



**Australian Government**

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**Department of Agriculture,  
Water and the Environment**

# **Assessment of the Queensland Commercial Trawl (Fin Fish) Fishery**

*(formerly Queensland Fin Fish (Stout Whiting) Trawl Fishery)*

**August 2020**

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This report should be attributed as '*Assessment of the Queensland Commercial Trawl (Fin Fish) Fishery August 2020*, Commonwealth of Australia 2020'.

### **Disclaimer**

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

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## ASSESSMENT SUMMARY

On 19 December 2019, the Queensland Department of Agriculture and Fisheries (QDAF) submitted an application for assessment of the Queensland Commercial Trawl (Fin Fish) Fishery (CTFFF) under protected species and wildlife trade provisions of the EPBC Act.

The Department of Agriculture, Water and the Environment (the Department) sought public comments on the application and considered the comments received when assessing the fishery against the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'.

### *Description of fishery*

The CTFFF is a Demersal Otter Trawl and Danish Seine fishery with a total of five licences. The fishery targets Stout Whiting (*Sillago robusta*) and Red Spot Whiting (*S. flindersi*), and also takes a range of by-product species in waters between 20 and 50 fathoms deep. The fishery includes both state and Commonwealth waters off the Southern Queensland coast, from Sandy Cape south to the Queensland-New South Wales border. The fishery area is overlapped by the Queensland East Coast Otter Trawl Fishery (ECOT) which fishes the same grounds for prawns and scallops.

In 2017 QDAF commenced a trial which extends fishing by CTFFF licence holders into waters shallower than 20 fathoms. Fishing in those trial areas is undertaken from April to September each year and is intended to allow CTFFF fishers to more efficiently catch their quotas and reduce competition with other fisheries operating in the same area as the CTFFF.

The trial area was historically closed to fishing by CTFFF fishers as part of the ecological risk mitigation regime for the CTFFF, to minimise impacts on juvenile Stout Whiting and to reduce competition with other trawl fisheries operating in the more inshore areas. QDAF has advised that there is now less trawl activity in those shallower trial areas by other fisheries.

QDAF has not applied for approval of the trial arrangements under the EPBC Act, and existing and proposed approvals for the CTFFF do not extend to these trial arrangements. The export of product from the trial area is not permitted. The trial arrangements have not previously been assessed by the Department, however, where the trial has potential to affect the sustainability of the CTFFF the trial arrangements have been considered in this report.

Following discussions with the Department, QDAF has halted the trial and has advised that it will seek assessment of the trial arrangements before those activities recommence. The trial arrangements were due to conclude in September 2021, at which time QDAF was to consider possible management changes to the CTFFF to include the area of the trial. If the CTFFF management arrangements are to change, the Department recommends QDAF revise its ecological risk assessment and ensure that the assessment considers all management arrangements, including the impacts of fishing in waters shallower than 20 fathoms.

### *Stock assessments*

QDAF has a program of regular stock assessments for the CTFFF, but some recent stock assessments have not been undertaken and assessment processes appear to have become less robust (QDAF pers comm. 2020). While QDAF has advised that assessments may be reprioritised and rescheduled, information on the assessment schedule and any precautionary interim measures is unpublished.

There is information available on stock structure but the Department is concerned that important data on discarded catch is not being accurately reported and therefore not included in stock assessments. This is particularly significant as fishing is now undertaken in nursery

areas for Stout Whiting under the trial arrangements. All impacts on the stocks, including retained and discarded catch must be considered in determining sustainable management controls. This includes impacts from CTFFF and fishing undertaken by other fisheries and fishing sectors. The Department recommends conditions 1 and 2 be applied to the Part 13 approval, and conditions 4 and 5 be attached to the Part 13A approval, to ensure that the data collected on the fishery is reliable and sufficient to assess, monitor and manage its sustainability. The Department also recommends that condition 6 be attached to the Part 13A approval to ensure that robust stock assessments are completed on schedule and consider all relevant impacts on the stocks.

#### *Protected species data*

The Department also has concerns that not all protected species interactions are being reported. There is no program to collect independent data or validate information reported by fishers (other than spatial information provided by Vessel Monitoring Systems). The Department recommends conditions 1 and 2 be applied to the Part 13 approval, and conditions 4 and 5 be attached to the Part 13A approval, to ensure that the data collected on protected species interactions in the fishery is accurate, reliable and sufficient to assess, monitor and manage the impacts of fishing on these species. The proposed independent data collection and validation program is consistent with actions proposed under the Queensland Government's Sustainable Fisheries Strategy 2017-2027.

#### *Harvest controls*

Harvest controls in the fishery include catch limits, gear restrictions and limits on where and when fishing can occur. Although there is no framework for monitoring and managing the performance of these controls in the fishery, the harvest controls appear effective and are expected to be strengthened when QDAF incorporate them into a harvest strategy in 2021. Introducing an independent data collection and validation program for the CTFFF would also strengthen these arrangements and the Department recommends conditions 1 and 2 be applied to the Part 13 approval, and conditions 4 and 5 be attached to the Part 13A approval to ensure an independent data collection and validation program is implemented by 31 December 2021.

#### *Ecological Risk Assessments (ERAs)*

QDAF published an ecological risk assessment (ERA) for the CTFFF in February 2020 but the ERA did not consider the impacts of fishing by CTFFF fishers under trial arrangements, in waters previously closed as part of the CTFFF's ecological risk mitigation strategy. While the Department has considered elements of the trial where it effects the sustainability of the CTFFF, if CTFFF management arrangements are to change to include the trial area, it is important that QDAF revise the ecological risk assessment to ensure that the assessment considers all management arrangements and impacts.

Ecological risks in the CTFFF are currently mitigated primarily by the relatively small number of vessels operating in the fishery. However, there is no specific data collection occurring to monitor ecological impacts, and no performance management system to ensure the effectiveness of ecological risk mitigation. Improving data collection and validation and introducing a harvest strategy are expected to address this issue. The Department has proposed conditions 1 and 2 on the Part 13 approval, and conditions 4-6 on the Part 13A approval in support of this outcome.

### *Conditions*

The conditions outlined in Section 2 of this report collectively aim to address the issues identified in the Department's assessment of the fishery during the term of the proposed three-year approval. Because the Part 13 and Part 13A approvals can be granted and maintained independently, certain conditions have been proposed for both approvals. On the basis that the proposed conditions will address the identified issues, the Department recommends that the CTFFF be declared an approved wildlife trade operation under Part 13A of the EPBC Act for three years and that the management regime be accredited under Part 13 of the EPBC Act.

## SECTION 1: ASSESSMENT SUMMARY

Guidelines	Meets	Partly meets	Does not meet	Comments
Management regime	5 of 9	2 of 9	2 of 9	Management arrangements are documented, publicly available and transparent and consult a wide range of stakeholders. There are regular stock assessments and effective harvest controls in place, but research, risk mitigation and enforcement could be improved. There are also no frameworks for monitoring and managing the fishery's performance. The Department has proposed conditions 1 and 2 on the Part 13 approval, and conditions 4-6 on the Part 13A approval to address the identified issues. All proposed conditions are detailed in Section 2 of this report.
Principle 1 Target stocks  * Two of the 11 assessment criteria are not applicable.	2 of 9*	5 of 9*	2 of 9*	There are regular stock assessments, but some recent assessments have not been undertaken and rationale for the delays and precautionary interim measures have not been undertaken or published. Harvest controls are effective but do not include reference points that trigger management actions. Data collection, including independent data collection and validation also requires improvement. There is information on stock structure but also concerns over the accuracy of data collected on discarded target species (and more broadly). This is particularly significant given CTFFF operators have been fishing in nursery grounds under trial arrangements. It is unclear to what extent data issues affect the management of target stocks. The Department has proposed conditions 1 and 2 on the Part 13 approval, and conditions 4-6 on the Part 13A approval to address the identified issues.
Principle 2 Bycatch, protected species and ecological communities	3 of 12	6 of 12	3 of 12	An ERA has been completed and risks to bycatch and protected species were identified as low. However, the ERA did not consider the impacts of the four-year fishing trial that has been occurring in inshore Stout Whiting nursery areas. While these inshore areas are not part of the CTFFF assessment, they were previously closed to help mitigate ecological risks associated with the CTFFF. It is important that the impacts of the trial are assessed if fishing in those areas is to continue. It is also unclear whether all reasonable steps are being taken to minimise bycatch in the fishery. Logbooks are used for data collection but there are concerns regarding the accuracy and adequacy of reporting for non-retained catch and protected species. There is also no monitoring of any indicator species groups and no performance measures in place for the fishery. These issues are expected to be addressed under the Queensland Government's Sustainable Fisheries Strategy 2017-2027. Further work is required to determine the effectiveness of current bycatch reduction technologies and to ensure there is enough information available to manage the impacts of the fishery. The Department

				has proposed conditions 1 and 2 on the Part 13 approval, and conditions 4-6 on the Part 13A approval to ensure data collection, ecological risk assessment and risk management are effective.
Principle 2 Ecosystem impacts	1 of 5	2 of 5	2 of 5	An ERA was completed for ecological impacts but did not consider the impacts associated with the four-year fishing trial in areas that were previously closed to help mitigate the ecological risks associated with the CTFFF. A range of input and output controls are used to manage ecological impacts and risks are also moderated by the relatively small number of vessels operating in the fishery. There is however no specific data collection occurring to monitor ecological impacts, and no associated performance measures. The Department has proposed conditions 1 and 2 on the Part 13 approval, and conditions 4-6 on the Part 13A approval to ensure data collection, ecological risk assessment and risk management are effective.
<b>EPBC requirements</b>				
Part 12 – Bioregional plans				Meets requirements subject to the proposed Part 13 conditions 1 and 2 and Part 13A conditions 4-6.
Part 13 – Protected species and communities				Meets requirements subject to the proposed Part 13 conditions 1 and 2.
Part 13A – International trade of wildlife				Meets requirements subject to the proposed Part 13A conditions 4-6.
Part 16 – Precautionary principle				Meets requirements subject to the proposed Part 13 conditions 1 and 2 and Part 13A conditions 1-6.



