



Australian Government

Department of the Environment and Energy

Assessment of the
Queensland East Coast Inshore Fin Fish Fishery

November 2018

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Disclaimer

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

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EXECUTIVE SUMMARY OF THE ASSESSMENT OF THE QUEENSLAND EAST COAST INSHORE FIN FISH FISHERY

In July 2018, The Queensland Department of Agriculture and Fisheries (QDAF) applied to the Department of the Environment and Energy (the Department), for assessment of the East Coast Inshore Fin Fish Fishery (the fishery) as an approved wildlife trade operation under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). A public comment period was open from 6 July 2018 until 13 August 2018.

The fishery

The fishery includes tidal waters along Queensland's east coast and extends eastward to the boundary agreed under the Offshore Constitutional Settlement (OCS). The area of the fishery includes the Great Barrier Reef Marine Park and Great Barrier Reef World Heritage Area. The fishery is large and complex targeting a wide variety of fin fish and shark species predominantly with net fishing methods, but also with hook and line methods. The fishery is managed using various input and output controls including limited entry, licensing symbols to limit gear and take of sharks and rays, seasonal area closures, total allowable catch limits and possession limits on certain species.

Target stocks

Target species are regularly assessed to determine stock status and to inform QDAF's management of key species in the fishery. A number of target species and species groups in the fishery are currently classified as undefined. These include: Black Jewfish, Blacktip Shark species, Blue Threadfin, Garfish species, Javelin species, Mangrove Jack, Mulloway, Queenfish species, Sandbar Shark, Silver and other Trevally species, Swallowtail and other Dart species. QDAF is engaged in activities to reduce the number of undefined stocks.

Where a species does not have a stock assessment or has an undefined status, QDAF uses other methods, such as analysing catch trend data, to detect and respond to concerns. These measures are expected to be further built upon through the development of a harvest strategy for the fishery.

Non-target (bycatch and byproduct) stocks

While significant effort is invested in assessing and managing many of the target species, management of non-target species (byproduct and bycatch) requires further development. For example, although not considered a target species and caught in relatively low volumes compared to other fisheries, Snapper (*Chrysophrys auratus*) is classified as overfished in the area of the fishery ([FRDC, 2016](#)). Given the ongoing risks to snapper stocks in Queensland waters the Department considers it important that all fisheries that impact on the stock ensure their arrangements are sufficient to avoid further stock decline and aid recovery of the stock.

The Department considers that in all cases stocks must be managed to ensure they remain sustainable, not overfished or subject to overfishing.

Protected Species (including CITES-listed species) and ecosystems

The fishery is known to interact with turtles, whales and dolphins, Dugong, sawfish, manta and devil-rays, crocodiles, seahorses, birds (cormorants, pelicans and terns), Great White Sharks and sea-snakes. Fishers are required to report all interactions with protected species in their fishery logbooks; however, there have been allegations that these interactions are not being reported. This is based on higher rates of interactions that were reported when independent observers were on board (observer program ceased in 2012), and reports of high numbers of marine mammals found dead in areas where fishing effort is highest. The Department considers it is important that there is confidence in the accuracy and reliability of fishery data used to manage ecological sustainability.

The ongoing harvest of CITES listed Hammerhead shark species is considered within the levels set by the 2014 non-detriment finding, made by the CITES Scientific Authority.

The nature and restrictions placed on the fishing gear used in the fishery (net and line) ensures minimal contact with the seabed and associated habitat. Impacts on seabed communities and ecosystem structures are therefore likely to be negligible. The removal of high order predators (such as sharks, barramundi and mackerel) can potentially impact food webs and species assemblages. While these impacts have not been quantified for the fishery through a formal ecological risk assessment, management of the fishery aims to ensure that sustainable populations of target species are maintained. QDAF is developing an ecological risk assessment to consider risks to all species (target, byproduct, bycatch) and ecosystems for the fishery and its completion is anticipated mid to late 2019.

Conclusion

The Department recognises that major reforms are underway as part of the Queensland Government's Sustainable Fisheries Strategy 2017–2027. These reforms are expected to significantly improve the management of the fishery and address many of the issues identified in the Department's assessment. This includes providing a more strategic management framework and greater means to collect and validate important fishery data, greater enforcement capacity, and better assessment and management of fishery performance to ensure ecological risks are managed effectively. These important reforms are reflected in conditions associated with the proposed approvals, at Section 4 of this report and include:

- a. Improve data collection, validation and monitoring of species caught in the fishery
- b. Improve the management of sharks, including implementing the Threatened Species Scientific Committee's recommendations for the recovery of the Conservation Dependent listed Scalloped Hammerhead Shark
- c. Continue to improve the understanding of the status of all commercially and recreationally important species in the fishery
- d. Finalise and implement ecological risk assessments and harvest strategies to assess the fishery's impact on target and non-target species, including protected species, and implement those measures to mitigate the ecological risks in the fishery.

Based on the Department's assessment of the application against the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition', the Department recommends that the fishery be granted export approval for three years until 11 January 2019, by declaring the fishery an approved wildlife trade operation and amending the list of exempt native specimens under the EPBC Act.

The Department also considers that the existing accreditation of the management regime for the fishery, granted under Part 13 of the EPBC Act on 14 September 2016 remains valid.

SECTION 1: ASSESSMENT SUMMARY OF THE QUEENSLAND EAST COAST INSHORE FIN FISH FISHERY AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION), CONSISTENT WITH THE EPBC ACT

Guidelines assessment	Meets	Partially meets	Does not meet	Details
Management regime	3 of 9	2 of 9	4 of 9	There is no strategic framework for assessing, monitoring or managing fishery performance and ecological impacts. Although some risk mitigation measures for protected species are included in the management regime, there is no explicit link between the regime and existing threat abatement plans, bycatch management policies or plans. These issues are expected to be resolved through delivery of commitments reflected in conditions 4, 5 and 9 at Section 4 of this report.
Principle 1 (target stocks)	0 of 11	9 of 11	2 of 11	There is no precautionary risk management strategy to support the recovery of overfished stocks, caught as byproduct or bycatch in the fishery. These issues are expected to be resolved through delivery of commitments reflected in conditions 4 – 9 inclusive at Section 4 of this report.
Principle 2 (bycatch and TEPS)	0 of 12 (2 N/A)	6 of 12	4 of 12	There is no risk analysis for bycatch or protected species and no means to confidently detect, or respond to emerging risks or issues. These issues are expected to be resolved through delivery of commitments reflected in conditions 4 – 9 inclusive) at Section 4 of this report.
Principle 2 (ecosystem impacts)	0 of 5	3 of 5	2 of 5	Although some information is collected via fishery logbooks to enable risks to certain target species to be assessed, there is no program to collect or assess information on broader ecological impacts associated with the fishery. This is expected to be resolved through delivery of commitments reflected in conditions 4, 5, 8 and 9 at Section 4 of this report.
EPBC requirements				
Part 12	Meets requirements subject to conditions specified at Section 4 of this report.			
Part 13	Meets requirements subject to conditions specified at Section 4 of this report.			
Part 13A	Meets requirements subject to conditions specified at Section 4 of this report.			
Part 16	Partially meets requirements. Many of the arrangements are precautionary but further progress is required to address uncertainty around status of some stocks, impacts of localised fishing effort, and accuracy of reported data. Conditions recommended in section 4 of this assessment seek to address these issues.			

Key Links

Assessment history:

1. 28 November 2005: Approval until 31 May 2006 subject to five conditions.
2. 25 February 2009: Approval until 28 February 2012 subject to 18 conditions.
3. 23 February 2012: Approval until 27 February 2015 subject to 10 conditions and 11 recommendations.
4. 23 February 2015: Approved until 1 October 2015 subject to 10 conditions and one recommendation.
Approval extended (September 2016) until 28 September 2018 to account for new management arrangements for hammerhead sharks.
5. 26 September 2018: Approved until 14 December 2018 subject to 9 conditions.
6. 10 December 2018: Approved until 28 February 2019 subject to 9 conditions.

