



Australian Government

Department of the Environment and Energy

**Assessment of the
Queensland Line fishery (Gulf of Carpentaria—
spanish mackerel and other fin fish)**

November 2019

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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 2007*. It forms part of the advice provided to the Minister for the Environment on the fishery in relation to decisions under Parts 13 and 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for the Environment or the Australian Government.

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EXECUTIVE SUMMARY

The Queensland Department of Agriculture and Fisheries (QDAF) submitted an application for the Gulf of Carpentaria Line Fishery (Gulf Line Fishery) on 9 August 2019 for approval under protected species (Part 13) and wildlife trade (Part 13A) provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The application is consistent with the Australian Government *Guidelines for the ecologically sustainable management of fisheries 2nd Edition* (2007) (the Fisheries Guidelines) and also provides updates on the implementation of conditions and recommendations made in the Australian Government's November 2016 assessment.

The Department notes the new regulatory and policy regime for fisheries in Queensland in force under the *Fisheries Act 1994* (Queensland), the *Fisheries (General) Regulation 2019* (Queensland), the *Fisheries (Commercial Fisheries) Regulation 2019* (Queensland), the *Fisheries Declaration 2019* (Queensland), the *Fisheries Quota Declaration 2019* (Queensland) and the *Queensland Sustainable Fisheries Strategy 2017-2027* (QSFS). The new regulations refer to the Gulf Line Fishery as the *Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish)* however this assessment report will refer to it as the Gulf Line Fishery.

The Department of the Environment and Energy assessed the Gulf Line Fishery against the Fisheries Guidelines. A public comment period was open from 19 August 2019 – 19 September 2019. No submissions were received.