## SECTION 2: SUMMARY OF ISSUES AND PROPOSED CONDITIONS

Part 13A – Issue	Proposed Part 13A Conditions
<p><b><u>General Management</u></b></p> <p>Export decisions relate to the management arrangements in force at the time of any decision(s) made under the EPBC Act. To ensure that the decision(s) remain valid and export approval continues uninterrupted, the Department needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision(s). This includes operational and legislated amendments that may affect the sustainability of the target species or negatively impact on by-product, bycatch, EPBC Act protected species or the ecosystem.</p>	<p><b>Condition 1</b></p> <p>The Queensland Department of Agriculture and Fisheries must ensure the operation of the Queensland Commercial Trawl (Fin Fish) Fishery is carried out in accordance with the management arrangements specified in the Queensland <i>Fisheries Act 1994</i>, Fisheries (General) Regulation 2019, Fisheries (Commercial Fisheries) Regulation 2019, Fisheries Declaration 2019, and the Fisheries Quota Declaration 2019.</p> <p><b>Condition 2</b></p> <p>Queensland Department of Agriculture and Fisheries must inform the Department of Agriculture, Water and the Environment of any intended material changes to the Queensland Commercial Trawl (Fin Fish) Fishery management arrangements, so the Department of Agriculture, Water and the Environment can determine if these changes 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 QDAF produce and present reports to the Department annually in order for the performance of the fishery and progress in implementing the conditions described in this report and other managerial commitments to be monitored and assessed throughout the life of the export approval. Annual reports should follow Appendix B to the 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2<sup>nd</sup> 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 described in the previous assessment for</p>	<p><b>Condition 3</b></p> <p>The Queensland Department of Agriculture and Fisheries must provide annual reports on the Commercial Trawl (Fin Fish) Fishery to the Department of Agriculture, Water and the Environment every 12 months, from the date of the approval of the wildlife trade operation. These reports must be consistent with Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2<sup>nd</sup> Edition (2007)</i>.</p>

<p>the fishery. 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><u>Reliable fisheries data collection, validation and monitoring</u></b></p> <p>Accurate identification and reporting of retained and discarded catch are crucial to ensure the impacts of fishing can be assessed, monitored and managed sustainably. The Department has concerns, that are discussed at item 1.1.4 and elsewhere in this report, that fishers may not be accurately reporting the extent of their discarded catch and interactions with protected species.</p> <p>The Department notes that there has been difficulty accurately identifying the main target species (Stout Whiting) in the past (Ovenden &amp; Butcher, 1999) and it is unclear how this affects stock assessments and setting of sustainable catch limits.</p> <p>The Department acknowledges that Queensland's automated integrated voice response (AIVR), Vessel Monitoring Systems (VMS) and catch unload records help validate logbook records of landed catch and fishing effort, there is no independent data collection or validation for discarded catch, including bycatch, unmarketable target species and protected species. Without independent data collection it is difficult to validate the data reported by fishers and address the identified concerns.</p> <p>The Queensland Government has made some progress towards ensuring there is sufficient information collected, to monitor and assess the fishery's impact on target and non-target species (including protected species) through a range of actions under the Queensland Government's <a href="#">Sustainable Fisheries Strategy 2017–2027</a>. Actions include:</p> <ul style="list-style-type: none"> <li>• Developing and implementing a <a href="#">Data Validation Plan</a> and fisheries monitoring and research plan</li> <li>• Undertaking additional monitoring of key biological stocks to better understand fishery performance and support more timely management actions</li> <li>• Developing partnerships to trial novel technologies for fisheries monitoring including video-based electronic monitoring as a means to collect and validate information on fishing activities</li> </ul>	<p><b>Condition 4</b></p> <p>By <b>30 March 2021</b> the Queensland Department of Agriculture and Fisheries must provide the Department of Agriculture, Water and the Environment with a Data Collection and Validation plan. The Plan must include milestones with clear deadlines for implementing an ongoing independent data collection and validation program in the Commercial Trawl (Fin Fish) Fishery as required in Condition 5.</p> <p><b>Condition 5</b></p> <p>By <b>31 December 2021</b> the Queensland Department of Agriculture and Fisheries must commence ongoing independent data collection and validation in the Commercial Trawl (Fin Fish) Fishery. The program must:</p> <ol style="list-style-type: none"> <li>a) validate, with a high degree of confidence, target and non-target catch, effort and protected species interaction data collected by fishers.</li> <li>b) ensure there is enough fishery dependent and fishery-independent data sources to ensure all stocks impacted by the fishery remain sustainable.</li> </ol> <p>Performance of the program, including comparative analysis of fishery dependent and independent data sources must be included in annual reports provided to the Department of Agriculture, Water and the Environment (refer Condition 3).</p>

<ul style="list-style-type: none"> <li>Developing guidelines for how sustainable catch limits should be set, defining the minimum data requirements and data standards to set catch limits and using improved data to undertake regular stock assessments.</li> </ul> <p>Accurate identification, data collection and reporting is crucial to ensure there is appropriate data to assess, monitor and manage fishery impacts on all retained and discarded species, as well as interactions with protected species.</p> <p>Although the identification of certain species can be challenging, measures should be taken to ensure risks of misidentification are minimised and that fishery data is as accurate and reliable as possible. Where species are not reliably reported to species-level, risks must be managed in a precautionary way.</p>	
<p><b><u>Stock assessments</u></b></p> <p>It is important that all stocks of target and non-target species are managed in a precautionary way. Stock assessments can help understand the extent to which stocks can sustain impacts from things such as fishing. QDAF assess various fish stocks in the CTFFF and manage these and other stocks using a precautionary approach to account for uncertainty and risk.</p> <p>Recently, stock assessments have not been undertaken as scheduled, and processes have been changed to no-longer rely on biological data collected from the fishery. There is information on stock structure but also concerns that the data collected on discarded catch may not be accurate. This is particularly significant since fishing commenced in inshore nursery areas under trial arrangements, where the proportion of unmarketable and discarded juvenile fish may be higher.</p> <p>Assessments should be completed regularly and consider the full extent of the impacts on stocks, including any trial arrangements and other fisheries, to ensure the stocks remain sustainable. Assessments should also account for changes to fishing capacity (technological, spatial and temporal) that may affect their findings. If assessments deviate from agreed schedules or account for changes in the fishery, the rationale for these changes must be clearly explained and precautionary management responses taken.</p> <p>The Department notes that QDAF established a <a href="#">Sustainable Fisheries Expert Panel</a> in 2017 which includes members with expertise in stock assessment, fish biology</p>	<p><b>Condition 6</b></p> <p>The Queensland Department of Agriculture and Fisheries must complete and publish stock assessment(s) for the Commercial Trawl (Fin Fish) Fishery according to the Queensland Department of Agriculture and Fisheries published schedule of stock assessments.</p> <p>The Queensland Department of Agriculture and Fisheries must publish the schedule of stock assessments by <b>1 December 2020</b>.</p> <p>If this schedule changes the Queensland Department of Agriculture and Fisheries must notify the Department of Agriculture, Water and the Environment of the changes and the justification for those changes.</p> <p>Stock assessments must consider all sources of mortality on the stocks and uncertainty must be managed in a precautionary way.</p>

<p>and fisheries management. The panel provides independent expert advice to QDAF on best practice fisheries management, sustainable limits and reference points for individual fisheries and species, the adequacy of proposed fishery harvest strategies, and data, research and monitoring needs.</p> <p>The Department also notes that QDAF plans to determine minimum data standards for all commercial fisheries under the Sustainable Fisheries Strategy. This includes developing guidelines for how sustainable catch limits should be set as part of a harvest strategy, determining how to divide fisheries into smaller units to apply management arrangements at the appropriate scale, setting catch limits and defining the minimum data requirements to set catch limits, using improved data to undertake regular stock assessments.</p> <p>The Department recommends that conditions be applied to the Part 13A approval to ensure these important undertakings are completed as soon as possible, that there are regular and robust assessment of stocks in the fishery, and that all species are managed in a precautionary way.</p>	
<b><u>Part 13 - Issue</u></b>	<b>Proposed Part 13 Conditions</b>
<p><b><u>Reliable fisheries data collection, validation and monitoring</u></b></p> <p>Accurate identification and reporting of retained and discarded catch are crucial to ensure the impacts of fishing can be assessed, monitored and managed sustainably. The Department of Agriculture, Water and the Environment is concerned that fishers may not be accurately reporting the extent of their discarded catch and interactions with protected species.</p> <p>The Department notes that there has been difficulty accurately identifying the main target species (Stout Whiting) in the past (Ovenden &amp; Butcher, 1999) and it is unclear how this affects stock assessments and setting of sustainable catch limits.</p> <p>The Department acknowledges that Queensland's automated integrated voice response (AIVR), Vessel Monitoring Systems (VMS) and catch unload records help validate logbook records of landed catch and fishing effort, there is no independent data collection or validation for discarded catch, including bycatch, unmarketable</p>	<p><b>Condition 1</b></p> <p>By <b>30 March 2021</b> the Queensland Department of Agriculture and Fisheries must provide the Department of Agriculture, Water and the Environment with a Data Collection and Validation plan. The Plan must include milestones with clear deadlines for implementing an ongoing independent data collection and validation program in the Commercial Trawl (Fin Fish) Fishery as required in Part 13A Condition 5.</p> <p><b>Condition 2</b></p> <p>By <b>31 December 2021</b> the Queensland Department of Agriculture and Fisheries must commence ongoing independent data collection and validation in the Commercial Trawl (Fin Fish) Fishery. The program must:</p>

target species and protected species. Without independent data collection it is difficult to validate the data reported by fishers and address the identified concerns.

The Queensland Government has made some progress towards ensuring there is sufficient information collected, to monitor and assess the fishery's impact on target and non-target species (including protected species) through a range of actions under the Queensland Government's [Sustainable Fisheries Strategy 2017–2027](#).

Actions include:

- Developing and implementing a [Data Validation Plan](#) and fisheries monitoring and research plan
- Undertaking additional monitoring of key biological stocks to better understand fishery performance and support more timely management actions
- Developing partnerships to trial novel technologies for fisheries monitoring including video-based electronic monitoring as a means to collect and validate information on fishing activities
- Developing guidelines for how sustainable catch limits should be set, defining the minimum data requirements and data standards to set catch limits and using improved data to undertake regular stock assessments.

Accurate identification, data collection and reporting is crucial to ensure there is appropriate data to assess, monitor and manage fishery impacts on all retained and discarded species, as well as interactions with protected species.

Although the identification of certain species can be challenging, measures should be taken to ensure risks of misidentification are minimised and that fishery data is as accurate and reliable as possible. Where species are not reliably reported to species-level, risks must be managed in a precautionary way.

a) validate, with a high degree of confidence, target and non-target catch, effort and protected species interaction data collected by fishers.

b) ensure there is enough fishery dependent and fishery-independent data sources to ensure all stocks impacted by the fishery remain sustainable.

Performance of the program, including comparative analysis of fishery dependent and independent data sources must be included in annual reports provided to the Department of Agriculture, Water and the Environment (refer Part 13A Condition 3).

***Assessment history:***

Information on previous assessments for the Queensland Commercial Trawl (Fin Fish) Fishery is available on the Department's website at <http://www.environment.gov.au/marine/fisheries/qld/commercial-trawl>.

**1st assessment:** Wildlife Trade Operation approval granted for 16 November 2004 – 24 November 2007, subject to three conditions and 12 recommendations.

**2<sup>nd</sup> assessment:** Wildlife Trade Operation approval granted for 21 November 2007 – 20 November 2010, subject to three conditions and three recommendations. Approval was subsequently extended twice via the List of Exempt Native Specimens until 19 August 2011.

**3<sup>rd</sup> assessment:** Wildlife Trade Operation approval granted for 16 August 2011 – 15 August 2014, subject to three conditions and one recommendation (with two additional sub-parts). Approval was subsequently extended three times via the List of Exempt Native Specimens until 16 February 2017.

**4<sup>th</sup> assessment:** Wildlife Trade Operation approval granted for 15 February 2017 – 14 February 2020, subject to six conditions. Approval was subsequently extended three times via the List of Exempt Native Specimens, most recently until 31 August 2020.