More information on assessments, approvals and the QDAF application for assessment are at: <http://www.environment.gov.au/marine/fisheries/qld/east-coast-fin-fish>

Fishery research and reporting:

- Annual fishery status reports: <https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-our-fisheries/commercial-fisheries/data-reports/sustainability-reporting/queensland-fisheries-summary/east-coast-inshore-fin-fish-fishery>
- Australian Government Great Barrier Reef Marine Park Authority, 2014. Great Barrier Reef Outlook Report 2014, GBRMPA, Townsville. <http://www.gbrmpa.gov.au/managing-the-reef/great-barrier-reef-outlook-report>.
- Fish Stock Assessment Reports: <https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-our-fisheries/commercial-fisheries/data-reports/sustainability-reporting/stock-assessment-reports>
- Fisheries Research and Development Corporation (FRDC) Status of Key Australian Fish Stocks: <http://www.fish.gov.au/Reports>.
- Halliday, I., Ley, J., Tobin, A., Garrett, R., Gribble, N., and Mayer, D., 2001. The Effects of Net Fishing: Addressing Biodiversity and Bycatch Issues in Queensland Inshore Waters. http://fish.gov.au/2012/reports/Documents/Halliday_et_al_2001_Effects_of_net_fishing_FRDC_97_206.pdf.
- Leigh, G.M., 2015. Stock assessment of whaler and hammerhead sharks (Carcharhinidae and Sphyrnidae) in Queensland. Technical Report. Queensland Department of Agriculture and Fisheries. <https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-our-fisheries/commercial-fisheries/data-reports/sustainability-reporting/stock-assessment-reports/stock-assessment-of-whaler-and-hammerhead-sharks-carcharhinidae-and-sphyrnidae-in-queensland>.
- Queensland Government Department of Agriculture and Fisheries. Queensland Fisheries Summary Report – East Coast Inshore Fin Fish Fishery: <https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-our-fisheries/commercial-fisheries/data-reports/sustainability-reporting/queensland-fisheries-summary/east-coast-inshore-fin-fish-fishery>
- Queensland Government Department of Agriculture and Fisheries Stock Status Assessments: <https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-our-fisheries/commercial-fisheries/data-reports/sustainability-reporting/stock-assessment-reports/stock-status-assessments>

[fisheries/data-reports/sustainability-reporting/stock-status-assessments/queensland-stock-status-results](#)

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Legislation, Plans and Guidelines:

- Australian Government Department of the Environment and Energy, 2012. Marine bioregional plan for the Temperate East Marine Region.
<http://www.environment.gov.au/topics/marine/marine-bioregional-plans/temperate-east>.
- Australian Government Department of the Environment and Energy, 2007. Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition.
<http://www.environment.gov.au/marine/publications/guidelines-ecologically-sustainable-management-fisheries>.
- *Great Barrier Reef Marine Park Act 1975*:
<https://www.legislation.gov.au/Details/C2018C00076>
- Great Barrier Reef Marine Park Regulations 1983:
<https://www.legislation.gov.au/Details/F2018C00182>
- *Queensland Fisheries Act 1994*:
<https://www.legislation.qld.gov.au/view/html/inforce/current/act-1994-037>
- Queensland Fisheries Regulation 2008:
<https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2008-0083>
- Queensland Government Department of Agriculture and Fisheries. Sustainable Fisheries Strategy 2017–2027:
<https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable-fisheries-strategy>.
- *Queensland Marine Parks Act 1982*:
<https://www.legislation.qld.gov.au/view/pdf/repealed/current/act-1982-007/lh>
- *Queensland Nature Conservation Act 1992*:
<https://www.legislation.qld.gov.au/view/html/inforce/current/act-1992-020>
- Harvest strategy framework (not yet completed for this fishery):
<https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable-fisheries-strategy/harvest-strategy>
- Ecological Risk Assessments (not yet completed for this fishery):
<https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable-fisheries-strategy/ecological-risk-assessment-guidelines>

SECTION 2: DETAILED ANALYSIS OF THE QUEENSLAND EAST COAST INSHORE FIN FISH FISHERY AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION)

Guidelines criteria	Comment
THE MANAGEMENT REGIME	
The management regime does not have to be a formal statutory fishery management plan as such, and may include non-statutory management arrangements or management policies and programs. The regime should:	
Be documented, publicly available and transparent.	<p>Meets</p> <p>The Queensland East Coast Inshore Fin Fish Fishery is managed by the Queensland Department of Agriculture and Fisheries (QDAF) in accordance with the Queensland <i>Fisheries Act 1994</i> and <i>Fisheries Regulation 2008</i>. This legislation can be found at www.legislation.qld.gov.au.</p> <p>An overview of the fishery's management arrangements is available in annual reports (last published 2009) and recent management changes as well as catch summaries are available on the QDAF website (last updated 5 October 2017).</p> <p>The East Coast Inshore Working Group provides operational advice in relation to this fishery. Terms of reference for the working group, it's members, and communiques are published on the QDAF website.</p>
Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public.	<p>Meets</p> <p>Management arrangements are developed in consultation with a range of stakeholders. Consultation involves publication of discussion papers, public consultation and regular meeting of the East Coast Inshore Working Group.</p>
Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process.	<p>Meets</p> <p>The East Coast Inshore Working Group includes stakeholders from commercial, recreational and charter fishing, conservationists, research, seafood marketing and other government sectors. The group provides advice on operational aspects of the fishery and assists with the development of management options.</p>
Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured.	<p>Does not meet</p> <p>There is currently no process in place for reviewing management performance. A 'performance measurement system' was used in the ECIFFF but is no longer in effect.</p> <p>The Queensland Government released the Sustainable Fisheries Strategy in June 2017 outlining a number of actions to reform Queensland fisheries, with the ECIFFF identified as a priority. A harvest strategy is being developed for the fishery, which is expected to contain strategic objectives and performance criteria by which the effectiveness of the management arrangements can be measured. This is expected to be finalised by December 2019 and implemented for the 2020 fishing season (starting on 1 January 2020).</p>

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

Partially meets

The fishery includes a range of input controls as well as output controls applied to certain species or groups of species.

Total allowable commercial catch (TACC) limits are competitive (not individually allocated).

The fishery includes commercial, recreational (including charter), and Indigenous fishing sectors.

All sectors are subject to spatial and temporal closures, minimum and maximum size limits and no-take species.

The commercial sector is managed through limits on numbers of licences, spatial and temporal closures, minimum and maximum size limits and no-take species, gear restrictions (types of gear and restrictions on where certain gear types can be used), regulated no-take waters and net free zones, boat length restrictions, requirements to attend nets during fishing, and annual competitive total allowable commercial catch limits (TACC) for some species.

A 600 tonne TACC applies to all shark and ray species. This is split between different areas of the fishery, but with the exception of the hammerhead sharks complex, is not applied to any particular species or species group. This means that fishing effort could be focussed on any number of species. The Department expects that the ecological risk assessments being undertaken for the fishery will determine whether any finer-scale reporting and management is required within this group.

A TACC also applies to Grey Mackerel (250 t), Spotted Mackerel (140 t) and Tailor (120 t).

Commercial fishers are required to submit logbook records of their catches; this provides QDAF with the means to monitor and then control fishing activity in the commercial sector. Commercial net fishers targeting sharks are required to report catch via an Automated Integrated Voice Response (AIVR) system (introduced 2018). There is no requirement for fishers to report catches of Grey Mackerel, Spotted Mackerel or Tailor via the AIVR system however.

The harvest strategy currently being developed for the fishery is expected to account for all sources of mortality (commercial, recreational including charter and indigenous) in managing the fishery.

<p>Contain the means of enforcing critical aspects of the management arrangements.</p>	<p>Partially meets</p> <p>The scale and complexity of the fishery presents a significant challenge for compliance enforcement. QDAF uses a fishery Compliance Risk Assessment framework to develop state and regional operational plans to deliver its compliance program. An overview of this program is available on the QDAF website.</p> <p>There have been allegations that protected species interactions are not being reported in logbooks. This is based on significantly higher rates of interactions that were reported when independent observers were on board (observer program ceased in 2012), and reports of high numbers of marine mammals found dead in areas where fishing effort is highest. The Department considers it is important that there is confidence in the accuracy and reliability of fishery data used to manage ecological sustainability.</p> <p>For the majority of species, there is no requirement to record commercial catches prior to unloading. Given commercial fishing vessels in this fishery are not yet required to have Vessel Tracking, this is likely to make enforcement of catch and other controls difficult.</p> <p>Hammerhead sharks are subject to catch limits and are allowed to be processed at sea up until 75 per cent of the retained catch limit is reached. Once this amount has been registered, fishers are required to land sharks with fins attached to aid species identification. This approach assumes there is no incentive to misreport catches. However it is arguable that misreporting could avoid trigger or catch limits ever being imposed, undermining their effectiveness. Other Australian fisheries require sharks to be landed with fins naturally attached to help manage this risk. Measures are likely to be required to ensure catch of hammerhead sharks are accurately reported.</p> <p>The proposed changes including, introduction of Vessel Tracking on all commercial fishing boats in the ECIFFF from 1 January 2019, independent data collection and validation program (such as electronic monitoring) from 1 January 2020, catch disposal for collection and validation of accurate retained catch data, forensic auditing and cross checking of data are all likely to improve QDAF's enforcement capability.</p> <p>Additional measures, such as the Fisheries (Sustainable Fisheries Strategy) Amendment Bill (introduced into Parliament on 4 September 2018) are also being undertaken by the Queensland Government to strengthen QDAF's compliance and enforcement powers.</p>
<p>Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria.</p>	<p>Does not meet</p> <p>While catch and other information is periodically assessed by QDAF, there is no formal process for monitoring or managing fishery performance.</p> <p>A harvest strategy is being developed for the fishery, which is expected to contain strategic objectives and performance criteria by which the effectiveness of the management arrangements can be measured. This is expected to be implemented by January 2020.</p>