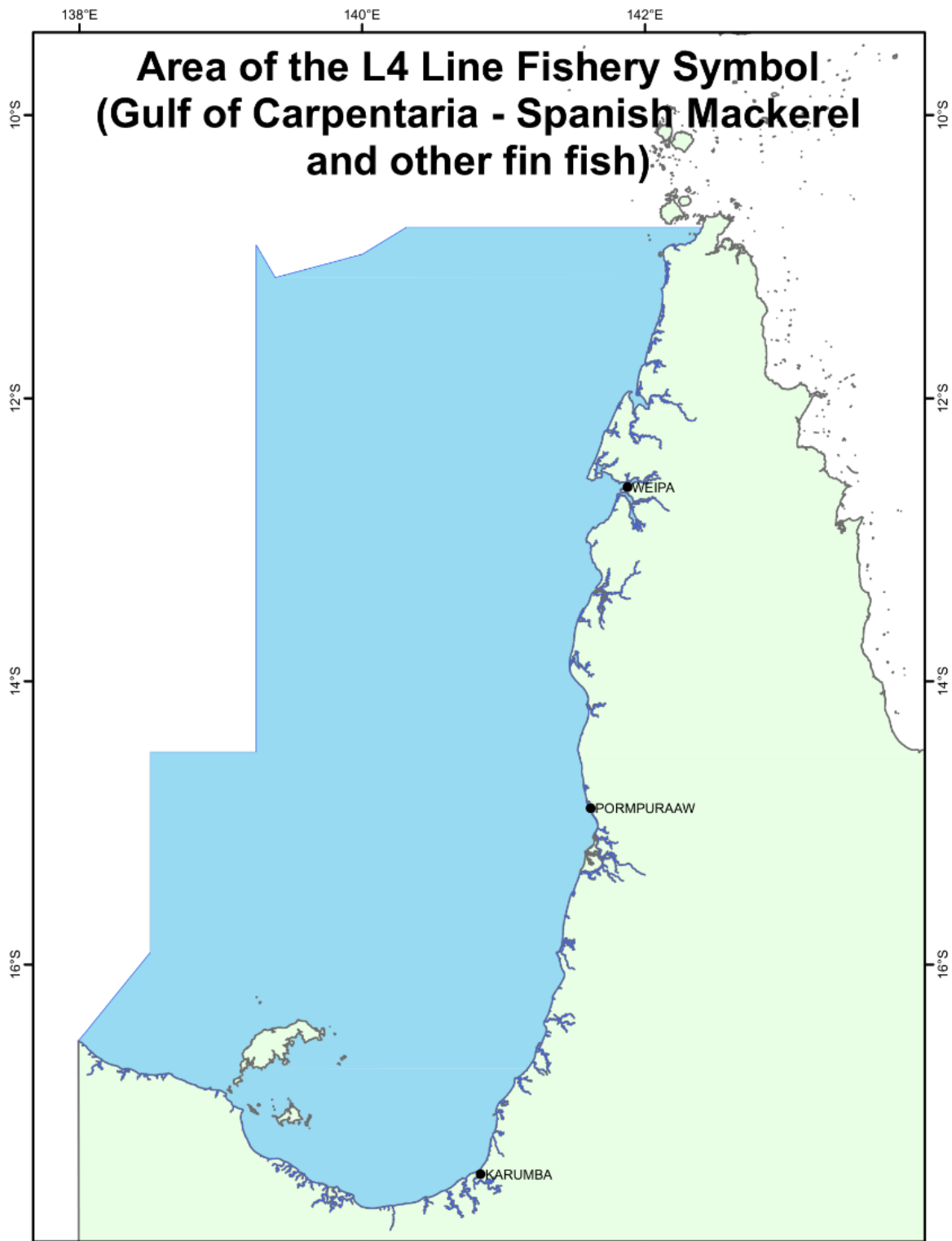
The Gulf Line Fishery

The Gulf Line Fishery is a commercial line fishery which primarily targets Spanish mackerel. Operators are permitted to fish in tidal waters south of latitude S10°48', between the tip of the Cape York Peninsula and the Queensland-Northern Territory border (Map 1).

The Gulf Line Fishery is managed using a range of input and output controls that include gear and vessel restrictions, limited entry, spatial closures, size limits and no take species.

The Gulf Line Fishery operates under an L4 fishery symbol which governs the area of fishing operation, gear type, target species, the types of apparatus permitted for use and management arrangements in the Gulf Line Fishery.

Map 1



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and Fisheries

Co-ord Sys: GCS GDA 1994
Datum: GDA 1994
Units: Degree



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This map represents the approximate fishery area where fishing operations are permitted under the fishery symbol. Please refer to the relevant fisheries legislation (eg Regulation or Management Plan) for the exact boundaries of an area.

Target stocks

The Gulf Line Fishery targets primarily Spanish mackerel with approximately 205 tonnes (t) harvested in 2017. Other species, taken as byproduct, include blacktip whaler and unspecified shark (4t/yr), grey mackerel (2t/yr) and small and large mouth nannygai (4 t/yr). The *National Status of Australian Fish Stocks* (SAFS) 2018 (Langstreth 2018A) classifies Spanish mackerel and other key byproduct stock taken in the Gulf Line Fishery as sustainable.

Non-target species (including protected species) and ecosystems

There is little bycatch in the Gulf Line Fishery as fishing activities are generally designed to target a single species (Spanish mackerel), and the fishing method employed is surface trolling and hand-lining with a limited number of lines and hooks.

All Queensland commercial fishers are required to report all interactions with Species of Conservation Interest (SOCI), including species protected under the EPBC Act, using approved logbooks. These logbooks for the Gulf Line Fishery reveal negligible interactions with Species of Conservation Interest.

A revised Level 1 Ecological Risk Assessment (ERA) that focusses on the level of risk for relevant species will be published for the Gulf Line Fishery by December 2019. It will identify risks to target and bycatch species and ecological components and monitoring and research priorities. It informs the subsequent Level 2 assessment for the Gulf Line Fishery that contains management actions – for instance a harvest strategy for the Gulf Line Fishery. The completion of ERAs is prioritised by the State based on risk.

Although some information is collected via Gulf Line Fishery logbooks to allow risks to certain target species to be assessed, there is no program to collect or assess information on broader ecological impacts associated with the Gulf Line Fishery, including impacts on the majority of bycatch species. This is important if the extent of fishery-related impacts are to be properly considered and managed. Planned improvements to data collection, monitoring and management via the QSFS reforms will increase confidence in the management arrangements for the target species and bycatch species.

Conclusion

The Department of the Environment and Energy recognises that major reform and implementation is underway as part of the Queensland Government's new fisheries regulations and the QSFS, and this will contribute to improved management of the Gulf Line Fishery, and address issues identified in the Department of the Environment and Energy's assessment. The Department also considers it reasonable to apply conditions to help manage the ecological risks associated with the Gulf Line Fishery. Taking into account the Gulf Line Fishery's management measures, the Department of the Environment and Energy considers that the management regime for the Gulf Line Fishery provides for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the Gulf Line Fishery's ecosystem. Improving data collection, validation and monitoring for the Gulf Line Fishery will assist ecological risks to be better assessed, monitored and managed by QDAF.

The proposed conditions require QDAF to:

- a) collaborate with other jurisdictions to pursue consistent and complementary research needs and management arrangements for target species;
- b) improve data collection, validation and monitoring of species caught in the Gulf Line Fishery including any bycatch of protected species;

- c) finalise and implement ERAs and implement any necessary measures to better understand the Gulf Line Fishery's impact on target and non-target species, including protected species; and
- d) provide appropriate identification tools and education to enable fishers to accurately record sharks to the species level.

