXXd9abm_/fsr17d9abm_20170929/14_FishStatus2017WstnDeepwaterTrawl_1.0.0.pdf). Accessed 30 October 2017.
- Pitcher, C.R., Ellis, N., Althaus, F., Williams, A., McLeod, I., Bustamante, R., Kenyon, R., Fuller, M. (2016) Implications of current spatial management measures for AFMA ERAs for habitats — FRDC Project No 2014/204. CSIRO Oceans & Atmosphere, Published Brisbane, November 2015, 50 pages. [http://www.frdc.com.au/research/Final\\_Reports/2014-204%20DLD.pdf](http://www.frdc.com.au/research/Final_Reports/2014-204%20DLD.pdf) Accessed 05/04/2017
- Sainsbury, K. J., Campbell, R. A., Lindholm, R., and Whitelaw, A. W. 1997. Experimental management of an Australian multispecies fishery: examining the possibility of trawl induced habitat modification. *In* *Global Trends, Fisheries Management*, pp. 107–112. Ed. by E. K. Pikitch, D. D. Huppert, and M. P. Sissenwine. American Fisheries Society Seattle, WA, USA. 352 pp. [https://www.researchgate.net/publication/285818768\\_Experimental\\_management\\_of\\_an\\_Australian\\_multispecies\\_fishery\\_Examining\\_the\\_possibility\\_of\\_trawl-induced\\_habitat\\_modification](https://www.researchgate.net/publication/285818768_Experimental_management_of_an_Australian_multispecies_fishery_Examining_the_possibility_of_trawl-induced_habitat_modification) Accessed 19 October 2017
- Wayte, S, Dowdney, J, Williams, A, Bulman, C, Sporcic, M, Fuller, M & Hobday, A 2007, Ecological risk assessment for the effects of fishing: report for the North West Slope Trawl Fishery, report to the Australian Fisheries Management Authority, Canberra. <http://www.afma.gov.au/wp-content/uploads/2014/11/ERA-North-West-Slope-Trawl-2007.pdf>. Accessed 19 October 2017.