### SECTION 3: DETAILED ANALYSIS AGAINST THE GUIDELINES

Guidelines criteria	Comment
<b>THE MANAGEMENT REGIME</b>	
The management regime may include a statutory or non-statutory management arrangements, policies and programs. The regime should:	
Be documented, publicly available and transparent.	<p><b>Meets – Arrangements are documented, publicly available and transparent</b></p> <p>The management arrangements for the Commercial Trawl (Fin Fish) Fishery (CTFFF) are contained in publicly available legislation: the Queensland <i>Fisheries Act 1994</i>, Fisheries (General) Regulation 2019, Fisheries (Commercial Fisheries) Regulation 2019, Fisheries Declaration 2019, and the Fisheries Quota Declaration 2019.</p>
Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public.	<p><b>Meets – Consultative processes involve a wide range of stakeholders and the general public</b></p> <p>The management arrangements for the CTFFF have been developed in consultation with industry and other stakeholders, and where substantive management changes are proposed, Regulatory Impact Statements are released for public comment. These statements set out proposed changes, their justification and alternative options.</p> <p>Unlike some other Queensland-managed fisheries, there is no established <a href="#">fisheries working group</a> for the CTFFF. However, the fishery utilises the expertise of the <a href="#">Trawl Fishery Working Group</a> (the working group for the Queensland East Coast Otter Trawl Fishery (ECOT)) to inform certain management decisions in the CTFFF. QDAF also consult directly with CTFFF licence holders. The Trawl Fishery Working Group includes commercial fishers, recreational fishers, conservation sector representatives, members of the Great Barrier Reef Marine Park Authority and QDAF.</p>

<p>Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process.</p>	<p><b>Meets – Expert panel with a range of interests oversees matters including stock assessments</b></p> <p>Stock assessments are undertaken by experienced QDAF stock assessment scientists.</p> <p>A <a href="#">Sustainable Fisheries Expert Panel</a> was established in July 2017. The panel includes an independent chair and members selected based on their expertise in stock assessment, fish biology, fisheries management and or resource allocation, threatened species, economics and social and or cultural matters.</p> <p>The panel provides independent expert advice to QDAF on best practice fisheries management and implementation of the Sustainable Fisheries Strategy for all Queensland fisheries. The panel also advises on sustainable limits and reference points for individual fisheries/species, the adequacy of proposed fishery harvest strategies, and data, research and monitoring needs.</p> <p>The panel provided input into the methods for stock assessments and subsequently endorsed the proposed stock assessment program.</p> <p>Each stock assessment is supported by a project team including members with specific expertise for the target species, relevant fishery managers, the QDAF data team, and members of the QDAF stock assessment team. Project team meetings follow a specific agenda to consider and endorse all aspects of each stock assessment including; data sources, data limitations, fishing history, species life history data, suitable model types, management objectives, report content, required outputs and timelines. The project team that oversees Stout Whiting stock assessments and annual catch rate analyses. This team includes a member representing New South Wales Fisheries (QDAF pers comm. 3 July 2020).</p>
<p>Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured.</p>	<p><b>Does not meet – Inadequate or non-existent objectives and performance criteria. The effectiveness of management is not measured.</b></p> <p>A <a href="#">performance measurement system</a> was published for the CTFFF in 2007, but is no longer in effect.</p> <p>Catch and other information is periodically assessed by QDAF but there is no formal process for monitoring or managing fishery performance.</p> <p>QDAF has advised that a harvest strategy containing strategic objectives and performance criteria, by which the effectiveness of the management arrangements can be measured, will be developed, and implemented in 2021. The existing management arrangements are likely to be effective until a harvest strategy is implemented.</p>



Be capable of controlling the level of harvest in the fishery using input and/or output controls.

**Meets – The level of harvest is effectively controlled using catch limits and quotas**

The harvest of target species and certain by-product species is controlled through annual total allowable commercial catch limits (TACCs). This fishery-wide limit is allocated amongst fishery licence-holders as individual transferable quota (ITQ) and it is these ITQs that govern how much each licence holder can catch. By-product species that are not subject to TACCs and ITQs are managed using vessel-based possession limits. Other harvest controls include restrictions on the total number of fishing licences in the fishery, where and when fishers can operate, and what boats and gear they can use.

Species that are subject to TACCs and ITQs must be reported using QDAF's Automated Integrated Voice Response (AIVR) system. The AIVR system requires fishers to report their catch prior to landing, and this helps to facilitate compliance inspections and enforcement of catch limits. Mandatory use of Vessel Monitoring Systems (VMS) also provide information to QDAF about vessel locations and activities.

Contain the means of enforcing critical aspects of the management arrangements.

**Partially meets – some concerns regarding fishers' compliance with reporting requirements**

QDAF use a Compliance Risk Assessment framework to develop state and regional operation plans and deliver their compliance program. An overview of this program is available on the [QDAF website](#).

Vessel Monitoring Systems are used on all Queensland commercial fishing vessels to track their location, validate reported fishing activity, and enhance QDAF's capacity to undertake vessel inspections. Fishers are also required to report all retained catch of species that are subject to catch limits using QDAF's AIVR system. This helps facilitate compliance inspections where necessary.

Once landed, catches are weighed, and weighbridge dockets provided to QDAF to verify the catch weights reported in fishers' logbooks. QDAF are seeking to strengthen this catch validation arrangement, by requiring catches to be landed to authorised fish receivers, who will verify landed catch weights and report their data independently to QDAF. QDAF's planned video-based electronic observer program, when implemented in this fishery, is also expected to help validate catch and other information reported by commercial fishers.

Specific bycatch logbooks were used in the fishery but were discontinued around the time that the on-board observer program ceased in 2010. QDAF's current [Stout Whiting Trawl Fishery \(T4\) Logbook](#) states that "all discarded product must be recorded", but QDAF only require a small number of species which are permitted to be landed in the CTFF and ECOT to be recorded (QDAF pers comm. 8 May 2020). Despite this requirement and the apparent contradiction in the logbook instructions, the logbook only provides for fishers to report discards of seven species or species groups. Records of discarded catch (target and non-target species) since 2010 show that the number of species being reported by fishers has fallen sharply from 15 species to an average of 3 species over the past five years (QDAF pers comm. 8 May 2020). The weight of reported discards has also fallen considerably, from over 105 tonnes in 2010 to as little as 100 kilograms in 2013 (all of which was Stout Whiting; QDAF pers comm. 8 May 2020). There has also been no reported discarding of Stout Whiting since 2013, despite trial fishing commencing in 2017, in inshore nursery grounds where the proportion of unmarketable, juvenile Stout Whiting is expected to be higher.

QDAF observer reports also raise concerns about the reliability of reporting for non-retained species, and bycatch data that has not been published by QDAF since the 2009 fishing season. The on-board observer program which validated records during 2009-2010 is also no-longer operating.

Further concerns have been raised regarding the accuracy of fishers' protected species interaction reporting. In part this is due to fishers not having reported any interactions with EPBC Act listed

	<p>Syngnathids to date, despite these species having been reported by QDAF observers when they were onboard during 2009-2010.</p> <p>To support their data validation and compliance efforts, QDAF published a <a href="#">Data Validation Plan</a> in March 2018. This plan is expected to be delivered by the end of 2020 in accordance with the Queensland Government's <a href="#">Sustainable Fisheries Strategy 2017-2027</a>.</p> <p>The Department recommends that <b>conditions 1 and 2</b> be applied to the Part 13 approval, and <b>conditions 4 and 5</b> be applied to the Part 13A approval to ensure that critical data collection, monitoring and enforcement actions are delivered by <b>31 December 2021</b>.</p>
<p>Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria.</p>	<p><b>Does not meet – No framework for performance reviews in place</b></p> <p>A <a href="#">performance measurement system</a> was published for the CTFFF in 2007, but is no longer in effect.</p> <p>Catch and other information is periodically assessed by QDAF but there is no formal process for monitoring or managing fishery performance.</p> <p>QDAF has advised that a harvest strategy containing strategic objectives and performance criteria, by which the effectiveness of the management arrangements can be measured, will be developed, and implemented in 2021. The management arrangements are likely to be effective until a harvest strategy is implemented.</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.

**Partially meets – risk mitigation, monitoring and research commitments require review**

A Level 1, qualitative ecological risk assessment (ERA) was published for the CTFFF in February 2020. The ERA is designed to guide ecological risk mitigation in the fishery and spans target, by-product and bycatch species (including protected species), marine habitats and ecosystem processes ([Walton & Jacobsen, 2019](#)).

Ecological risks in the CTFFF are managed through spatial and temporal restrictions and requirements for fishers to use Turtle Excluder Devices (TEDS) when Otter Trawling. Use of TEDS is not required for fishers using Danish Seine gear. No ecological components were found to be at high risk from the CTFFF.

The ERA found that risks to the wider marine ecosystem were low to intermediate. However, the ERA did not consider the impacts of the four-year fishing trial that has been occurring in inshore Stout Whiting nursery areas. Given these inshore areas were previously closed to help mitigate the ecological risks associated with the CTFFF, they should have been assessed to ensure ecological risks in the fishery are known and effectively managed.

The ERA states that the risk assessment for the CTFFF would benefit from additional information on the composition of non-target species (bycatch and species of conservation concern) and the effectiveness of the two fishing methods (Danish Seine and Otter Trawl). Actions identified in the ERA as necessary to refine the risk profiles in the CTFFF include:

- Improving the level of information on catch compositions for elasmobranchs (e.g. sharks and rays) and other non-target species, with emphasis on bycatch compositions and release fates.
- Continued evaluation of the use of Otter Trawl and Danish Seine nets in the fishery, the economic benefits/constraints of each method, target species retention rates, and their potential to impact on non-target species.

QDAF will be addressing these knowledge gaps through their Monitoring and Research Plan. However, the current [Monitoring and Research Plan](#) does not include these measures and does not extend beyond 2017-2018. QDAF has advised that the plan is being updated and used on an ongoing basis and that all recommendations from the Level 1 ERA reports have already been included in the plan (QDAF pers comm. 2020).

QDAF use the plan to identify priority research and monitoring needs, allocate budget to key projects and engage in collaborations with research partners. Some projects have been funded by the Fisheries Research and Development Cooperation (FRDC) during the last two years. Research priorities to

	<p>improve management and reduce ecological risks in the CTFFF are being considered alongside all the other fisheries where ERAs have been completed. At this stage, timelines for implementing programs specific to the CTFFF are not available and QDAF advise that they are likely to be considered during the harvest strategy development process in cooperation with industry and other stakeholders (QDAF pers comm. 8 May 2020).</p> <p>The Department recommends that <b>conditions 1 and 2</b> be applied to the Part 13 approval and <b>conditions 4-6</b> be applied to the Part 13A approval to ensure the necessary information is available and processes are established to monitor and manage the sustainability of the fishery by <b>31 December 2021</b>.</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 – Compliant with all relevant plans</b></p> <p>Given the CTFFF operates in both state and Commonwealth areas, the management arrangements for the fishery are required to comply with all relevant Commonwealth threat abatement plans, recovery plans and bycatch policies or strategies. This includes the <a href="#">Threat Abatement Plan for the impacts of marine debris on the vertebrate wildlife of Australia's coasts and oceans</a> and the <a href="#">Recovery Plan for Marine Turtles in Australia</a>.</p> <p>Although CTFFF management arrangements are not <i>inconsistent</i> with these plans, they do not specifically require fishers to comply with plans, policies or strategies.</p> <p>Management arrangements for the fishery prohibit the retention of species listed under the EPBC Act, and all interactions with these species are required to be reported using QDAF approved logbooks. There are some concerns that reporting interactions with protected species may not be accurate. The Department recommends that <b>conditions 1 and 2</b> be applied to the Part 13 approval and <b>conditions 4 and 5</b> be applied to the Part 13A approval to strengthen and improve confidence in the data for the fishery by <b>31 December 2021</b>. These conditions seek to broaden the range of expertise and interests involved in management of the fishery and implement an ongoing independent data collection and validation program to ensure there is a high degree of confidence in fishery dependent and fishery-independent data sources.</p> <p>The Department recommends that all relevant threat abatement plans, recovery plans, bycatch policies and action strategies be considered in developing the harvest strategies and assessing and mitigating ecological risks. The management arrangements are likely to be effective until a harvest strategy is implemented in 2021.</p>

**PRINCIPLE 1** - 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.

**Objective 1** - 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.

***Information requirements***

**1.1.1** 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.

**Does not meet – Limited data collection with insufficient independent research or monitoring**

All commercial fishers in the CTFFF are required to report retained and discarded catch, fishing effort and interactions with protected species in [Stout Whiting Trawl Fishery \(T4\) logbooks](#). Vessel Monitoring Systems are also used on all commercial fishing vessels to track vessel location. While the VMS validates reported fishing activity and enhance QDAF's capacity to undertake inspections. It does not provide adequate independent data to validate the fishery's catch, bycatch and discards.