Based on this assessment, the Department of the Environment and Energy recommends that the Gulf Line Fishery be granted export approval for three years, until 22 November 2022, by declaring the Gulf Line Fishery an approved wildlife trade operation under the EPBC Act. The fishery's inclusion on the List of Exempt Native Specimens will remain valid while a valid wildlife trade operation is in place. Unless a time frame is specified, each condition must be met within the period of the approved wildlife trade operation declaration for the Gulf Line Fishery.

The Department of the Environment and Energy also considers that the existing accreditation of the management regime for the Gulf Line Fishery, granted under Part 13 of the EPBC Act remains valid subject to the conditions outlined in Section 4 of this report. These conditions require QDAF to implement data collection and validation methods that will validate the number of interactions with all bycatch including protected species, and to implement measures to minimise the impacts of fishing on these species.

SECTION 1: ASSESSMENT SUMMARY OF THE LINE FISHERY GULF OF CARPENTARIA—SPANISH MACKEREL AND OTHER FIN FISH) AGAINST *THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES 2ND EDITION (2007)*, CONSISTENT WITH THE EPBC ACT

Guidelines assessment	Meets	Partially meets	Does not meet	Details
Management regime	6/9	3/9		The Department considers that overall, the management regime for the Gulf Line Fishery aims to ensure that fishing is conducted in a manner that does not lead to overfishing.
Principle 1 (target stocks)	6/11 2 (N/A)	3/11		There is acceptable management of the target stock – Spanish mackerel – which comprises more than 97% of the Gulf Line Fishery’s reported harvest in the last five years and is classified as sustainable under the Status of Australian Fish Stocks assessment. A Level 1 ERA (2019) is considering risks to species and communities and a Level 2 ERA will be completed by December 2020 and will consider target stock. Spanish mackerel is included on a schedule of stock assessments to be completed by Queensland with a proposed completion date in 2021. A harvest strategy will be developed once a working group has been formed. However, there is no proposed timeline at this stage.
Principle 2 (bycatch and TEPS)	5/12 (N/A to 5/12)	2/12		Bycatch is low and interactions with threatened, endangered and protected species (TEPS) are considered to be negligible. Accurate reporting will assist in managing the incidental capture of TEP species.
Principle 2 (ecosystem impacts)	3/5	2/5		Based on the available information and the Gulf Line Fishery’s management arrangements, the Department considers that the fishing operations will be managed in a manner that minimises impacts on the structure, productivity, function and biological diversity of the ecosystem.
EPBC requirements	Meets	Partially meets	Does not meet	Details
Part 12	All met			Meets requirements subject to conditions specified at Section 4 of this report.
Part 13	All met			Meets requirements Due to the fishing method employed, interactions with EBPC Act–protected species are considered to be negligible.
Part 13A	All met			Meets requirements subject to conditions specified at Section 4 of this report.

				The Gulf Line Fishery is consistent with the Objects of Part 13A. Declaration of the Gulf Line Fishery as a Wildlife Trade Operation for three years, until 22 November 2022 is recommended, subject to conditions detailed in Section 4 of this report.
Part 16	All met			Meets requirements Appropriate precautionary measures are in place to prevent serious or irreversible environmental damage being caused by the Gulf Line Fishery.

Notes:

Assessment history:

- 1st assessment finalised 2004 – 2 conditions and 11 recommendations.
- 2nd assessment finalised 2007 – 3 conditions and 5 recommendations.
- 3rd assessment finalised 2010 – 3 conditions and 1 recommendation.
- 4th assessment finalised 2013 – 3 conditions and 1 recommendation.
- 5th assessment finalised 2016 – 4 conditions and 1 recommendation.
- 6th assessment finalised 2019 – 13 conditions.

Assessments, approvals and QDAF's application for assessment are available at:

<http://www.environment.gov.au/marine/fisheries/qld/line>

Fishery research and reporting:

- Queensland Department of Agriculture and Fisheries, 2018 (unpublished). 2018 Annual Report to the Department of the Environment and Energy for fishery approvals under the *Environment Protection and Biodiversity Conservation Act 1999*. December 2018.
- Queensland Government Department of Agriculture and Fisheries, Queensland Fisheries Summary October 2018: <https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-compliance/data/sustainability-reporting/queensland-fisheries-summary-report>
- Stock Status Assessments: <https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-compliance/data/sustainability-reporting/stock-status-assessment>
- Status of Key Australian Fish Stocks (SAFS), 2018: <http://www.fish.gov.au/>
- Fisheries data: <http://qfish.fisheries.qld.gov.au/>