<p>Be capable of assessing, monitoring and avoiding, remedying or mitigating any adverse impacts on the wider marine ecosystem in which the target species lives and the fishery operates.</p>	<p>Does not meet</p> <p>There is currently no ecological risk assessment or other arrangement to guide management of ecological risk in the fishery. QDAF is undertaking a series of ecological risk assessments to guide ecological risk management in the fishery. A draft level 1 assessment is expected to be completed by December 2018. This risk assessment will be discussed with the East Coast Inshore working group and the expert panel that oversees implementation of the Sustainable Fisheries Strategy. Risks identified in the level 1 assessment will then be refined through a series of level 2 assessments for species of conservation concern (including protected species and identified shark species), target, byproduct and bycatch species over the next three years (2018–2021).</p> <p>The Department considers it important that risks be identified and managed in a precautionary way as soon as possible. Ongoing assessment, monitoring and management of risk will also depend on having quality information. Given concerns about significant misreporting of protected species interactions, a system to ensure robust information is available must also be implemented.</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>Does not meet</p> <p>The management arrangements do not explicitly require fishers to comply with relevant threat abatement plans, recovery plans, the National Policy on Fisheries Bycatch, and bycatch action strategies developed under the policy.</p> <p>QDAF have advised management arrangements are in place for Great White Sharks, Grey Nurse Sharks, sawfish and speartooth sharks which are all listed as no take species. Mandatory species of conservation interest (SOC1) reporting is also required for these species.</p> <p>Relevant threat abatement and recovery plans may include the:</p> <ul style="list-style-type: none"> • Threat Abatement Plan for the impacts of marine debris on the vertebrate wildlife of Australia's coasts and oceans • Conservation Management Plan for the Blue Whale - A Recovery Plan under the Environment Protection and Biodiversity Conservation Act 1999 • Conservation Management Plan for the Southern Right Whale. A Recovery Plan under the Environment Protection and Biodiversity Conservation Act 1999 2011-2021 • Gould's Petrel (<i>Pterodroma leucoptera leucoptera</i>) Recovery Plan • Recovery Plan for Marine Turtles in Australia • Recovery Plan for the Grey Nurse Shark (<i>Carcharias taurus</i>) • Recovery Plan for the White Shark (<i>Carcharodon carcharias</i>) • Sawfish and River Sharks Multispecies Recovery Plan

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.

Partially meets

Commercial (and offshore charter) fishers are required to report their retained catch, discarded catch of certain shark species, and fishing effort data through their logbooks. There is however no requirement to complete this data prior to landing or unloading for any species other than sharks (including hammerhead sharks). This increases the potential for misreporting unless a compliance officer is present for inspection. Concerns have also been raised by some stakeholders over potential misreporting, particularly with regard to protected species interaction reporting.

For shark species, including hammerhead sharks, fishers must also report their catch through Fisheries Queensland's automated interactive voice response (AIVR) system. There is no requirement for other species subject to total allowable catch limits (Spotted Mackerel, Grey Mackerel or Tailor) to be reported via the AIVR system however. QDAF are reviewing their reporting and data validation processes as part of the Sustainable Fisheries Strategy with a view to improving the reliability of their data collection program.

QDAF ceased it's on-board observer program in 2012 and has advised that most ECIFFF boats are less than eight meters long, and can therefore refuse an observer due to crewing requirements under Australian Maritime Safety Authority legislation. Larger boats can also refuse to carry an observer on occupational health and safety grounds. There is no independent data collection or validation undertaken in the fishery.

QDAF is investigating the use of electronic monitoring as a means of providing fisher independent data as part of its Sustainable Fisheries Strategy. Electronic monitoring has been shown to significantly improve the quality and reliability of fisher-dependent data in other Australian fisheries and elsewhere in the world.

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

QDAF undertakes annual assessments of stock status to support its management of key species in the fishery. Stock status assessments are undertaken annually using protocols adopted by all jurisdictions in the Status of Australian Fish stocks Report. Outcomes are reported on the [QDAF website](#) and the Fisheries Research and Development Corporation, [Status of Australian Fish Stocks website](#).

The SAFS process follows a weight of evidence approach using all available data. If insufficient data are available to confidently classify a stock, the stock is reported as “undefined”. A number of target species and species groups in the ECIFFF are currently classified as undefined. These include: Black Jewfish, Blacktip Shark species, Blue Threadfin, Garfish species, Javelin species, Mangrove Jack, Mulloway, Queenfish species, Sandbar Shark, Silver and other Trevally species, Swallowtail and other Dart species. QDAF participate in the national SAFS Advisory Group convened by the FRDC, who have commenced projects designed to reduce the number of undefined stocks.

Where a species does not have a stock assessment or has an undefined status, QDAF uses other methods, such as analysing catch trend data, to detect and respond to concerns.

A stock assessment for whaler and hammerhead sharks was undertaken in 2015 but was constrained by problems with logbook data quality and the availability of information on discards. Catch limits were modelled on limited on-board scientific observer data collected between 2006 and 2012, prior to cessation of the observer program. The 2015 report states that future stock assessments would benefit from improved catch composition data and afford greater confidence in sustainable harvest limits ([Leigh, 2015](#)).

QDAF commenced a three-year research project in July 2017, to validate catch composition of shark species in net fisheries along the east coast as well as the Gulf of Carpentaria. This project aims to determine species catch composition of harvest by sampling at ports, processors or on-board/on-water. It also aims to develop a profile of discards, by including data gathered from random on-board observations.

Australia’s Threatened Species Scientific Committee, in its assessment of Scalloped Hammerhead Sharks for listing as threatened species, also noted that the Queensland Government is scheduled to review hammerhead stock status in 2019.

The Department acknowledges that work has commenced under the Queensland Government’s Sustainable Fisheries Strategy 2017–2027 to undertake regular stock assessments (annually or at least every two years) for key stocks to assess the stock status against the target and limit reference points which will be identified in the harvest strategy for the fishery.

The Department recognises that in some cases it may not be possible to determine stock status, however in all cases stocks must be managed to ensure they remain sustainable, not overfished or subject to overfishing.

While significant effort is invested in assessing and managing many of the target species, management of non-target species (byproduct and bycatch) requires further development.

<p>1.1.3 The distribution and spatial structure of the stock(s) has been established and factored into management responses.</p>	<p>Partially meets</p> <p>Distribution and spatial structure is considered in the stock assessments that are undertaken; however not all stocks are assessed (refer 1.1.2). In some cases total allowable catch limits have been recommended by stock assessors at a regional level (e.g. 100 t for grey mackerel in the north-east Queensland region), but are managed at a much broader level (250 t for the species across all Queensland waters). In the case of grey mackerel in north-east Queensland, catches in the region average well above the regional limit (118 t per annum since 2009–2010). However, as a whole the stock is classified as sustainable (FRDC, 2016). QDAF is considering six regional management zones but does not currently manage for localised depletion unless exceptional circumstances can be demonstrated.</p>
<p>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.</p>	<p>Partially meets</p> <p>The ECIFFF is Queensland's largest and most diverse fishery. It comprises significant commercial, recreational and charter sectors, as well as an Indigenous fishing sector.</p> <p>Information on the commercial catch is collected through logbooks but is focussed on target species. Discards are not reported, with the exception of certain shark and ray species. Information on the recreational sector is collected through periodic surveys (e.g. Statewide Recreational Fishing Survey 2013–14) and used to inform stock assessments.</p> <p>There are no recent or reliable estimates of Indigenous catch of ECIFFF species, however a recreational and Indigenous fishing survey in 2000–2001 (Henry and Lyle, 2003) suggested Indigenous harvest was likely to be low relative to other sectors.</p> <p>It is important that all sources of mortality are accounted for in setting total allowable catch for all sectors and subsequently managing the allowable catch for the commercial fishery.</p>
<p>1.1.5 There is a sound estimate of the potential productivity of the fished stock/s and the proportion that could be harvested.</p>	<p>Partially meets</p> <p>Potential productivity of stocks is considered in the stock assessments that are undertaken; however not all stocks are assessed (refer 1.1.2).</p> <p>Total allowable catch limits have been set for some species, while others are managed through other output and input controls. A 600 tonne competitive TACC applies to all shark and ray species. This is split between different areas of the fishery, but with the exception of the hammerhead sharks complex, is not applied to any particular species or species group.</p> <p>A TACC also applies to grey mackerel (250 t), spotted mackerel (140 t) and tailor (120 t).</p>
<p>Management responses</p>	
<p>1.1.6 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>Partially meets</p> <p>Competitive total allowable catch limits are applied to a limited number of species in the fishery. These limits are informed by stock assessments. Management triggers, based on a proportion of the total catch limit being reached are in place for tailor, spotted mackerel, grey mackerel, sharks, and hammerhead sharks within this broader shark group. Triggers are also being developed for Black Jewfish.</p> <p>The harvest strategy being developed for the fishery is expected to include target and limit reference points that will trigger management actions, including limits beyond which the stocks should not be taken. The harvest strategy is expected to be implementing for the 2020 fishing season (1 January 2020).</p>