Species that are subject to catch limits must be reported using QDAF's AIVR system. This system requires catches to be reported prior to landing and facilitates compliance inspections where necessary.

Once landed, catches are weighed, and weighbridge dockets provided to QDAF to verify catch weights reported in fisher logbooks. QDAF are seeking to strengthen this arrangement, by requiring catches to be landed to authorised fish receivers, who will verify landed catch weights and report this data independently to QDAF.

Questions have been raised about the accuracy of reported catch data. This stems from research on Stout Whiting undertaken by QDAF (Ovenden & Butcher, 1999). The research found that 25 per cent of the fish that were thought to be Stout Whiting, were in fact Bay Whiting (*S. ingenuua*). It is unclear whether the potential mix of whiting species is accounted for in assessing the stocks and determining sustainable catch limits. No stock assessment or ecological risk assessment has been undertaken for Bay Whiting.

Until recently, commercial fishers provided QDAF with samples of fish from each fishing trip. These samples were used to determine the age and length of the fish and to inform stock assessments ([Wortmann & O'Neill, 2016](#)). QDAF has advised that this data is no-longer being collected or used and now only catch rate data is considered in stock assessments (QDAF pers. comm., 2020). It is unclear what impact it has had on stock assessment outcomes.

Specific bycatch logbooks used in the fishery were discontinued around the time that the on-board observer program ceased in 2010. Bycatch reporting is now facilitated through QDAF's [T4 logbook](#). The logbook states that "all discarded product must be recorded", but only provides for seven species or species groups to be recorded. Since 2010, the number of species and weight of discarded catch being reported has fallen markedly. Given the relatively high bycatch rates associated with the fishing methods used in the CTFFF, the Department is concerned that this change reflects a change in reporting behaviour rather than a change to the amount of bycatch being caught.

Actual levels of bycatch cannot be verified since the on-board observer program which validated records during 2009-2010 is no-longer operating. However, when this program was operating in 2009-2010, it also raised concerns about the accuracy of CTFFF-fishers' reporting.

Analysing observer records from that time also indicates that there has been inaccurate reporting of protected species by fishers. Fishers to date have not reported any interactions with EPBC Act listed Syngnathids, despite these species having been reported by on-board observers during their limited trips in 2009-2010.

QDAF plans to implement a video-based electronic observer program in the CTFFF and other Queensland fisheries which will help validate catch and other information reported by commercial fishers, including records of interactions with protected species. To support their data validation and compliance efforts, QDAF published a [Data Validation Plan](#) in March 2018. This plan is expected to be delivered by the end of 2020 in accordance with the Queensland Government's [Sustainable Fisheries Strategy 2017-2027](#).

QDAF also plans to determine minimum data standards for all commercial fisheries under the Sustainable Fisheries Strategy. This includes defining the minimum data requirements to set catch limits and determining how to divide the fishery into smaller units (e.g. fish stocks and/or regions) in order to apply management arrangements at the appropriate scale.

The Department recommends that **conditions 1 and 2** be applied to the Part 13 approval and **conditions 4 and 5** be applied to the Part 13A approval to ensure the necessary information is available to monitor and manage the sustainability of the fishery by **31 December 2021**.



## ***Assessment***

**1.1.2** 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.

**Partially meets – Stock assessments irregular, or pending, precautionary management**

QDAF typically undertake triennial stock assessments of Stout Whiting biomass and use these estimates to inform their setting of TACC limits for the commercial fishery. QDAF then review the annual commercial catch rates from Queensland and New South Wales commercial vessels each year and adjust the TACCs where necessary ([Wortmann & O'Neill, 2016](#)). More recently the [Queensland Sustainable Fisheries Strategy 2017-2027](#) has specified that stock assessments will be undertaken annually or at least every two years for key stocks (Action 2.2). QDAF's last TACC analysis was undertaken four years ago in 2016 and TACCs have not been adjusted since that time. QDAF has advised that the CTFFF will undertake their next stock assessment for Stout Whiting by March 2021 and then repeat the assessment every three years thereafter (QDAF pers. comm. 3 July 2020). There have also been no stock assessments or TACC setting processes since fishing was extended into waters shallower than 20 fathoms, that are known to be important nursery grounds for Stout Whiting.

An updated stock assessment for the CTFFF is being prepared and QDAF anticipate the revised assessment will include updated biomass estimates and additional data from trial areas, along with NSW catch and effort data (QDAF pers comm. 8 May 2020). The next TACC analysis is also expected to be completed in August 2020 and will help determine the TACC for fishing in 2021.

QDAF (pers comm. 8 May 2020) has advised that stock assessments and TACC setting processes for Stout Whiting typically use retained and discarded catch data, standardised catch rates, length-frequency and age-length-otolith data, as well as estimates of stock productivity and survival. Fishery dependent age-length data are no longer being collected for the fishery and recent analyses have been limited to catch rates only. QDAF has advised that, following empirical testing, they have determined that stock assessments can still be prepared without this additional information (QDAF pers comm. 3 July 2020).

QDAF contribute to biennial reviews of national stock status as part of the Fisheries Research and Development Corporation (FRDC) Status of Australian Fish Stocks (SAFS) reporting process. This process considers commercial and non-commercial fishing sectors when determining stock status. There is thought to be little non-commercial fishing for Stout Whiting, but information is either limited or unavailable. Non-commercial sectors are thought to have a negligible impact on the Stout Whiting stock ([Roelofs & Hall, 2018](#); [QDAF, 2019](#)).

The Department is concerned that, in addition to stock reviews not being completed on time, the stock assessments do not appear to account for all sources of mortality. These issues are detailed further at item 1.1.4.

The Department recommends that **condition 6** be applied to the Part 13A approval to ensure there is a regular and robust assessment of stocks in the fishery to identify any reductions in stock levels.

**1.1.3** The distribution and spatial structure of the stock(s) has been established and factored into management responses.

**Partially meets – Stock structure understood but management does not consider all relevant impacts**

Stout Whiting are thought to comprise a single biological stock on Australia's east coast, spanning southern Queensland and northern New South Wales waters (Ovenden & Butcher, 1999).

Up until a fishing trial commenced in late 2017, the CTFFF was restricted to fishing waters deeper than 20 fathoms. This restriction was to avoid resource competition with other commercial fishers and other stakeholders (including recreational users), and to protect juvenile Stout Whiting.

Juvenile Stout Whiting are known to occupy shallow waters, especially during warmer months, and move to deeper offshore waters as they mature ([Hyndes et al. 1999](#); Ovenden & Butcher, 1999). Researchers (Ovenden & Butcher, 1999) have cautioned that if these nursery stocks are supplying recruits into the 20-50 fathom part of the CTFFF, then the fishing mortality associated with those inshore fisheries could have a major impact on future catches by the CTFFF.

It is likely that the increased fishing effort in inshore waters that has been occurring under trial arrangements since 2017 has had some impact on Stout Whiting stocks in the broader CTFFF. It is also likely to have had some impact on other inshore species.

Determining the sustainability of impacts on Stout Whiting stocks due to the inshore trial is likely to be difficult given the lack of discarded catch reporting for this species (none since 2013), the relative abundance of juvenile fish in inshore areas, and difficulties detecting changes in catch rates (as an index of stock abundance) as the fishery changes fishing areas, fishing seasons and fishing technologies over time.

It is important that assessments must consider the full extent of the fishery and all sources of mortality, including any trial arrangements, and that scheduled assessments should be completed on time and with all necessary information, to ensure stocks can be managed sustainably. Where assessments are not undertaken, or the veracity of the processes is diminished, this should be reflected in more precautionary management.

The Department recommends that **condition 6** be applied to the Part 13A approval to ensure there is a regular and robust assessment of stocks in the fishery, and that the spatial structure of the stock is managed in a precautionary way.

**1.1.4** 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.

**Partially meets – data availability and reliability concerns, not all relevant information considered in assessing and managing stocks**

The CTFFF targets Stout Whiting and Red Spot Whiting and retains various by-product species in state and Commonwealth waters off Queensland's southern coast. Stout Whiting on Australia's east coast are thought to comprise a single stock. This stock is targeted commercially by the New South Wales Ocean Trawl Fishery as well as the Queensland CTFFF.

*Estimates of all removals from the fished stock*

Commercial fishers in the CTFFF are required to report all retained catch in QDAF's [Stout Whiting Trawl Fishery \(T4\) Logbook](#). However, concerns have been raised about the reliability of reported discard catch data and protected species interactions. The on-board observer program which validated records during 2009-2010 is no-longer operating.

QDAF plan to implement a video-based electronic observer program in the CTFFF and other Queensland fisheries, which will help validate catch and other information reported by commercial fishers. To support their data validation and compliance efforts, QDAF published a Data Validation Plan in March 2018. This plan is expected to be delivered by the end of 2020 in accordance with the Queensland Government's Sustainable Fisheries Strategy 2017-2027.

There is thought to be little non-commercial fishing for Stout Whiting, but information is either limited or unavailable. Non-commercial sectors are thought to have a negligible impact on the Stout Whiting stock ([Roelofs & Hall, 2018](#); [QDAF, 2019](#)).

*Stout whiting as bycatch*

Unmarketable (undersized and or damaged) Stout Whiting have been discarded by the CTFFF in the past, but the fishery has not reported any discarding since 2013 (QDAF pers comm 8 May 2020). Given CTFFF fishers commenced fishing in inshore nursery where the proportion of juvenile fish is expected to be higher, the proportion of unmarketable undersized whiting bycatch is expected to have increased. It is also unlikely that any bycatch reduction methods used could be entirely effective. Without any independent data collection or validation, it is difficult to determine the accuracy of the reported data.

Other commercial fisheries, such as the East Coast Otter Trawl Fishery, also catch and discard significant volumes of juvenile and adult Stout Whiting, as well as other CTFFF species, in many of the same areas as the CTFFF. Stout Whiting (at least) are not thought to survive capture and release (Ovenden & Butcher, 1999) and this can significantly affect stocks ([Walton & Jacobsen, 2019](#)).

CTFFF fishers use very similar gear and methods to these other trawl fisheries and the Department is concerned that significant changes in bycatch reporting may reflect poor compliance with reporting requirements. It is likely that the increased fishing effort in inshore waters, by CTFFF fishers under trial arrangements, increases the risks to Stout Whiting and other species, on top of what has already been forecast for other fisheries (Ovenden & Butcher, 1999). However, the ERA for the CTFFF does not consider the impacts of the trial. Consideration of impacts associated with commercial fisheries outside Queensland's jurisdiction (e.g. New South Wales) were considered in the ERA process (QDAF pers comm. 8 May 2020) but are not discussed in the ERA ([Walton & Jacobsen, 2019](#)). All sources of mortality should be considered in managing stocks.

Recent research in New South Wales indicates that the east-Australian Stout Whiting stock has been significantly impacted by commercial fishing (including as bycatch) ([Gray et al., 2017](#)). In Queensland, the ECOT, River and Inshore Beam Trawl (RIBT) and other fisheries trawl the same area as the CTFFF and despite not targeting species caught by the CTFFF, kill many of these species as bycatch. Stout Whiting is the primary bycatch species in the ECOT ([Courtney et al., 2007](#)) and bycatch related mortality is thought to be high ([Ovenden & Butcher, 1999](#)). The ERA for the CTFFF found significant potential for the ECOT to influence Stout Whiting stocks ([Walton & Jacobsen, 2019](#)). The ERA for the ECOT found the risk from the ECOT to Stout Whiting was 'intermediate' but did not outline risk mitigation measures for this species ([Jacobsen et al., 2018](#)). The ECOT is thought to be the biggest influence on Stout Whiting stocks, outside of the CTFFF in Queensland's jurisdiction ([Walton & Jacobsen, 2019](#)).

#### *Inshore trial*

Since 2017, CTFFF fishers have been permitted to fish in more inshore waters under trial arrangements. The historic restriction of the CTFFF to waters deeper than 20 fathoms was to avoid competition with other trawl fisheries and to minimise impacts on juvenile Stout Whiting.

Although QDAF has advised that there is no information to show that juvenile Stout Whiting only exist in areas less than 20 fathoms, there is considerable evidence to suggest that juvenile Stout Whiting use protected nearshore waters as nursery areas, and migrate offshore to sandy regions of the inner shelf as they increase in size ([Burchmore et al., 1988](#); [Butcher & Brown, 1995](#); [Hyndes et al., 1997](#), [Hyndes et al., 1999](#); Ovenden & Butcher, 1999). Researchers have cautioned that if these nursery stocks are supplying recruits into the offshore (20 to 50 fathom non-trial) part of the CTFFF, then the mortality associated with trawling those shallower waters could have a major impact on catches in the CTFFF (Ovenden & Butcher, 1999).

There is evidence to suggest that the fishery has in the past attempted to address the effects of heavy exploitation of stocks through repeated expansion of fishing areas ([Butcher & Brown, 1995](#)). Recent examples of fishery expansion include an extension of the southern fishery limits from Caloundra to the New South Wales border, a four month extension to the fishing season (from April through December, to January through December), removal of the fishing ban that applied from 20 September to 1 November each year, and most recently in 2017, expansion of the fishery into waters shallower than 20 fathoms (as a trial). QDAF advise that one of the key reasons for the trial is to help fishers catch their quotas more efficiently (more catch per unit effort) rather than increase the amount the fishers catch.

Given the fishery's reliance on catch rate information to determine stock status, there is a risk that changes to fishing areas and fishing seasons are affecting catch rates and impacting stock assessments. This may be compounded by improvements in the efficiency and effectiveness of trawl fishing associated with improvements to boats, fishing gear, GPS and mapping software ([O'Niel & Leigh, 2007](#)). These factors do not appear to be considered in the stock assessments for the fishery.

If bycatch is not being accurately reported in Queensland commercial fisheries, it is unlikely this mortality to Stout Whiting is accounted for in stock assessments for other fisheries. It is also unlikely that any discarding of undersized whiting by the CTFFF, especially in the inshore trial area where the proportion of juvenile fish is likely to be higher, is being reported or considered in stock assessments.

#### *Conclusion*

It is important that assessments consider the full extent of the fishery, including any trial arrangements, that the assessments should account for all sources of mortality, and that changes to fishing capacity (technological, spatial and temporal) must be considered and accounted for in the assessments. Scheduled assessments and management responses should also be completed on time to ensure the stocks remain sustainable. If assessments are to deviate from agreed schedules, the rationale for this deviation should be clearly explained and precautionary management responses taken.

The Department notes that QDAF established a [Sustainable Fisheries Expert Panel](#) in 2017 which includes members with expertise in stock assessment, fish biology and fisheries management.

The panel provides independent expert advice to QDAF on best practice fisheries management, sustainable limits and reference points for individual fisheries and species, the adequacy of proposed fishery harvest strategies, and data, research and monitoring needs.

The Department also notes that QDAF plans to determine minimum data standards for all commercial fisheries under the Sustainable Fisheries Strategy. This includes developing guidelines for how

	<p>sustainable catch limits should be set as part of a harvest strategy, determining how to divide fisheries into smaller units to apply management arrangements at the appropriate scale, setting catch limits and defining the minimum data requirements to set catch limits, using improved data to undertake regular stock assessments.</p> <p>The Department recommends that <b>condition 6</b> be applied to the Part 13A approval to ensure there is a regular and robust assessment of stocks in the fishery, and that all species are managed in a precautionary.</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 – poor estimates of potential productivity and proportion that can be harvested</b></p> <p>Stock assessments have been conducted for Stout Whiting, as well as two of the eight by-product species or species groups (Yellowtail Scad, Balmain and Moreton Bay Bugs) and found these stocks to be sustainable (<a href="#">FRDC, 2018</a>). However, these assessments do not appear to use estimates of stock productivity, and do not account for fishing in the trial areas (waters shallower than 20 fathoms) which are important nursery areas, at least for Stout Whiting.</p> <p>Stocks of remaining by-product species (Threadfin Bream, Goatfish, Cuttlefish, Octopus and Squid) and bycatch species have not been assessed. Although these species were found to be at ‘low’ risk from the CTFFF in the ERA for the fishery (<a href="#">Walton &amp; Jacobsen, 2019</a>).</p> <p>It is likely that catch composition in the inshore trial areas differs to that in the rest of the CTFFF. However, the impacts of the trial on CTFFF stocks were not considered in the ERA for the CTFFF.</p> <p>All future ERAs must ensure that all target, by-product and bycatch species throughout the fishery (CTFFF and trial) are assessed so they can be managed in a precautionary way.</p> <p>The Department recommends that <b>condition 6</b> be applied to the Part 13A approval to ensure there is a regular and robust assessment of stocks in the fishery, and that all species are managed in a precautionary way.</p>



<b>Management responses</b>	
<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>Does not meet – No reference points that trigger management actions</b></p> <p>Annual TACC limits provide a threshold beyond which additional catch cannot be retained. However, there are no reference points or management triggers in the CTFFF that guide management when stock levels or risks change.</p> <p>A harvest strategy for the CTFFF is expected to be developed as part of the Queensland Government's Sustainable Fisheries Strategy 2017–2027. This harvest strategy is expected to include target and limit reference points that trigger management actions and be implemented in 2021.</p> <p>Considering the scale of the fishery, the management arrangements are likely to be effective until a harvest strategy is implemented.</p>
<p><b>1.1.7</b> There are management strategies in place capable of controlling the level of take.</p>	<p><b>Meets – effective strategies are in place to control the level of take</b></p> <p>The harvest of target species and certain by-product species is controlled through TACCs, which are allocated as ITQs to permit holders within the fishery. The harvest of remaining by-product species is controlled through possession limits, which are prescribed in regulation.</p> <p>Other controls include restrictions on the total number of licences in the fishery, where and when fishers can operate, and what boats and gear they can use.</p> <p>Species that are subject to TACCs are required to be reported using QDAF's AIVR system and commercial fishers are required to check their available quota before departing on a commercial fishing trip. Once the TACC or an individual's ITQs have been exhausted, commercial access to those species is closed for the remainder of the year.</p> <p>QDAF use VMS to monitor vessel activity and enforce compliance with catch and other management controls.</p>

<p><b>1.1.8</b> Fishing is conducted in a manner that does not threaten stocks of by-product species.</p>	<p><b>Partially meets –strategies exist in part of the fishery</b></p> <p>The ERA for the CTFFF found the current management arrangements in the fishery pose a ‘low’ risk to by-product species (<a href="#">Walton &amp; Jacobsen, 2019</a>). However, the ERA did not consider the impacts of fishing in waters shallower than 20 fathoms which is being undertaken as part of a four-year trial. This is significant given the trial fishing areas were historically closed to fishing as an ecological risk mitigation measure for the CTFFF.</p> <p>The harvest of by-product species is controlled through catch limits (TACCs and ITQs, or possession limits). QDAF advise that there is little fishing pressure directed at these species and the catch levels are monitored each year (QDAF pers comm. 8 May 2020). It is unclear however what the catch limits are based on and therefore difficult to comment on their sustainability. Only five of the eight by-product species have had their stock status assessed.</p> <p>Other controls include restrictions on the total number of licences in the fishery, where and when fishers can operate, and what boats and gear they can use.</p> <p>Fishers must report all catch of species that are subject to TACCs using QDAF’s AIVR system and check available quota holdings before departing on a commercial fishing trip. Once the TACC or an individual’s ITQs have been exhausted, commercial access to those species is closed for the remainder of the year. QDAF use VMS to monitor vessel activity and enforce compliance with these and other management controls.</p> <p>The Department recommends that <b>conditions 1 and 2</b> be applied to the Part 13 approval and <b>conditions 4-6</b> be applied to the Part 13A approval to ensure there is reliable data and regular and robust assessments of stocks in the fishery, and that stocks of by-product species are managed in a precautionary way by <b>31 December 2021</b>.</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 – subject to conditions</b></p> <p>The management arrangements, including stock assessments, catch limits and limited entry, appear reasonably robust, but could be improved by better data collection, validation and monitoring, and more strategic management frameworks, as proposed under a harvest strategy for the fishery. It is important that all species impacted by the fishery are managed in a precautionary way. The Department has proposed <b>conditions 1 and 2</b> on the Part 13 approval, and <b>conditions 4-6</b> on the Part 13A approval to ensure management is precautionary and the fishery remains sustainable.</p>

**Objective 2** - 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.

**Management responses**

**1.2.1** 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.

**1.2.2** 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.

**Not applicable**

No stocks in the CTFFF are overfished.

**PRINCIPLE 2** - Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

**Objective 1** - The fishery is conducted in a manner that does not threaten bycatch species.

**Information requirements**

**2.1.1** Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.

**Does not meet – reliable information is not collected on composition and abundance of bycatch**

Bycatch information was collected by observers in the CTFFF over 110 sea-days during 2009 and 2010 ([Rowsell & Davies, 2012](#)). This equated to approximately 16 per cent coverage of fishing days during that period. The use of bycatch logbooks by fishers was also evaluated during this 2009-2010 period, but reporting was found to be poor and the use of these logbooks was subsequently discontinued ([Rowsell & Davies, 2012](#)). Bycatch reporting is now facilitated through QDAF's [Stout Whiting Trawl Fishery \(T4\) Logbook](#). The [logbook](#) states that "all discarded product must be recorded", but only provides for seven species or species groups to be recorded, and has advised that only certain species which are permitted to be landed in the CTFFF and ECOT are required to be reported (QDAF, pers comm. 8 May 2020). Since 2010, the number of species and weight of discarded catch being reported has fallen markedly.

Records of discarded catch (target and non-target species) since 2010 show that the number of species being reported by fishers has fallen sharply from 15 species to an average of 3 species over the past five years (QDAF pers comm. 8 May 2020). The weight of reported discards has also fallen considerably, from over 105 tonnes in 2010 to as little as 100 kilograms in 2013 (all of which was Stout Whiting; QDAF pers comm. 8 May 2020). There has also been no reported discarding of Stout Whiting since 2013, despite trial fishing commencing in 2017, in inshore nursery grounds where the proportion of unmarketable, juvenile Stout Whiting is expected to be higher.

QDAF observer reports also raise concerns about the reliability of reporting for non-retained species, and bycatch data that has not been published by QDAF since the 2009 fishing season. The on-board observer program which validated records during 2009-2010 is also no-longer operating.

QDAF report that and that operators have become better at targeting schools of Stout Whiting, resulting in less discarded catch (QDAF pers comm 2020). However, it is unlikely that the fishery would be able to avoid all bycatch. The Department is concerned that this reflects a change in reporting rather than the absence of discarding.

Information on the full extent of bycatch has not been collected for the CTFFF since the 2009-2010 observer coverage, and there is no data available on bycatch from the trial fishing area which has been operating since 2018 and is likely to differ to the offshore part of the fishery as reported in 2009-2010.

The 2009-2010 observer data from the CTFFF showed bycatch levels and compositions vary between Danish Seine and Otter Trawl methods. Bycatch ranged from 39–49 per cent for Otter Trawl catch, and 24–51 per cent for Danish Seine. Bycatch species diversity was also higher when Otter Trawl gear was

used compared to Danish Seine gear, but larger animals were caught more frequently with Danish seine gear, probably because bycatch exclusion devices are not required to be used when using Danish Seine gear ([Wortmann & O'Neill, 2016](#)).