<p>1.1.7 There are management strategies in place capable of controlling the level of take.</p>	<p>Partially meets</p> <p>The fishery includes a range of input controls as well as output controls applied to certain species or groups of species. Total allowable commercial catch (TACC) limits are competitive (not individually allocated).</p> <p>The fishery includes commercial, recreational (including charter), and Indigenous fishing sectors. All sectors are subject to spatial and temporal closures, minimum and maximum size limits and no-take species.</p> <p>The commercial sector is managed through limits on numbers of licences, spatial and temporal closures, minimum and maximum size limits and no-take species, gear restrictions (types of gear and restrictions on where certain gear types can be used), regulated no-take waters and net free zones, boat length restrictions, requirements to attend nets during fishing, and annual competitive total allowable commercial catch limits (TACC) for some species.</p> <p>A 600 tonne TACC applies to all shark and ray species. This is split between different areas of the fishery, but with the exception of the hammerhead sharks complex, is not applied to any particular species or species group. This means that fishing effort could be focussed on any number of species. The Department expects that the ecological risk assessments being undertaken for the fishery will determine whether any finer-scale reporting and management is required within this group.</p> <p>A TACC also applies to Grey Mackerel (250 t), Spotted Mackerel (140 t) and Tailor (120 t).</p> <p>Commercial fishers are required to submit logbook records of their catches; this provides QDAF with the means to monitor and then control fishing activity in the commercial sector. Commercial net fishers targeting sharks are required to report catch via an Automated Integrated Voice Response (AIVR) system (introduced 2018). There is no requirement for fishers to report catches of Grey Mackerel, Spotted Mackerel or Tailor via the AIRV system however.</p> <p>The harvest strategy currently being developed for the fishery is expected to account for all sources of mortality (commercial, recreational including charter and indigenous) in managing the fishery.</p>
<p>1.1.8 Fishing is conducted in a manner that does not threaten stocks of byproduct species.</p>	<p>Partially meets</p> <p>A wide range of species are caught by the fishery but information on the catch of non-target species is limited and stock assessments are undertaken for relatively few species.</p> <p>QDAF is undertaking ecological risk assessments to guide their management of ecological risk in the fishery. The first (level 1) assessment is due to be published in mid-late 2019 and is expected to inform the management of ecological risks through the harvest strategy.</p> <p>The harvest strategy is expected to be finalised by December 2019 and implemented for the 2020 fishing season. While the harvest strategy will likely focus on key target species, it will also include management arrangements for other species, including byproduct species through a tiered monitoring and management approach.</p> <p>With appropriate data collection, data monitoring and enforcement, these measures should ensure all stocks remain sustainable. Conditions proposed in Section 4 of this assessment report are designed to address this requirement.</p>
<p>(Guidelines 1.1.1 to 1.1.7 should be applied to byproduct species to an appropriate level)</p>	
<p>1.1.9 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Partially meets</p> <p>The fishery is likely to maintain ecologically viable stock levels under current management arrangements; however improvements scheduled as part of the Queensland government's Sustainable Fisheries Strategy will improve confidence in these measures.</p>

If overfished, go to Objective 2:

If not overfished, go to PRINCIPLE 2:

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.

Does not meet

QDAF has advised that there are no species currently targeted in the fishery that are classified as overfished. Snapper (*Chrysophrys auratus*) is classified as overfished in the area of the fishery. Although a small proportion of the total Queensland Snapper catch is taken in the ECIFFF, this species is not considered a target species in the ECIFFF and is therefore not managed for in the ECIFFF. Snapper are managed through arrangements in fisheries where they are targeted. Despite declines in active commercial fishing licenses and fishing effort days, estimates of fishing mortality remain high (in 2015 they were reported to be the highest in nine years). Despite protection of Snapper through a variety of mechanisms that aim to reduce fishing mortality, data suggests the current level of fishing pressure is too high to allow the Queensland component of the East coast Snapper stock to recover from being recruitment overfished ([FRDC, 2016](#)). Given the ongoing risks to snapper stocks in Queensland waters the Department considers it important that all fisheries that impact on the stock ensure their arrangements are sufficient to avoid further stock decline and aid recovery of the stock. The Department expects that all species will be assessed and managed according to risks identified in the ecological risk assessments for the fishery.

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.

Does not meet

Although Snapper are not targeted in the ECIFFF, there are no recovery strategies to manage impacts associated with the fishery or support the recovery of the stock.

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.

Partially meets

Data is collected primarily from commercial fishing logbooks. These logbooks provide for reporting of target species, but bycatch is (with the exception of certain shark and ray species) not required to be reported by QDAF.

Despite QDAF publishing a number of identification guides for fishers, catches are often not reported to species level.

There is very little fishery-independent data collection (e.g. no on-board observer program since 2012, no vessel monitoring systems, no electronic monitoring and no independent stock surveys), however the Department acknowledges QDAF's commitment to programs which assist fishers to accurately identify and report catch.

The Department also recognises that work has commenced under the Queensland Government's Sustainable Fisheries Strategy 2017–2027, which will ensure sufficient information is collected to monitor and assess the fishery's impact on target and non-target species, including protected species, with a high degree of confidence. Actions include:

- Developing a fisheries monitoring and research plan to outline standards for improved data collection and guide the identification of data needs, resources and priorities to support the implementation of this strategy (Action 1.1).
- Undertake additional monitoring of key biological stocks to better understand fishery performance and support management actions in a more timely way (Action 1.2).
- Develop partnerships to trial the use of novel technologies for fisheries monitoring, such as apps, robotic vision, spatial interfaces and mapping, social media and citizen science (Action 1.3).
- Develop and implement a data validation plan to provide:
 - mechanisms to independently validate data on catch and interactions with protected species
 - education programs to improve submission of accurate catch data (include promoting a move to electronic logbooks)
 - robust systems for checking and forensically analysing incoming data (Action 1.4).

QDAF has advised the Department that these actions will be implemented as follows:

- Stage 1: Implementation of vessel monitoring systems (1 Jan 2019) with the remaining actions to be progressed during 2019 and include data dictionary; forensic auditing and cross checking of data; education and capacity building; logbook design and development and rollout of electronic reporting solutions; catch disposal for collection and validation of accurate retained catch data
- Stage 2: An independent data collection and validation program (such as electronic monitoring) from 1 January 2020.

The Department considers that accurate identification, data collection and reporting is important 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.

Assessment	
<p>2.1.2 There is a risk analysis of the bycatch with respect to its vulnerability to fishing.</p>	<p>Does not meet</p> <p>There is currently no ecological risk assessment or other arrangement to guide management of ecological risk in the fishery. QDAF is undertaking a series of ecological risk assessments to guide ecological risk management in the fishery. A draft level 1 assessment is expected to be completed by December 2018. This risk assessment will be presented to the East Coast Inshore working group and the expert panel. Risks identified in the level 1 assessment will then be refined through a series of level 2 assessments over the next three years (2018-2021).</p> <p>The Department considers it important that risks be identified and managed in a precautionary way as soon as possible. Ongoing assessment, monitoring and management of risk will also depend on having quality information. Given concerns about significant misreporting of protected species interactions, a system to ensure robust information is available must also be implemented.</p>
Management responses	
<p>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.</p>	<p>Partially meets</p> <p>Bycatch rates or mitigations strategies for the line fishing sector of the East Coast Inshore Fin Fish Fishery was unavailable, however previous assessments by the Department have suggested that bycatch rates are likely to be minimal with most unwanted bycatch able to be released unharmed.</p> <p>Within the net sectors of the fishery, bycatch was estimated in 2001 at less than 20 per cent of the total catch for netting operations targeting mullet, whiting, small mackerels, barramundi and mixed estuary species; and at 28 per cent for operations targeting sand whiting (Halliday et al. 2001). Bycatch consists of mainly juvenile fish and non-marketable species. Some protected species are also reported as bycatch. The Department considers it is important that all stocks of target and non-target species are considered in managing the fishery, and that data underpinning these considerations remains up to date to allow for effective management of risk.</p> <p>Bycatch mitigation measures currently in place include restrictions on net type, length and mesh size for mesh nets, net attendance rules and the use of turtle excluder devices in tunnel nets.</p>
<p>2.1.4 An indicator group of bycatch species is monitored.</p>	<p>Does not meet</p> <p>There are no indicator species monitored in the ECIFFF. It is possible that the ecological risk assessments and harvest strategy which are being developed will include such monitoring. The ecological risk assessments and harvest strategy are expected to be developed and implemented over the next three years.</p>
<p>2.1.5 There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.</p>	<p>Does not meet</p> <p>There are no indicator species monitored in the ECIFFF and therefore no associated management triggers. It is possible that the ecological risk assessments and harvest strategy which are being developed will include triggers for indicator species. The ecological risk assessments and harvest strategy are expected to be developed and implemented over the next three years.</p>

<p>2.1.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Partially meets</p> <p>Although there are some measures in place to manage impacts on non-target species, the lack of information, monitoring or recent assessment, coupled with concerns regarding accuracy of reported logbook data undermine confidence in the effectiveness of the arrangements to manage the impact on bycatch species.</p> <p>Improvements scheduled as part of the Queensland Government’s Sustainable Fisheries Strategy 2017-2027 will improve capacity and confidence in these measures.</p>
<p>Objective 2 - 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>Information requirements</p>	
<p>2.2.1 Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities.</p>	<p>Partially meets</p> <p>As part of the current management regime, fishers are required to report all interactions with protected species in their fishery logbooks. There is however information to suggest that not all interactions are being reported. This includes much higher rates of interactions on trips where fishery observers have been on-board, and reports of marine mammals found dead in areas corresponding to relatively high fishing effort.</p> <p>The Department considers it is important that there is confidence in the accuracy and reliability of fishery data used to manage ecological sustainability.</p> <p>QDAF is investigating the use of electronic monitoring solutions as part of its Sustainable Fisheries Strategy 2017–2027. If implemented electronic monitoring could help validate logbook records and ensure an accurate record of all interactions.</p> <p>QDAF has a compliance program which is capable of investigating and responding to any alleged misreporting.</p>

Assessments

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

Does not meet

Fishers are required to report all interactions with protected species in their fishery logbooks. However there have been allegations that not all interactions are currently being reported. This is based on much higher rates of interactions on trips where fishery observers were on-board, and numerous reports of unexplained marine mammal deaths in areas where fishing effort is known to be high.