Of the teleosts (fin fish) and invertebrates that were discarded in the fishery during the trips observed in 2009-2010, Eye Gurnard, Largescale Saury, Spotted Dragonet, Longspine Flathead, Blue Swimmer Crabs, Three-spotted Crabs and Tailor made up the largest components of bycatch by weight. Of these species, only Blue Swimmer Crabs and Tailor have had their stock status assessed (both are classified as sustainable in Queensland, [FRDC, 2018](#)).

Bycatch mortality rates were only documented for sharks, rays and protected species, but the majority of bycatch is unlikely to survive capture and release. The bycatch data relating to sharks and rays showed that Otter Trawl fishing had higher rates of direct or in-situ mortality when compared to Danish Seine fishing and this is thought to be typical for other bycatch species in the CTFFF as well ([Walton & Jacobsen, 2019](#)). Direct and post-release mortality rates vary depending on the fragility of the species, catch composition (e.g. presence of debris, large animals etc.), catch weight and shot duration ([Lindeboom & de Groot, 1998](#)).

Fishers to date have not reported any interactions with EPBC Act listed Syngnathids (seahorses and pipefish), despite these species having been reported by on-board observers when they were onboard during 2009-2010. QDAF plans to implement a video-based electronic observer program in the CTFFF and other Queensland fisheries which will help validate catch and other information reported by commercial fishers, including records of interactions with protected species. To support their data validation and compliance efforts, QDAF published a [Data Validation Plan](#) in March 2018. This plan is expected to be delivered by the end of 2020 in accordance with the Queensland Government's [Sustainable Fisheries Strategy 2017-2027](#).

It is important that accurate information is available to monitor and manage the impacts of the fishery on bycatch. The Department recommends that **conditions 1 and 2** be applied to the Part 13 approval and **conditions 4-6** be applied to the Part 13A approval to ensure there is reliable data and regular and robust assessments of all stocks in the fishery, and that bycatch are managed in a precautionary way.

## Assessment

**2.1.2** There is a risk analysis of the bycatch with respect to its vulnerability to fishing.

**Partially meets – risk analysis complete but extent is poorly defined and there are data quality concerns.**

The ERA for the CTFFF found the current management arrangements in the fishery pose an ‘intermediate’ risk to bycatch species ([Walton & Jacobsen, 2019](#)). However, the ERA did not consider the impacts of fishing in waters shallower than 20 fathoms which is being undertaken as part of a four-year trial. This is significant given the trial fishing areas were historically closed to fishing as an ecological risk mitigation measure for the CTFFF. A separate ERA undertaken for the ECOT and River and Inshore Beam Trawl fisheries that operate in the same inshore areas found numerous ecological components, including bycatch and protected species at high risk from those fisheries ([Jacobsen et al. 2018](#)).

The Department also has concerns (discussed under 1.1.4) about the accuracy of discarded catch data being reported by fishers. Without accurate data the reliability of ERA results may be diminished and capacity to monitor and manage ongoing impacts will be difficult.

The intermediate risk rating assigned to bycatch in the CTFFF acknowledged that although Otter Trawl and Danish Seine methods are relatively indiscriminate and have a high potential to interact with a range of non-target species, the overall risk is offset by the relatively small number of licences in the fishery (maximum five) and the low participation rates (average three licences active each year). The risk rating also accounted for the risk mitigation measures in place including gear restrictions (mesh size and requirement to use Turtle Excluder Devices when Otter Trawling), spatial and temporal closures, and VMS to aid the enforcement of these closures ([Walton & Jacobsen, 2019](#)).

Data collection should be reviewed for the fishery and that the ERA for the CTFFF should consider all aspects of the fishery and all influences on its sustainability. Therefore, **conditions 1 and 2** are recommended for Part 13 approval, and **conditions 4 and 5** are applied to the Part 13A approval to meet this objective by **30 June 2021**.

## Management responses

**2.1.3** 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.

**Partially meets – some risk mitigation measures are in place, but may be insufficient**

Otter Trawl and Danish Seine methods are known to be relatively indiscriminate fishing methods that result in large volumes of bycatch. However, QDAF advise that the mesh-size used in the CTFFF and fishers' ability to target Stout Whiting reduce the amount of bycatch (QDAF pers comm. 8 May 2020). QDAF's ERA for the CTFFF suggests these measures are probably appropriate ([Walton & Jacobsen, 2019](#)).

There is, however, very little information available on bycatch in the CTFFF and QDAF require very limited data be reported by fishers. Available data indicates that reporting may not be accurate. Reliable data should be available to monitor the impacts of bycatch and ensure the impacts of fishing remain ecologically sustainable.

Turtle Excluder Devices (TEDs) and Bycatch Reduction Devices (BRDs) have been shown to significantly reduce bycatch volumes in trawl fisheries; particularly for many large marine species ([Brewer et al., 2006](#)). In Queensland, the use of a TED and BRD is mandatory for all fishers in the ECOT, and for fishers operating outside creeks and rivers in the River and Inshore Beam Trawl Fishery. However, in the CTFFF the use of a TED is only mandatory when using Otter Trawl gear (not Danish Seine gear), and BRDs are optional and not used on either gear type (QDAF pers. comm., 2020). QDAF states that the main reason for this is that a high proportion of the target catch will be lost through the BRD along with the unwanted teleosts and invertebrates (Brewer et al., 1998 in [Walton & Jacobsen, 2019](#)). Subsequent studies in prawn and scallop trawl fisheries found that the use of a TED and or a BRD was unlikely to have any effect on whiting catch rates, or on most of the other bycatch species, with the possible exception of large species such as turtles, sharks and rays ([Courtney et al., 2007](#)). A study in the Commonwealth Northern Prawn Fishery reported that the use of TED and or BRD resulted in only a six per cent reduction in target catch, significant reduction in bycatch, and benefits to quality of retained catch ([Brewer et al., 2006](#)).

QDAF report that the use of TEDS and BRDs in Danish Seine gear has proven challenging, but also state that there is less need due to Danish Seine as this method is more selective than Otter Trawl ([Rowell & Davies, 2012](#); [Walton & Jacobsen, 2019](#)).

QDAF advise that the Danish Seine method uses a slow retrieval which herds certain schooling species, including whiting, and has shorter shot times than other methods. For these reasons Danish Seine is considered more selective than other trawl methods and the slow net retrieval and use of on-board hoppers also increase bycatch survival (QDAF pers comm. 3 July 2020).

	<p>QDAF has advised that BRD design and use requires consideration of swimming capacity of target stock. Stout whiting are more effective swimmers than prawns and thus have higher escape rates when BRD are deployed. Studies conducted on prawn trawling operations are therefore not directly transferable to methods that target schooling finfish (QDAF pers comm. 3 July 2020). Notwithstanding, Danish Seine does catch much more bycatch than other, non-trawl, methods.</p> <p>QDAF has listed spatial and temporal closures and limited licence numbers (maximum five) as measures that also contribute to reducing risk to bycatch. However, it is unclear how the risks are affected given areas that were previously closed to fishing for ecological risk mitigation, are now fished under the trial arrangements.</p> <p>With bycatch reduction technologies continuing to evolve, the fishery should continue to explore ways to manage its impact on bycatch species and take all reasonable steps to minimise its ecological impacts. Further work is also required to determine the effectiveness of current bycatch reduction technologies and recommends that <b>conditions 1 and 2</b> be applied to the Part 13 approval, and <b>conditions 4 and 5</b> be applied to the Part 13A approval to ensure all reasonable steps are taken to minimise bycatch and ensure the fishery remains sustainable.</p>
<p><b>2.1.4</b> An indicator group of bycatch species is monitored.</p>	<p><b>Does not meet – no monitoring of any indicator group of bycatch species is in place</b></p> <p>No indicator species or species groups have been identified for monitoring and bycatch data collection and monitoring is also limited and may not be accurate.</p> <p>The Department recommends that <b>conditions 1 and 2</b> be applied to the Part 13 approval and <b>conditions 4-6</b> be applied to the Part 13A approval to ensure there is reliable data and regular and robust assessments of stocks, including bycatch in the fishery, and that all species are managed in a precautionary way.</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>Does not meet – no performance measures implemented</b></p> <p>There are no reference points or management triggers in the CTFFF.</p> <p>A harvest strategy for the CTFFF is expected to be developed in 2021 as part of the Queensland Government's Sustainable Fisheries Strategy 2017–2027. This harvest strategy is expected to include target and limit reference points that trigger management actions and be implemented in 2021.</p> <p>The management arrangements are likely to be effective until a harvest strategy is implemented.</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>Partially meets – concerns regarding data to monitor and manage risks to bycatch species</b></p> <p>Risks to bycatch species were identified as low, however important management changes such as the commencement of fishing in areas previously closed as part of the ecological risk management strategy for the CTFFF should have been considered in the ERA for the fishery. There are concerns regarding the accuracy and adequacy of reporting for non-retained catch and there is also no monitoring of any indicator species groups and no performance measures in place for the fishery. These issues are expected to be addressed under the Queensland Government’s Sustainable Fisheries Strategy 2017-2027 and the Department has proposed <b>conditions 1 and 2</b> on the Part 13 approval, and <b>conditions 4-6</b> on the Part 13A approval to ensure these issues are addressed by <b>31 December 2021</b>.</p>
<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.</p>	
<p><b>Information requirements</b></p>	
<p><b>2.2.1</b> Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities.</p>	<p><b>Partially meets – logbooks used but records may not be accurate or complete</b></p> <p>Queensland commercial fishers are required to report all interactions with protected species using QDAF approved logbooks but to date have only ever reported interactions with sea snakes during the 2009-2010 observer period. Observer coverage undertaken in the fishery during 2009-2010 reported relatively few interactions with protected species, but these included 13 sea snakes and 12 pipe horses (over 500 shots observed. <a href="#">Rowse &amp; Davies, 2012</a>). It is unlikely that pipe horses have not been encountered before or since this observer coverage. If misreporting is occurring, it may be because fishers in the CTFFF do not realise that pipe horses are protected under the EPBC Act and must be reported.</p> <p>The Department is aware that two pipe horse species, which together comprise most of the pipe horse interactions reported by observers in the CTFFF, can be harvested in limited numbers in the East Coast Otter Trawl Fishery. It is possible, that CTFFF fishers assume that because the East Coast Otter Trawl Fishery can take pipe horses in the area of the CTFFF, that the species are not legally protected, and interactions therefore not required to be reported. Accurate information must be available to monitor and manage the impacts of the fishery on protected species.</p> <p>The Department recommends that <b>conditions 1 and 2</b> be applied to the Part 13 approval and <b>conditions 4 and 5</b> be applied to the Part 13A approval to ensure there is reliable data collection, monitoring and risk mitigation for all protected species and communities impacted by the CTFFF.</p>

## Assessments

**2.2.2** There is an assessment of the impact of the fishery on endangered, threatened or protected species.

### **Partially meets – ERA conducted but some concerns regarding accuracy of data on which the assessment is based**

An ERA has recently been completed for the fishery and found no protected species to be at high risk ([Walton & Jacobsen, 2019](#)). There is however information suggesting that information on protected species interactions may not be accurate (refer 2.2.1 above) and the ERA for the CTFFF did not consider the impacts of fishing in waters that were previously closed as part of the ecological risk mitigation strategy for the CTFFF.

A separate ERA undertaken for the ECOT and River and Inshore Beam Trawl fisheries that operate in the same inshore areas found numerous ecological components, including bycatch and protected species at high risk from those fisheries ([Jacobsen et al. 2018](#)).

The ERA states that if effort in the fishery increases significantly and/or the management regime changes, the results of the ERA should be reviewed to determine if one or more of the ecological components need to be progressed to a more quantitative (Level 2) ecological risk assessment. If this occurs, QDAF note that the assessment would benefit from additional information on the composition of non-target species (bycatch and species of conservation concern) and the effectiveness of the Danish Seine and Otter Trawl fishing methods.

QDAF intend to apply for export approval for the trial area in 2020. The Department recommends that an ERA that considers the impacts of fishing in the inshore area and the broader CTFFF area should be included in this application for assessment.

In lieu of any further ERA, QDAF has committed to progress identified knowledge gaps through their Fisheries Queensland Monitoring and Research Plan. The Department recommends that **conditions 1 and 2** be applied to the Part 13 approval and **conditions 4 and 5** be applied to the Part 13A approval to ensure there is reliable data collection, monitoring and risk mitigation for all protected species impacted by the CTFFF by **31 December 2021**.

<p><b>2.2.3</b> There is an assessment of the impact of the fishery on threatened ecological communities.</p>	<p><b>Meets – ERA undertaken, and risks identified as low</b></p> <p>There are no threatened ecological communities in the area of the CTFFF and the ERA for the CTFFF found no other ecological communities at high risk from the fishery (<a href="#">Walton &amp; Jacobsen, 2019</a>). Notwithstanding, the ecological impacts associated with fishing in waters shallower than 20 fathoms should be assessed if this activity is to continue. QDAF intend to apply for export approval for the trial area and the Department recommends an ERA that considers the impacts in the inshore area and the broader CTFFF be included as part of the application for assessment.</p>
<p><b>Management responses</b></p>	
<p><b>2.2.4</b> There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.</p>	<p><b>Partially meets – Mitigation strategies are in place but there are concerns regarding data accuracy</b></p> <p>Current risk mitigation measures include limits on available fishing licences, spatial, temporal and gear restrictions, including mesh-size limits and a requirement for fishers to use TEDs when using Otter Trawl gear. There are however no requirements to use TEDs or BRDs when using Danish Seine gear, but interactions with protected species appear to be relatively low and the ERA for the CTFFF found no protected species were at high risk from the fishery (<a href="#">Walton &amp; Jacobsen, 2019</a>). There are some concerns that reporting of interactions with protected species may not be accurate and this is particularly concerning given areas previously closed to fishing for ecological risk mitigation purposes are now being fished under trial arrangements.</p> <p>With bycatch reduction technologies continuing to evolve, it important that the fishery continue to explore ways to manage its impact on bycatch, including protected species, and take all reasonable steps to minimise its ecological impacts.</p> <p>The Department recommends that <b>conditions 1 and 2</b> be applied to the Part 13 approval and <b>conditions 4 and 5</b> be applied to the Part 13A approval to ensure there is reliable data collection, monitoring and risk mitigation for all protected species impacted by the CTFFF by <b>31 December 2021</b>.</p>

<p><b>2.2.5</b> There are measures in place to avoid impact on threatened ecological communities.</p>	<p><b>Meets – mitigation strategy in place to avoid impact on threatened ecological communities</b></p> <p>There are no threatened ecological communities in the area of the fishery and the ERA for the fishery found no other ecological communities were at high risk from the fishery (<a href="#">Walton &amp; Jacobsen, 2019</a>).</p> <p>Current risk mitigation measures include limits on available fishing licences, spatial, temporal and gear restrictions, including mesh-size limits and a requirement for fishers to use TEDs when Otter Trawling. Notwithstanding, the ecological impacts associated with fishing in waters shallower than 20 fathoms must be assessed if this activity is to continue.</p>
<p><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.</p>	<p><b>Partially meets – risk mitigation measures are in place, but should consider all aspects of, and impacts on the fishery</b></p> <p>Although risks to bycatch species were identified as low in QDAF's ERA, the ERA did not consider the impacts of management changes such as the commencement of fishing in areas previously closed as part of the CTFFF's ecological risk mitigation strategy. There are also concerns regarding the accuracy of reporting of protected species interactions and no performance measures in place for the management of these interactions. These issues are expected to be addressed through improvements to data collection and validation and development of harvest and risk mitigation strategies under the Queensland Government's Sustainable Fisheries Strategy 2017-2027. The Department's proposed <b>conditions 1 and 2</b> on the Part 13 approval, and <b>conditions 4 and 5</b> on the Part 13A approval support these important actions and seek to ensure they will be completed by <b>31 December 2021</b>.</p>

**Objective 3** – The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally.

**Information requirements**

**2.3.1** Information appropriate for the analysis in 2.3.2 is collated and/or collected covering the fishery's impact on the ecosystem and environment generally.

**Does not meet – no data collection methods in place**

Although there is no ongoing information collected on the fishery's impact on the ecosystem or environment generally, QDAF found the ecological risks were low to intermediate ([Walton & Jacobsen, 2019](#)). QDAF's ERA did not consider the impacts of fishing in waters shallower than 20 fathoms which is being undertaken as part of a four-year trial. This is significant given the trial fishing areas were historically closed to fishing as an ecological risk mitigation measure for the CTFFF.

QDAF ERA reports states that if effort in the fishery increases significantly and or the management regime changes, the results of the ERA should be reviewed to determine if one or more of the ecological components need to be progressed to a more quantitative (Level 2) ERA. If this were to occur, the ERA states that the assessment would benefit from additional information on the composition of non-target species (bycatch and species of conservation concern) and the effectiveness of the Danish Seine and Otter Trawl fishing methods.

In lieu of any further ERA, QDAF has committed to address identified knowledge gaps through their Fisheries Queensland Monitoring and Research Plan.

The Department recommends that **conditions 1 and 2** be applied to the Part 13 approval and **conditions 4 and 5** be applied to the Part 13A approval to ensure there is reliable data collection, monitoring and risk mitigation for all protected species and communities impacted by the CTFFF.

**Assessment**

**2.3.2** 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.

1. Impacts on ecological communities

- Benthic communities
- Ecologically related, associated or dependent species
- Water column communities

2. Impacts on food chains

- Structure
- Productivity/flows

3. Impacts on the physical environment

- Physical habitat
- Water quality

**Partially meets – ERA completed but did not consider changes that potentially affect the fishery**

The recent ERA for the CTFFF found the CTFFF posed a low to intermediate risk to marine habitats and ecosystem processes ([Walton & Jacobsen, 2019](#)). The ERA did not consider the impacts of fishing in waters shallower than 20 fathoms which is being undertaken as part of a four-year trial.

Given concerns regarding impacts of trawling in these shallower nursery grounds, and the fact that these areas were previously closed to fishing by the CTFFF for ecological risk mitigation reasons, there should have been some consideration of these arrangements in the ERA, and that the ERA should be revised if fishing in those waters is to continue.

A separate ERA undertaken for the ECOT and River and Inshore Beam Trawl fisheries that operate in the same inshore areas found numerous ecological components, including bycatch and protected species at high risk from those fisheries ([Jacobsen et al. 2018](#)).

Key ecological features in the area of the CTFFF include the shelf rocky reefs and canyons on the eastern continental slope, and the upwelling off Fraser Island ([DAWR, 2012](#)). It is unlikely these features will be significantly impacted by the CTFFF as the target species, Stout Whiting, are targeted on flat, sandy bottom habitats which are considered more resilient to demersal trawling. The risk to marine habitats is also reduced by the small number of vessels operating in the fishery ([Walton & Jacobsen, 2019](#)).

QDAF report that if effort in the fishery increases significantly and/or the management regime changes, the results of the ERA should be reviewed to determine if one or more of the ecological components need to be progressed to a more quantitative (Level 2) ERA. If this were to occur, QDAF note that the assessment would benefit from additional information on the composition of non-target species (bycatch and species of conservation concern) and the effectiveness of the two fishing methods (Danish Seine and Otter Trawl).

In lieu of any further ERA, QDAF has committed to progress identified knowledge gaps through their Fisheries Queensland Monitoring and Research Plan. QDAF intends to apply for assessment of the trial area in mid-2020. The Department recommends this application include an ERA that considers the impacts associated with the trial and broader CTFFF.

The Department recommends that **conditions 1 and 2** be applied to the Part 13 approval and **conditions 4 and 5** be applied to the Part 13A approval to ensure there is reliable data collection, monitoring and risk mitigation for all ecosystem components impacted by the CTFFF.

<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>Meets – Management actions in place</b></p> <p>The fishery includes a range of input and output controls designed to manage ecological impacts. The risk to marine habitats is also relatively low given the small number of vessels operating in the fishery and the capacity to monitor and enforce spatial management arrangements through Vessel Tracking (<a href="#">Walton &amp; Jacobsen, 2019</a>).</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>Does not meet – No performance measures implemented</b></p> <p>There is no monitoring of ecological impacts, no indicators, triggers or decision rules to guide management of ecological risk in the fishery.</p> <p>While these are valuable management tools for fisheries, the current quota-based management arrangements are likely to be sufficient, at least until a harvest strategy is implemented.</p>

**2.3.5** The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.

**Partially meets – Medium chance**

The fishing methods used in the CTFFF have a high degree of contact with the seabed and the benthic communities which inhabit them. This increases the risk that biogenic structures and shallow benthic infauna will be removed, dislodged, or damaged ([Walton & Jacobsen, 2019](#)). The risks associated with these impacts are offset to some extent by spatial controls which restrict fishing to areas with a long history of trawl fishing. This is because these areas are thought to have already experienced changes in flora and fauna assemblages and therefore be more resilient to this type of disturbance ([Walton & Jacobsen, 2019](#)). Inshore areas previously closed to fishing by the CTFFF are fished by other fisheries including the ECOT and so could be considered to have already undergone these changes.

The inshore areas fished under trial arrangements were not considered in the ERA for the CTFFF. Given the concerns regarding impacts of trawling in these shallower nursery grounds, and the fact that these areas were closed to fishing by the CTFFF for ecological risk mitigation reasons, there should have been some consideration of these arrangements in the ERA.

The direct (e.g. trawling new ground) and indirect (e.g. smothering, increase sedimentation) impacts of trawl fishing may be more significant for habitats located on the periphery of the trawl grounds. Given the footprint of CTFFF effort and the use of spatial and temporal closures to help offset the overall level of risk, the risk level was determined to be low to intermediate ([Walton & Jacobsen, 2019](#)).

The ERA for the CTFFF also found that risks to ecosystem processes associated with the removal of product from the system, discarding of non-target species, and impacts on offshore habitats were likely to be localised and relatively minor, given the small number of vessels operating in the fishery (up to five vessels, [Walton & Jacobsen, 2019](#)). Overall, the measures in the CTFFF are likely to be effective, but that future ERAs should consider all aspects of, and influences on the CTFFF.

The Department recommends that **conditions 1 and 2** be applied to the Part 13 approval and **conditions 4 and 5** be applied to the Part 13A approval to ensure there is reliable data collection, monitoring and risk mitigation for all ecosystem components impacted by the CTFFF.



## SECTION 4: ASSESSMENT AGAINST 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 considered in the formulation of advice on the fishery in relation to decisions under Part 13 and Part 13A.