The Queensland government collects information on protected species interactions, and publishes some of this information on the [data.qld.gov.au website](http://data.qld.gov.au/website). The available records detail species, fishing methods and whether the animal was released alive, dead or injured. The published records do not distinguish where interactions occurred, which makes it impossible to analyse interactions at a fishery level or finer spatial scale. The published records also do not include records taken from five boats or less (for confidentiality reasons).

Distinguishing interactions that occur in the ECIFFF line sector from line fishing sectors in other Queensland managed fisheries is also extremely difficult, including for QDAF.

There is currently no ecological risk assessment or other arrangement to guide management of ecological risk in the fishery.

QDAF is undertaking a series of ecological risk assessments to guide ecological risk management in the fishery. A level 1 assessment is expected to be completed by July 2019, and then refined through a series of level 2 assessments over the next three years (2018-2021).

The Department considers it important that risks be identified and managed in a precautionary way as soon as possible.

Ongoing assessment, monitoring and management of risk will also depend on having quality information. Given concerns about significant misreporting of protected species interactions, a system to ensure robust information is available must also be implemented.

Completion of the risk assessment and implementation of appropriate risk mitigation strategies to reduce interactions with protected species identified as being at risk must remain a priority for completion.

QDAF is investigating the use of electronic monitoring solutions as part of its Sustainable Fisheries Strategy 2017–2027. If implemented electronic monitoring could help validate logbook records and ensure an accurate record of all interactions.

2.2.3 There is an assessment of the impact of the fishery on threatened ecological communities.

Not applicable

There are no threatened ecological communities in the area of the fishery.

Management responses	
<p>2.2.4 There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.</p>	<p>Partially meets</p> <p>Bycatch mitigation measures in place include restrictions on net type, length and mesh size for mesh nets, net attendance rules and the use of turtle excluder devices in tunnel nets. It is unclear what if any measures apply to the line sector, however line fishing is thought to represent a relatively small proportion of the fishery.</p> <p>Interactions with protected species are required to be reported by fishers to the QDAF within a month after cessation of each fishing trip. This provides QDAF with the opportunity to monitor and respond to emerging risks to protected species. Protected species interactions are also published online (data.qld.gov.au website).</p> <p>The records detail species, fishing methods and whether the animal was released alive, dead or injured. The available records however, do not distinguish where the animals were interacted with, which makes it impossible to analyse interactions at a fishery-level or finer spatial scale. The published records also do not include records taken from five boats or less (for confidentiality reasons).</p> <p>EPBC Act listed species that are known to interact with the fishery include turtles, whales and dolphins, dugongs, sawfish, manta and devil-rays, crocodiles, seahorses, birds (cormorants, pelicans and terns), Great White Sharks and sea-snakes.</p> <p>Hammerhead sharks are also targeted in the ECIFFF, subject to strict management measures. Hammerhead sharks are CITES-listed and the Scalloped Hammerhead Shark is listed in the Conservation Dependent threatened species category of the EPBC Act.</p>
<p>2.2.5 There are measures in place to avoid impact on threatened ecological communities.</p>	<p>Not applicable</p> <p>There are no threatened ecological communities in the area of the fishery.</p>
<p>2.2.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Partially meets</p> <p>There are measures in place in the current management arrangements to avoid mortality of, or injuries to, endangered, threatened or protected species but there are concerns that current reporting is not adequately capturing the degree of interactions with protected species. There are no threatened ecological communities identified in the area of the fishery. Completion of the ecological risk assessment, harvest strategy and other reforms scheduled under the Sustainable Fisheries Strategy should strengthen and improve confidence in this capacity.</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.

Partially meets

The nature of the fishing gear used in the East Coast Inshore Fin Fish Fishery (net and line) means that minimal contact with the seabed and associated habitat occurs. Impacts on seabed communities and ecosystem structures are therefore likely to be negligible.

The removal of high order predators (such as sharks, barramundi and mackerel) can potentially impact food webs and species assemblages. While these impacts have not been quantified for the East Coast Inshore Fin Fish Fishery, management of the fishery aims to ensure that sustainable populations of target species are maintained.

The [Marine bioregional plan for the Temperate East Marine Region 2012](#) has identified that there are 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. However, due to the low impact harvesting methods used in the fishery (gillnet and line), impacts to the physical ecosystem such as the canyons, rocky reefs and the Tasmanid seamount chain are likely to be low.

The ECIFFF operates in areas of the Great Barrier Reef World Heritage Area and Great Barrier Reef Marine Park. The Great Barrier Reef Marine Park is subject to spatial zoning arrangements designed to protect the biodiversity and health of the marine park. Approximately 33 per cent of the marine park is closed to fishing. The ECIFFF management arrangements in conjunction with the management arrangements for the marine park are considered to be sufficient to manage the risk of any significant impacts on the Great Barrier Reef Marine Park or World Heritage values of the Great Barrier Reef World Heritage Area.

This assessment also considered the possible impacts of the fishery on the ecological character of the Moreton Bay Ramsar Wetland, Great Sandy Strait Ramsar Wetland, Shoalwater and Corio Bays Ramsar Wetland and the Bowling Green Bay Ramsar Wetland.

The Department considers that an action taken by an individual fisher, acting in accordance with the management regime for the East Coast Inshore Fin Fish Fishery, would not be expected to have a significant impact on the Great Barrier Reef Marine Park, the World Heritage values of the Great Barrier Reef World Heritage Area or on the ecological character of a Wetland of International Importance.

While the Department recognises there is bycatch of EPBC Act protected species, the management arrangements in place in the fishery and the conditions proposed in Section 4 of this assessment report, should ensure that any impacts on bycatch species are minimised.

Assessment	
<p>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.</p> <ol style="list-style-type: none"> 1. Impacts on ecological communities <ul style="list-style-type: none"> • Benthic communities • Ecologically related, associated or dependent species • Water column communities 2. Impacts on food chains <ul style="list-style-type: none"> • Structure • Productivity/flows 3. Impacts on the physical environment <ul style="list-style-type: none"> • Physical habitat • Water quality 	<p>Does not meet</p> <p>There is currently no ecological risk assessment or other arrangement to guide management of ecological risk in the fishery. QDAF is undertaking a series of ecological risk assessments to guide ecological risk management in the fishery. A level 1 assessment is expected to be completed by December 2018. This risk assessment will be discussed with the East Coast Inshore working group and the expert panel. Risks identified in the level 1 assessment will then be refined through a series of level 2 assessments over the next three years (2018-2021).</p> <p>The Department considers it important that risks be identified and managed in a precautionary way as soon as possible. Ongoing assessment, monitoring and management of risk will also depend on having quality information. Given concerns about significant misreporting of protected species interactions, a system to ensure robust information is available must also be implemented.</p>
Management responses	
<p>2.3.3 Management actions are in place to ensure significant damage to ecosystems does not arise from the impacts described in 2.3.1.</p>	<p>Partially meets</p> <p>The current suite of management arrangements are likely to be sufficient to minimise impacts on the ecosystem more broadly, but completion of the risk assessment and implementation of appropriate risk mitigation strategies should remain a priority for completion.</p>
<p>2.3.4 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>Does not meet</p> <p>No ecological indicators have been identified and there is no harvest strategy, ecological risk management strategy or other framework for monitoring and responding the ecological impacts.</p> <p>An ecological risk assessment is expected to be published for this fishery by July 2019 (and progressed over the following three years). These assessments will inform risk management measures that will be implemented from January 2020 via a harvest strategy.</p>
<p>2.3.5 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Partially meets</p> <p>The management arrangements are likely to be sufficient to minimise the impact of fishing operations on the ecosystem but completion of the ecological risk assessment, harvest strategy and other reforms scheduled under the Queensland Sustainable Fisheries Strategy 2017-2027 should remain a high priority to improve confidence in this capacity.</p>

SECTION 3: ASSESSMENT OF THE QUEENSLAND EAST COAST INSHORE FIN FISH FISHERY AGAINST REQUIREMENTS OF THE EPBC ACT

The tables below are not complete or exact representations of the EPBC Act. They are intended to show that the relevant sections and components of the EPBC Act have been taken into account in the formulation of advice on the fishery in relation to decisions under Part 13 and Part 13A.

Part 12

Section 176 Bioregional Plans	Comment
(5) Minister must have regard to relevant bioregional plans	<p>The marine bioregional plan for the Temperate East Marine Region 2012 identifies three key ecological features in the southern part of the fishery. These are the upwelling off Fraser Island, the canyons on the eastern continental slope and the Tasmantid seamount chain.</p> <p>Extraction of living resources by commercial fishing was identified as a pressure of potential concern operating on these three key ecological features. However, the marine bioregional plan notes that the assessment was conservative in the context of active fisheries management.</p> <p>Bycatch by commercial fishing was also identified as a pressure of potential concern operating on the three key ecological features, with bycatch of marine turtles and dugong also listed as a regional concern. Improving data collection and data validation in the fishery has been identified in previous assessments and continues to be important for managing these risks.</p> <p>The conditions proposed in Section 4 of this report seek to address these issues by requiring QDAF to improve data collection, risk assessment, monitoring and management of target as well as not target species, including protected species.</p>

Part 13

Accreditable plan, regime or policy (Division 1, Division 2, Division 3, Division 4)	Comment
<p>s. 208A (1) (a-e) , s.222A (1) (a-e), s.245 (1) (a-e), s.265 (1) (a-e)</p> <p>Does the fishery have an accreditable plan of management, regime or policy?</p>	<p>Yes</p> <p>The ECIFFF is managed in accordance with the Queensland <i>Fisheries Act 1994</i>, Fisheries Regulation 2008 and arrangements established under this legislation.</p>

Division 1 Listed threatened species, Section 208A Minister may accredit plans or regimes	Comment
<p>(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing?</p>	<p>Yes Commercial fishers are required to report all interactions with protected species to QDAF within a month after cessation of each fishing trip. This allows QDAF to monitor and respond to emerging issues.</p> <p>Bycatch mitigation measures are also in place for certain fishing activities, including the use of bycatch exclusion devices, and various industry-led (voluntary) codes of practice for different parts of the fishery. QDAF is working to amalgamate these codes into a single Best Management Practice program for the fishery.</p> <p>The Bycatch Action Plan for the fishery is no longer in operation. This will be replaced by a harvest strategy, which will be informed by an ecological risk assessment of the fishery. The Department considers it important that the assessment and harvest strategy be completed as a priority.</p> <p>Concerns have been raised by some stakeholders regarding the accuracy of reported protected species interactions and it has been suggested that interaction rates may be much higher than are being reported.</p> <p>The conditions proposed in Section 4 of this report seek to clarify and manage this issue by requiring QDAF to improve data collection, risk assessment, monitoring and management for species, including threatened species. The Department expects this will help clarify whether reported protected species interactions are accurate and whether steps taken to mitigate death and injury to these species are sufficient.</p> <p>Measures, such as the Fisheries (Sustainable Fisheries Strategy) Amendment Bill (introduced into the Queensland Parliament on 4 September 2018) are also being undertaken by the Queensland Government to support QDAF's compliance and enforcement capacity. This is expected to support efforts to ensure accurate reporting.</p> <p>Given the available information, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of members of listed threatened species.</p>
<p>(g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species?</p>	<p>No The fishery is unlikely to adversely affect the survival or recovery in nature of the species.</p> <p>Existing management measures, coupled with the conditions proposed in section 4 of this assessment report are expected to manage risks to these species during the course of the proposed approval.</p>
Division 2 Migratory species, Section 222A Minister may accredit plans or regimes	Comment
<p>(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing?</p>	<p>Yes Measures outlined for listed threatened species (Division 1 (f) in this section of the report) also apply to listed migratory species. Given the available information, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of members of listed migratory species.</p>
<p>(g) And, is the fishery likely to adversely affect the conservation status of a listed migratory species or a population of that species?</p>	<p>No The existing management measures, coupled with the conditions proposed in section 4 of this assessment report are expected to manage risks to these species during the course of the proposed approval.</p>

Division 3 Whales and other cetaceans, Section 245 Minister may accredit plans or regimes	Comment
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing?	Yes Measures outlined for listed threatened species (Division 1 (f) in this section of the report) also apply to whales and other cetaceans. Given the available information, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of members of whales and other cetaceans.
(g) And, is the fishery likely to adversely affect the conservation status of a species of cetacean or a population of that species?	No The existing management measures, coupled with the conditions proposed in section 4 of this assessment report are expected to manage risks to these species during the course of the proposed approval.
Division 4 Listed marine species, Section 265 Minister may accredit plans or regimes	Comment
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing?	Yes Measures outlined for listed threatened species (Division 1 (f) in this section of the report) also apply to listed marine species. Given the available information, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of members of listed marine species.
(g) And, is the fishery likely to adversely affect the conservation status of a listed marine species or a population of that species?	No The existing management measures, coupled with the conditions proposed in section 4 of this assessment report are expected to manage risks to these species during the course of the proposed approval.
Section 303AA Conditions relating to accreditation of plans, regimes and policies	Comment
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	
(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only: (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	The Department considers that the accreditation of the ECIFFF management regime remains valid under sections 208A, 222A, 245 and 265, subject to the following, existing conditions: QDAF to: a) work with relevant stakeholders to determine an improved data collection and validation approach that can validate the number of interactions with all bycatch, which will include protected species, and b) implement appropriate mitigation measures to ensure interactions with protected species are kept to a minimum. No additional conditions, beyond those specified in the existing approval, are considered necessary at this time.

(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	Not applicable Conditions have not been contravened.
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Part 13A

Section 303BA Objects of Part 13A	
<p>(1) The objects of this Part are as follows:</p> <ul style="list-style-type: none"> (a) to ensure that Australia complies with its obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Biodiversity Convention; (b) to protect wildlife that may be adversely affected by trade; (c) to promote the conservation of biodiversity in Australia and other countries; (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way; (e) to promote the humane treatment of wildlife; (f) to ensure ethical conduct during any research associated with the utilisation of wildlife; and (h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife. 	
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> <ul style="list-style-type: none"> (a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to: <ul style="list-style-type: none"> (i) the survival of any taxon to which the specimen belongs; or 	<p>Approval recommended</p> <p>The Department's assessment has considered the fishery's impact on Great Hammerhead (<i>Sphyrna mokarran</i>), Scalloped Hammerhead (<i>S. lewini</i>) and Smooth Hammerhead (<i>S. zygaena</i>) sharks, which are listed under CITES Appendix II, and which are targeted in the ECIFFF. Scalloped Hammerhead shark is also listed in the Conservation Dependent threatened species category of the EPBC Act and is subject to strict management measures.</p> <p>In 2014, Australia's CITES Scientific Authority determined that Australia's national take of hammerhead sharks would not be detrimental to the survival of the species if catch was restricted to historical levels.</p> <p>Given the management arrangements in place to monitor and control the level of harvest of CITES species in the ECIFFF, and the conditions proposed in section 4 of this assessment report, the Department considers that the fishery will not be detrimental to the survival of any taxon to which the CITES specimen belongs during the term of the proposed approval.</p>
<ul style="list-style-type: none"> (ii) the recovery in nature of any taxon to which the specimen belongs; or 	<p>The CITES specimens harvested from the fishery are not considered to be over fished in Queensland and management arrangements including catch limits are designed to ensure their ecologically sustainable harvest. A harvest strategy is being developed which is expected to include measures to recover stocks if they fall below defined reference points.</p>
<ul style="list-style-type: none"> (iii) any relevant ecosystem (for example, detriment to habitat or biodiversity); and 	<p>The potential for the fishery to impact unacceptably and unsustainably on any relevant ecosystem during the period of the proposed approval is considered low.</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 taken in the Queensland East Coast Inshore Fin Fish Fishery as defined in the management regime in force under the <i>Fisheries Act 1994</i> (Queensland) and Fisheries Regulation 2008 (Queensland), but not including:</p> <ul style="list-style-type: none"> ○ specimens that belong to eligible listed threatened species, as defined under section 303BC of the EPBC Act, or ○ specimens that belong to taxa listed under section 303CA of the EPBC Act (Australia's CITES List). <p>be included in the list of exempt native specimens subject to the following conditions:</p> <ul style="list-style-type: none"> ○ the specimen, or the fish or invertebrate from which it is derived, was taken lawfully; and ○ the specimens are covered by the declaration of an approved wildlife trade operation under section 303FN of the EPBC Act in relation to the fishery.
<p>(1A) In deciding to amend the LENS, the Minister must rely primarily on outcomes of Part 10, Div. 1 or 2 assessment</p>	<p>Not applicable The fishery is not managed by the Commonwealth.</p>
<p>(1C) The above does not limit matters that may be considered when deciding to amend the LENS.</p>	<p>The Department considers that it has taken into account 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> <p>(a) other Minister or Ministers as appropriate; and</p> <p>(b) other Minister or Ministers of each State and self-governing Territory as appropriate; and</p> <p>(c) other persons and organisations as appropriate.</p>	<p>The submission from QDAF was made available on the Department's website from 6 July 2018 until 13 August 2018. Approximately 9128 submissions, including campaign emails sent directly to the Minister's office, were received and considered in this assessment. The Department also considered advice from QDAF on these submissions and advice from the Great Barrier Reef Marine Park Authority in drafting the assessment findings and proposed conditions.</p>

Section 303FN Approved wildlife trade operation	Comment
(2) The Minister may, by instrument published in the <i>Gazette</i> , declare that a specified wildlife trade operation is an approved wildlife trade operation for the purposes of this section.	
(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is satisfied that: (a) the operation is consistent with the objects of Part 13A of the Act; and	The fishery is consistent with Objects of 13A – based on the assessment against the Australian Government Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition (the Guidelines).
(b) the operation will not be detrimental to: (i) the survival of a taxon to which the operation relates; or (ii) the conservation status of a taxon to which the operation relates; and (ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and	The fishery will not be detrimental to the survival or conservation status of a taxon to which it relates, nor will it threaten any relevant ecosystem, within the proposed term of this approval, given the management measures in place.
(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	Not applicable The Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) do not specify fish or crustacea as a class of animal in relation to the welfare of live specimens.
(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.	Not applicable No other conditions are specified in relation to commercial fisheries in the EPBC Regulations.
(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to: (a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and	Meets The fishery will not have a significant impact on any relevant ecosystem, given the management measures in place and conditions specified in Section 4 of this assessment report.
(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).	Meets The management arrangements that will be employed for the fishery as outlined in the assessment against the Guidelines and the conditions outlined in section 4, are likely to be effective.