### Part 12 – Identifying and monitoring biodiversity and making bioregional plans

Section 176 Bioregional Plans	Comment
(5) Minister must have regard to relevant bioregional plans	<p><b>Meets</b></p> <p>The <a href="#">Marine bioregional plan for the Temperate East Marine Region 2012</a> has been considered in preparing advice in relation to decisions under section 303DC and section 303FN. The bioregional plan identified four key ecological features present in the area of the fishery. These are shelf rocky reefs, the canyons on the eastern continental slope, the Tasmanid seamount chain and the upwelling off Fraser Island.</p> <p>Extraction of living resources, bycatch and physical modification of habitat by trawling were identified as pressures of potential concern within the marine region in which the fishery operates. Although demersal trawling has a high potential for benthic disturbance and bycatch, this fishery does not operate near these features and instead targets flat, soft (sand and silt) bottomed habitats which are thought to be more resilient to demersal trawling. The risk to marine habitats is also moderated by the relatively small number of vessels operating in the fishery (maximum five) and the enforcement of spatial management and use of Vessel Monitoring Systems. The bioregional plan notes that its assessment is conservative in the context of active fisheries management, particularly when fisheries are managed at an ecosystem level, such as this fishery.</p> <p>In addition to the four key ecological features, the marine bioregional plan also identified biologically important areas for White Sharks (<i>Carcharodon carcharias</i>) and areas of distribution and known aggregation sites for Grey Nurse Sharks (<i>Carcharias taurus</i>) within the area of the fishery. There have been no reported interactions with White Sharks or Grey Nurse Sharks in the CTFFF, and fishing has been banned around all known aggregation sites for Grey Nurse Sharks since 2003.</p> <p>An action taken by an individual fisher, acting in accordance with the management regime for the CTFFF, is unlikely to have a significant impact on the key ecological features, biologically important areas or other matters identified in the Temperate East Marine Bioregional Plan. There is also unlikely to be any significant impact on the Coral Sea Marine Park given the location and nature of the fishing operations in the CTFFF (<a href="#">Walton &amp; Jacobsen, 2019</a>).</p>

## Part 13 – Species and communities

Accreditable plan, regime or policy (Divisions 1, 2, 3 and 4)	Comment
<p>Sections 208A(1)(a-e), 222A(1)(a-e), 245(1)(a-e) and 265(1)(a-e)</p> <p>Does the fishery have an accreditable plan of management, regime or policy?</p>	<p><b>Meets</b></p> <p>There is an accreditable management regime for the CTFFF outlined in the Queensland <i>Fisheries Act 1994</i>, Fisheries (General) Regulation 2019, Fisheries (Commercial Fisheries) Regulation 2019, Fisheries Declaration 2019, and the Fisheries Quota Declaration 2019.</p> <p>Management arrangements for the trial in waters shallower than 20 fathoms, are a combination of CTFFF arrangements and conditions specified on QDAF fishing permits. These trial arrangements are all publicly available but are not being considered as part of the CTFFF management regime at this time. QDAF has advised that they will apply for assessment of the trial arrangements separately, at which time the management regime for the CTFFF and trial will be reconsidered. QDAF has also advised that if the trial arrangements are to extend beyond the conclusion of the trial in September 2021, this will be done via an amendment to the legislated arrangements for the CTFFF.</p>
<p>Sections 208A (f) and (g), 222A (f) and (g), 245 (f) and (g) and 265 (f) and (g)</p>	<p><b>Partially meets</b></p> <p>QDAF has assessed the risks to listed threatened species, listed migratory species, cetaceans, and listed marine species and has determined that existing risk mitigation measures are sufficient (<a href="#">Walton &amp; Jacobsen, 2019</a>). The ERA for the CTFFF should consider all aspects of, and impacts on the fishery, including changes that may have occurred to existing risk management strategies (e.g. opening areas that were historically closed for risk mitigation purposes under trial arrangements). Noting also the concerns regarding the accuracy of reported interactions with protected species, data validation should be prioritised to ensure impacts can be accurately assessed, monitored and managed.</p> <p>Based on the available information, the current operation of the fishery is unlikely to adversely affect the survival or recovery in nature of a listed threatened species, the conservation status of a listed migratory species or a population of a listed migratory species, a cetacean species or a population of a cetacean species, or a listed marine species or a population of a listed marine species given the risk mitigation measures currently in place.</p> <p>This is supported by the ERA which found that risks to these species were low or negligible (<a href="#">Walton &amp; Jacobsen, 2019</a>). The Department recommends that data collection and validation be improved and that Part 13 <b>conditions 1 and 2</b> be applied to the Part 13 approval to ensure there is reliable data collection, monitoring and management of ecological risks in the CTFFF.</p>

Conditions regarding accreditation of plans, regimes and policies Section 303AA	Comment
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	The Department recommends that the management regime for the CTFFF ( <u>not</u> including the arrangements defined in QDAF permit conditions for the sub-20 fathom trial) be accredited under sections 208A, 222A, 245 and 265 of the EPBC Act.
(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: <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> In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	To satisfy the requirements of sections 208A, 222A, 245, and 265 of the EPBC Act, the Department recommends the CTFFF be accredited under Part 13 subject to a conditions that requires QDAF to ensure there is reliable data collection, monitoring and management of ecological risks in the CTFFF (refer to Part 13 <b>conditions 1 and 2</b> in Section 2 of this report).

## Part 13A – International movement of wildlife specimens

Section 303BA Objects of Part 13A	Comment
<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>	<p>The management arrangements for the CTFFF have been assessed and found to be consistent with the general guidance provided in the objects of Part 13A as:</p> <ul style="list-style-type: none"> <li>• the fishery will not harvest any Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) listed species</li> <li>• there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way</li> <li>• the operation of the fishery is unlikely to be unsustainable and threaten biodiversity within the next three years, and</li> <li>• the Environment Protection and Biodiversity Conservation Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.</li> </ul> <p>The Department recommends that <b>conditions 1-6</b> be applied to the Part 13A approval to ensure the objectives continue to be met.</p>
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><b>Not applicable.</b> The CTFFF does not harvest any CITES-listed species.</p>

<p>(a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to:</p> <p>(i) the survival of any taxon to which the specimen belongs; or</p> <p>(ii) the recovery in nature of any taxon to which the specimen belongs; or</p> <p>(iii) any relevant ecosystem (for example, detriment to habitat or biodiversity); and</p>	
Section 303DC Minister may amend list (non CITES species)	Comment
<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 that are, or are derived from, fish or invertebrates harvested in the Queensland CTFFF, as defined in the management regime in force under the Queensland Fisheries Act 1994, Fisheries (General) Regulation 2019, Fisheries (Commercial Fisheries) Regulation 2019, Fisheries Declaration 2019, and the Fisheries Quota Declaration 2019, but not including:</p> <ul style="list-style-type: none"> <li>• specimens that belong to taxa listed under section 209 of the EPBC Act (Australia's list of migratory species), or</li> <li>• specimens that belong to taxa listed under section 248 of the EPBC Act (Australia's list of marine species), or</li> <li>• specimens that belong to eligible listed threatened species, as defined under section 303BC of the EPBC Act, or</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 CTFFF 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 any assessment under Part 10, Divisions 1 or 2.</p>	<p><b>Not applicable</b></p> <p>There has been no request or agreement to assess the fishery under Part 10 Division 1, and the fishery is not managed by the Commonwealth, so Part 10, Division 2 does not apply.</p>
<p>(1C) The above does not limit matters that may be considered when deciding to amend the LENS.</p>	<p><b>Meets</b></p> <p>Although there is no strategic assessment under Part 10 of the EPBC Act, the Department's assessment has considered all matters relevant to making an informed decision to amend the list of exempt native specimens to include product taken in this fishery.</p>
<p>(3) Before amending the LENS, the Minister must consult:</p> <ul style="list-style-type: none"> <li>(a) other Minister or Ministers as appropriate; and</li> <li>(b) other Minister or Ministers of each State and self-governing Territory as appropriate; and</li> <li>(c) other persons and organisations as appropriate.</li> </ul>	<p><b>Meets</b></p> <p>The submission from QDAF was made available on the Department's website from 20 December 2019 to 31 January 2020.</p> <p>Two public submissions were received which raised concerns regarding:</p> <ul style="list-style-type: none"> <li>• Potential impacts of the fishery on the adjacent Coral Sea Marine Park, its habitats, species and ecology.</li> <li>• The extent that ecological risks had been assessed given the limited bycatch data available, the extent of bycatch reporting and measures to minimise the potential impacts of the fishery on migratory and transitory species in the Coral Sea Marine Park.</li> <li>• Potential risks to larger-bodied protected species, associated with fishing with Danish Seine gear, given there is no requirement for Turtle Excluder Devices to be used with that gear.</li> <li>• Potential competition and cumulative impacts associated with commercial and non-commercial fishing sectors, particularly as the fishery extends into shallower, inshore waters under trial arrangements.</li> </ul> <p>These matters have been considered throughout the assessment and either been addressed by QDAF already (e.g. via the ERA process) or are proposed to be addressed via conditions on Part 13 and 13A approvals (refer to Section 2 for a full list of proposed conditions).</p>
<p><b>Section 303FN Approved wildlife trade operation</b></p>	<p><b>Comment</b></p>

<p>(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is <b>satisfied</b> that:</p> <p>(a) the operation is consistent with the objects of Part 13A of the Act; and</p> <p>(b) the operation will not be detrimental to:</p> <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 is consistent with Objects of 13A – see above assessment against the Guidelines. Based on the outcomes of the Department’s assessment, as outlined in this report, the fishery will not be detrimental to the survival or conservation status of a taxa to which it relates, nor will it threaten any relevant ecosystem, within the next three years, given the management measures currently in place and the conditions recommended in Section 2 of this assessment.</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 fishery will not have a significant impact on any relevant ecosystem within the next three years, given the management measures currently in place and the conditions recommended in Section 2 of this assessment.</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 CTFFF as outlined in the assessment against the Guidelines (above), 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>Management arrangements for the fishery are defined in the Queensland <i>Fisheries Act 1994</i>, Fisheries (General) Regulation 2019, Fisheries (Commercial Fisheries) Regulation 2019, Fisheries Declaration 2019, and the Fisheries Quota Declaration 2019. This legislation applies to all Queensland-managed waters.</p> <p>Based on available information the management arrangements are 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</p>	<p><b>Meets</b></p> <p>The CTFFF is a commercial fishery.</p>



<p>operation is an operation for the taking of specimens and:</p> <p>(a) the operation 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>(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>Not applicable</b></p> <p>There has been no request or agreement to assess the fishery under Part 10 Division 1, and the fishery is not managed by the Commonwealth, so Part 10 Division 2 does not apply.</p>

Section 303FR Public consultation	Comment
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <ul style="list-style-type: none"> <li>(a) setting out the proposal to make the declaration; and</li> <li>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</li> <li>(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.</li> </ul> <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>(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>Meets</b></p> <p>A public notice which included QDAF's application and set out the proposal to declare the CTFFF to be an approved wildlife trade operation was released for public comment from 20 December 2019 to 31 January 2020, a total of 24 business days (excluding all state, territory and national public holidays). Two public submissions were received which raised concerns regarding:</p> <ul style="list-style-type: none"> <li>• Potential impacts of the fishery on the adjacent Coral Sea Marine Park, it's habitats, species and ecology.</li> <li>• The extent that ecological risks had been assessed given the limited bycatch data available, the extent of bycatch reporting and measures to minimise the potential impacts of the fishery on migratory and transitory species in the Coral Sea Marine Park.</li> <li>• Potential risks to larger-bodied protected species, associated with fishing with Danish Seine gear, given there is no requirement for Turtle Excluder Devices to be used with that gear.</li> <li>• Potential competition and cumulative impacts associated with commercial and non-commercial fishing sectors, particularly as the fishery extends into shallower, inshore waters under trial arrangements.</li> </ul> <p>Copies of the public submissions and QDAFs response to the issues raised in these submissions will be provided to the decision maker with this assessment report.</p> <p>The public comments and QDAF's response were considered in this assessment and in development of the conditions recommended at Section 2.</p>

## Part 16 – Precautionary principle and other considerations in making decisions

Section 391 Minister must consider precautionary principle in making decisions	Comment
<p>(1) Minister must take account of the precautionary principle in making a decision, to the extent that the decision is consistent with other provisions under this Act.</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>The assessment has identified a range of issues that require attention by QDAF. The conditions proposed for inclusion on Part 13 and 13A approvals are designed to address these issues and represent a precautionary approach to the management of environmental uncertainty and risk. The management regime, when supported by these conditions should be enough to prevent serious or irreversible environmental damage being caused by this fishery.</p>

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