<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <ul style="list-style-type: none"> (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 (b) whether the legislation applies throughout the State or Territory concerned; and (c) whether, in the opinion of the Minister, the legislation is effective. 	<p>Meets Species within the fishery will be protected, conserved and managed in accordance with the Queensland <i>Fisheries Act 1994</i> and Queensland Fisheries Regulation 2008.</p> <p>This legislation applies throughout Queensland-managed waters.</p> <p>The Department considers that the legislation is likely to be effective and also recognises that action is also being taken to further strengthen these arrangements (Fisheries (Sustainable Fisheries Strategy) Amendment Bill introduced into the Queensland Parliament on 4 September 2018).</p>
<p>(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, an only if, the operation is an operation for the taking of specimens and:</p> <ul style="list-style-type: none"> (a) the operation is a commercial fishery. 	<p>Meets The fishery to which the wildlife trade operation relates is a commercial fishery.</p>
<p>Section 303FR Public consultation</p>	<p>Comment</p>
<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"> (a) setting out the proposal to make the declaration; and (b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and (c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal. <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>Meets A public notice, which set out the proposal to declare the ECIFFF an approved wildlife trade operation and included the application from QDAF, was released for public comment on 6 July 2018 until 13 August 2018, a total of 22 business days (excludes five Northern Territory public holidays).</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>Meets The Department's assessment considered approximately 9128 public comments, including campaign emails sent directly to the Minister's office, and QDAF's responses to these comments.</p>

Section 303FT Additional provisions relating to declarations	Comments
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	Any declaration for the fishery will be made under section 303FN.
(4) The Minister may make a declaration about a plan or operation even though he or she considers that the plan or operation should be the subject of the declaration only: (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of declaration is to specify the period, circumstances or condition.	The standard conditions applied to commercial fishery wildlife trade operations include: <ul style="list-style-type: none"> • operation in accordance with the management regime • notifying the Department of changes to the management regime, and • annual reporting in accordance with the requirements of the Guidelines. The wildlife trade operation instrument for the fishery specifies the standard and any additional conditions applied.
(8) A condition may relate to reporting or monitoring.	Two of the conditions relate to reporting.
(9) The Minister must, by instrument published in the <i>Gazette</i> , revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.	
(11) A copy of an instrument under section 303FN, or this section is to be made available for inspection on the internet.	Any instrument for the fishery made under sections 303FN and the conditions under section 303FT will be registered as a notifiable instrument and made available through the Department's website.

Part 16

Section 391 Minister must consider precautionary principle in making decisions	Comment
(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. (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.	Partially meets Many of the arrangements in the fishery are precautionary, however further progress is required to address uncertainty around status of some stocks, impacts of localised fishing effort, and accuracy of reported data. Reforms are underway as part of the Queensland Government's Sustainable Fishery Strategy 2017–2027 which will significantly improve capacity to identify and manage risks. Conditions recommended in section 4 of this assessment reflect the need to progress these reforms.

SECTION 4: QUEENSLAND EAST COAST INSHORE FIN FISH FISHERY – SUMMARY OF ISSUES REQUIRING CONDITIONS, NOVEMBER 2018

Issue	Condition
<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, EPBC Act protected species or the ecosystem.</p>	<p>Condition 1:</p> <p>Operation of the Queensland East Coast Inshore Fin Fish Fishery will be carried out in accordance with the <i>Queensland Fisheries Act 1994</i> and the Queensland Fisheries Regulation 2008.</p> <p>Condition 2:</p> <p>The Queensland Department of Agriculture and Fisheries to inform the Department of any intended material changes to the Queensland East Coast Inshore Fin Fish Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.</p>
<p><u>Annual Reporting</u></p> <p>It is important that reports be produced and presented to the Department annually in order for the performance of the fishery and progress in implementing the conditions in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration. Annual reports should follow Appendix B to the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' and include a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with EPBC Act protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing the Department's conditions. Electronic copies of the guidelines are available from the Department's website at http://www.environment.gov.au/resource/guidelines-ecologically-sustainable-management-fisheries.</p>	<p>Condition 3:</p> <p>The Queensland Department of Agriculture and Fisheries to produce and present reports to the Department annually as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p>

Reliable fisheries data collection, validation and monitoring

Accurate identification and reporting of all retained and discarded catch is crucial to ensure impacts of fishing on all species can be monitored and managed sustainably. Where appropriate this reporting should be undertaken at a species-level.

Concerns have been raised regarding logbook data quality, including lack of species-level reporting and availability of information on discards, and accuracy of protected species interactions. There has been no fishery-independent data collection for this fishery since Queensland Department of Agriculture and Fisheries observer program ceased in 2012.

The *Great Barrier Reef Outlook Report 2014* also highlights the importance of accurate and ongoing data collection for managing the impacts of fishing on the environment, and ensuring sustainability, particularly within the Great Barrier Reef World Heritage Area where the ECIFFF operates.

The Department acknowledges Queensland Department of Agriculture and Fisheries commitment to programs which assist fishers to accurately identify and report catch. The Department recognises that work has commenced under the Queensland Government's Sustainable Fisheries Strategy 2017–2027, which will ensure sufficient information is collected to monitor and assess the fishery's impact on target and non-target species, including protected species, with a high degree of confidence. Actions include:

- Developing a fisheries monitoring and research plan to outline standards for improved data collection and guide the identification of data needs, resources and priorities to support the implementation of this strategy (Action 1.1).
- Undertake additional monitoring of key biological stocks to better understand fishery performance and support management actions in a more timely way (Action 1.2).
- Develop partnerships to trial the use of novel technologies for fisheries monitoring, such as apps, robotic vision, spatial interfaces and mapping, social media and citizen science (Action 1.3).
- Develop and implement a data validation plan to provide:
 - mechanisms to independently validate data on catch and interactions with protected species
 - education programs to improve submission of accurate catch data (include promoting a move to electronic logbooks)
 - robust systems for checking and forensically analysing incoming data (Action 1.4).

Queensland Department of Agriculture and Fisheries has advised the Department that these actions will be implemented as follows:

- Stage 1: Implementation of vessel monitoring systems (1 Jan 2019) with the remaining actions to be progressed during 2019 and include data dictionary; forensic auditing and cross checking of data; education and capacity building; logbook design and development and rollout of electronic reporting solutions; catch disposal for collection and validation of accurate retained catch data
- Stage 2: An independent data collection and validation program (such as electronic monitoring) from 1 January 2020.

The Department considers that accurate identification, data collection and reporting is important 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.

Condition 4:

By **January 2020** the Queensland Department of Agriculture and Fisheries to implement foundational reforms (actions 1.1-1.4) identified in the Queensland Government's Sustainable Fisheries Strategy 2017–2027 for the ECIFFF and collect accurate and reliable data, sufficient to monitor and assess the fishery's impact on target and non-target species, including protected species, with a high degree of confidence.

Condition 5:

The Queensland Department of Agriculture and Fisheries progress the development and implementation of an independent data collection and validation program including:

- a. Assess feasibility and complete proof of concept trials for electronic monitoring by **December 2019**.
- b. Implement an independent data collection and validation program in ECIFFF from **January 2020** (this may include electronic monitoring or alternative interim solutions).

Management of sharks including Hammerhead and Winghead Sharks

The Department considers it important that all shark catch be landed in a form that facilitates accurate identification to species level. While the Department acknowledges some measures have been taken to assist with this, the Department remains concerned that allowing the removal of fins from the trunks of sharks in Queensland affects capacity to identify species or verify the accuracy of catch records.

Hammerhead sharks (Scalloped, Great and Smooth) were listed under CITES Appendix II in September 2014, following concerns about global depletion. Subsequent to this CITES listing, the Scalloped Hammerhead Shark was assessed and considered eligible for an Endangered listing and Conservation Dependent listing under the EPBC Act. Australia's Threatened Species Scientific Committee (TSSC) recommended the species be listed in the Conservation Dependent category, and the Ministerial decision to list this species as Conservation Dependent came into effect in March 2018. As part of the Conservation Dependent listing under the EPBC Act, the TSSC made a number of recommendations to the Commonwealth Environment Minister. The recommendations, that are relevant to Queensland fisheries and in particular ECIFFF, include:

- The Department continue to monitor the development of catch validation approaches in both the Northern Territory and Queensland and in the context of the catch data. In particular, the Committee regards the revision of all fisheries management regimes relevant to this assessment to provide for the landing of hammerhead sharks with fins naturally attached (consistent with many shark fisheries in Australia), as essential if this species is to remain listed in the Conservation Dependent category.
- The Department update the TSSC on the results of the Queensland Government's scheduled June 2019 review of hammerhead stock status and management arrangements.
- In reviewing the catch data for Scalloped Hammerhead (*Sphyrna lewini*) and Great Hammerhead (*Sphyrna mokarran*), to provide the available catch data for Winghead Shark (*Eusphyrna blochii*) to the TSSC for consideration. The TSSC advised that particular attention will be given to catch levels of Winghead Shark relative to Scalloped and Great Hammerhead sharks, and the level of confidence in data attained from the various mechanisms proposed to strengthen data validation.
- The Department to report annually to the TSSC on the performance of the suite of management arrangements outlined in the listing advice which are to be implemented for Scalloped Hammerhead Shark as a 'plan of management' for the purposes of satisfying the requirements of subparagraph 179(6)(b)(ii) of the EPBC Act.

To enable the Department to report on the recovery of Scalloped Hammerhead sharks to the TSSC, Queensland Department of Agriculture and Fisheries is required to report on progress and performance of management arrangements and actions undertaken in response to TSSC recommendations, as outlined in the listing advice for Scalloped Hammerhead sharks (<http://www.environment.gov.au/biodiversity/threatened/species/pubs/85267-listing-advice-15032018.pdf>).

The Department recognises that progress has been made by Queensland Department of Agriculture and Fisheries to require commercial fishers that are authorised to target shark to land sharks with their fins naturally attached. However this requirement is only applied once 75 per cent of the total allowable catch limit is reached. The Department considers that all catch of Hammerhead and Winghead sharks should be landed in a form that allows the species to be readily and reliably identified, and that the current arrangements do not facilitate sufficient management of compliance to meet the requirements of the TSSC.

Condition 6:

The Queensland Department of Agriculture and Fisheries to:

- a. Continue to support fishers to accurately identify and record sharks at the species level. This should include some assessment and monitoring of reporting performance to identify and target ongoing improvements where necessary
- b. Ensure all commercial catches of shark species of conservation concern can be readily and reliably determined, at a taxonomic level sufficient to monitor and manage risks at the species level. This may require a prohibition on removal of fins, fillets or other morphological features that assist in identifying species prior to landing.
- c. By February 2020, report results of the Queensland Government's scheduled June 2019 review of hammerhead stock status to the Department, in a form suitable for the TSSC's review of Conservation Dependent species.
- d. Review and provide catch data for Scalloped Hammerhead (*Sphyrna lewini*), Great Hammerhead (*Sphyrna mokarran*) and Winghead Sharks (*Eusphyrna blochii*) to the Department of Environment and Energy for the TSSC's consideration. The data should be in a form that facilitates a comparison of catch levels between the three species, and provide advice on the level of confidence in the various data collected by Queensland Department of Agriculture and Fisheries.
- e. Provide annual reports to the Department of Environment and Energy (as per **Condition 3**) on the performance of management arrangements, including actions undertaken as part of these conditions, and which comprise the 'plan of management' for the purposes of subparagraph 179(6)(b)(ii) of the EPBC Act for Scalloped Hammerhead Sharks.

Issue	Condition
<p><u>Determining status of fish stocks</u></p> <p>The Queensland Department of Agriculture and Fisheries undertakes annual assessments of stock status and regular stock assessments to support its management of key species in the fishery. Stock status assessments are undertaken annually using protocols adopted by all jurisdictions in the Status of Australian Fish Stocks (SAFS) Report. Outcomes are reported on the Queensland Department of Agriculture and Fisheries website at https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-our-fisheries/commercial-fisheries/data-reports/sustainability-reporting/stock-status-assessments/queensland-stock-status-results or on the SAFS website at http://www.fish.gov.au/.</p> <p>The SAFS process follows a weight of evidence approach using all available data. If insufficient data are available to confidently classify a stock, the stock is reported as “undefined”. A number of target species and species groups in the ECIFFF are currently classified as undefined. These include: Black Jewfish, Blacktip Shark species, Blue Threadfin, Garfish species, Javelin species, Mangrove Jack, Mulloway, Queenfish species, Sandbar Shark, Silver and other Trevally species, Swallowtail and other Dart species. Queensland Department of Agriculture and Fisheries participate in the national SAFS Advisory Group convened by the FRDC, who have commissioned projects designed to reduce the number of undefined stocks.</p> <p>A number of other species encountered in the fishery also have an undefined stock status, and Snapper (<i>Chrysophrys auratus</i>) is classified overfished. However, Queensland Department of Agriculture and Fisheries has advised that these species are not caught in large volumes in this fishery.</p> <p>Where a species does not have a stock assessment or has an undefined status, Queensland Department of Agriculture and Fisheries uses other methods, such as analysing catch trend data, to detect and respond to concerns.</p> <p>The Department acknowledges that work has commenced under the Queensland Government’s Sustainable Fisheries Strategy 2017–2027 to undertake regular stock assessments (annually or at least every two years) for key stocks to assess the stock status against the target and limit reference points which will be identified in the harvest strategy for the fishery.</p> <p>The Department recognises that in some cases it may not be possible to determine stock status, however in all cases stocks must be managed to ensure they remain sustainable, not overfished or subject to overfishing.</p> <p>While significant effort is invested in assessing and managing many of the target species, management of non-target species (byproduct and bycatch) requires further development.</p>	<p>Condition 7:</p> <p>The Queensland Department of Agriculture and Fisheries to:</p> <ol style="list-style-type: none"> a. Continue to improve understanding of stock status of all commercially and recreationally important species which are currently classified as ‘undefined’ in the area of the East Coast Inshore Fin Fish Fishery. b. Ensure catch composition is sufficiently monitored and understood to ensure that all stocks impacted by the fishery are sustainably managed, not overfished or subject to overfishing.

Issue	Condition
<p><u>Ecological Risk Assessment and Management</u></p> <p>By its nature, fisheries management involves substantial elements of risk and uncertainty. Given this, many fisheries have developed frameworks to deliver an evidence-based, precautionary approach to achieving long-term sustainability and profitability drawing on available information.</p> <p>Ecological risk assessments (ERAs) are commonly used to identify and prioritise management of risks in fisheries. These assessments are particularly important for fisheries as extensive and complex as the ECIFFF. The Department of Environment and Energy considers it important that risks are appropriately identified, monitored and managed to ensure ecological sustainability of the fishery.</p> <p>The Queensland Department of Agriculture and Fisheries has committed to undertake and publish ERAs for all fisheries including ECIFFF according to the following timeframe and consistent with the Queensland Government's published ERA guidelines (https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable-fisheries-strategy/ecological-risk-assessment-guidelines):</p> <ul style="list-style-type: none"> • A Level 1 ERA for ECIFFF by July 2019 • A level 2 ERA for species of conservation concern (including protected species and identified shark species) by December 2019 • A level 2 ERA for target and byproduct species during 2019–20, and • A level 2 ERA for bycatch species in 2020–21. <p>The Department recognises Queensland Department of Agriculture and Fisheries ERA guidelines seek to refine risk ratings through progressive assessments, to differentiate between 'real' and 'potential' risks, and to address risks through harvest strategies and fisheries working groups.</p> <p>Noting the anticipated timeframe for completion of risk assessments and introduction of risk-mitigation measures, the Department considers it crucial that all 'real' and 'potential' risks be managed in a precautionary way throughout the process, based on best available information.</p> <p>These precautionary risk management strategies should be developed and implemented in consultation with relevant experts and stakeholders, and performance should be monitored and reported annually to the Department.</p>	<p>Condition 8:</p> <p>The Queensland Department of Agriculture and Fisheries to:</p> <ol style="list-style-type: none"> a. Publish a level 1 ecological risk assessment for the Queensland East Coast Inshore Fin Fish Fishery by July 2019. b. Implement strategies to mitigate risks identified in the level 1 ecological risk assessment by December 2019. c. Develop and publish level 2 ERAs according to the Queensland Government ERA guidelines and implement appropriate risk mitigations strategies. <p>All precautionary risk management strategies should be developed and implemented in consultation with relevant experts and stakeholders, and performance should be monitored and reported annually in accordance with Condition 3.</p>

Issue	Condition
<p>Harvest Strategies</p> <p>Harvest strategies provide a transparent, evidence-based framework for management of fishery stocks. They seek to avoid overfishing, recover overfished stocks and ensure fisheries remain sustainable. In doing so, harvest strategies provide the Australian community with confidence that commercial fisheries are being managed for long-term biological sustainability and economic profitability, and provide the fishing industry with a more certain operating environment.</p> <p>The Queensland <i>Fisheries Act 1994</i> and <i>Fisheries Regulation 2008</i> (the Regulation) set out the overarching objectives and guidance for managing fisheries. The Regulation includes authorities to take fish, as well as input and output controls for fisheries.</p> <p>Based on the Queensland Harvest Strategy Policy and associated Guidelines (https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable-fisheries-strategy/harvest-strategy), harvest strategies for Queensland fisheries will account for all sources of mortality on species, and address the fishing activities of all sectors; commercial, recreational and traditional. This includes management of fishing related risks to target, byproduct and bycatch species, threatened, endangered and protected species, and habitats, identified through ecological risk assessments. Risk management actions may include fishing catch or effort quotas, spatial closures or gear restrictions.</p> <p>The Department acknowledges that work has commenced to implement harvest strategies in the ECIFFF and other fisheries, and that the Queensland Department of Agriculture and Fisheries anticipate implementing the ECIFFF harvest strategy by January 2020. The Department has been advised by Queensland Department of Agriculture and Fisheries that this harvest strategy will propose individual transferable quotas for key target species and total allowable commercial catch limits for key byproduct, and other species as necessary.</p> <p>The Department considers it important that the harvest strategy includes decision rules and reference points that trigger management actions to mitigate risks to target and non-target species and in particular protected species that have been identified as high risk in the ecological risk assessment process.</p>	<p>Condition 9:</p> <p>The Queensland Department of Agriculture and Fisheries to implement by January 2020 harvest strategies that monitor and manage impacts associated with the East Coast Inshore Fin Fish Fishery on target, byproduct and bycatch (including protected species).</p> <p>The harvest strategy must include decision rules and reference points that trigger management actions to ensure the fishery remains ecologically sustainable.</p> <p>Performance against this strategy must be included in annual reports specified at Condition 3.</p>

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