Legislation, Plans and Guidelines

- Australian Government Department of the Environment and Energy, 2012. *Marine bioregional plan for the North Marine Region*. <https://www.environment.gov.au/topics/marine/marine-bioregional-plans/north>
- Australian Government Department of Environment and Water Resources, 2007. *Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition*. <http://www.environment.gov.au/marine/publications/guidelines-ecologically-sustainable-management-fisheries>
- *Fisheries Act 1994* (Queensland): <https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-1994-037>
- *Fisheries (General) Regulation 2019* (Queensland): <https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2008-0083>
- *Fisheries (Commercial Fisheries) Regulation 2019* (Queensland): <https://www.legislation.qld.gov.au/view/pdf/inforce/current/sl-2019-0178>
- *Fisheries Declaration 2019* (Queensland) <https://www.legislation.qld.gov.au/view/html/asmade/sl-2019-0076>
- *Fisheries Quota Declaration 2019* (Queensland) <https://www.legislation.qld.gov.au/view/pdf/inforce/2019-05-28/sl-2019-0077>
- Queensland Government Department of Agriculture and Fisheries. *Queensland Sustainable Fisheries Strategy 2017–2027*. <https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable-fisheries-strategy>.

Other relevant documents:

- Queensland Regulation Impact Statement guidelines:
<https://www.treasury.qld.gov.au/publications-resources/ris-system-guidelines/ris-system-guidelines.pdf> [Better Regulation Guidelines](#)
<https://www.treasury.qld.gov.au/resource/queensland-government-guide-better-regulation/>
- Business Queensland Industry Portal - <https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/fisheries-profiles/commercial-line-fisheries/licensing-management>
- Data validation plan - Sustainable fisheries 2018:
<https://publications.qld.gov.au/dataset/queensland-sustainable-fisheries-strategy/resource/dfbddda3-f0e4-47a2-ba25-644b999734d8>
- Fish Species Identification Guide: <https://www.daf.qld.gov.au/fish-identification-information/fish-species-guide>

SECTION 2: DETAILED ANALYSIS OF THE LINE FISHERY (GULF OF CARPENTARIA—SPANISH MACKEREL AND OTHER FIN FISH) AGAINST THE *GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES 2ND EDITION (2007)*

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 Gulf Line Fishery is managed in accordance with the <i>Fisheries Act 1994</i> (Queensland), the <i>Fisheries (General) Regulation 2019</i> (Queensland), the <i>Fisheries (Commercial Fisheries) Regulation 2019</i> (Queensland), the <i>Fisheries Declaration 2019</i> (Queensland) and the <i>Fisheries Quota Declaration 2019</i> (Queensland). Hereafter referred to as <i>Fisheries Act 1994</i> (Queensland) and Fisheries Regulations 2019 (Queensland). The Gulf Line Fishery is managed by the Queensland Fisheries Joint Authority (QFJA). The Gulf Line Fishery is guided by the <i>Queensland Sustainable Fisheries Strategy 2017-2027</i> (QSFS) which sets out the Queensland government’s reform agenda for the next 10 years. Legislation can be found at: www.legislation.qld.gov.au. All relevant management documents are publicly available on or via QDAF’s website.</p>
Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public.	<p>Meets</p> <p>The Gulf Line Fishery management arrangements were originally developed in consultation with industry and relevant stakeholders.</p> <p>The QSFS sets out priorities for future engagement with stakeholders through working groups which will include membership from commercial, recreational and conservation representatives. Fisheries working groups exist for some Queensland fisheries, but there is not one for the Gulf Line Fishery due to the scale of the fishery and its comparatively low levels of effort.</p>
Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process.	<p>Partially meets</p> <p>QDAF has not established a fisheries working group for the Gulf Line Fishery given the scale of the fishery and the comparatively low levels of effort. A working group will be formed after reform processes have been completed for other higher priority fisheries. Working groups typically include a range of expertise and stakeholders from commercial, recreational and charter fishing, conservation, research, seafood marketing and other government sectors. They provide advice on operational aspects of the Gulf Line Fishery and assist with the development of management options.</p> <p>Expertise in QDAF is available to support the fisheries working groups and the stock assessment process. However, there is a limited range of available expertise external to QDAF and limited public interest directly involved with Gulf Line Fishery management.</p>

<p>Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured.</p>	<p>Partially meets</p> <p>General fishery objectives are contained in the <i>Fisheries Act 1994</i>, but not performance criteria to measure the effectiveness of management arrangements.</p> <p>The QSFS contains actions relating to the development of a harvest strategy. The harvest strategy will include performance indicators to measure the Gulf Line Fishery's performance against objectives. A harvest strategy is yet to be developed for the Gulf Line Fishery.</p> <p>The 'Status of Key Australian Fish Stocks' (SAFS) (link above under Notes) assessment considers Spanish mackerel at the whole of stock level and provides a measure of the performance of the Gulf Line Fishery's management arrangements.</p> <p>Monitoring of catch data occurs via the Sustainable Fisheries- Monitoring and Research Plan and through the SAFS process.</p>
<p>Be capable of controlling the level of harvest in the fishery using input and/or output controls.</p>	<p>Meets</p> <p>The Gulf Line Fishery uses input controls to limit harvest. Input controls include: limited entry, boat size restrictions, spatial closures, restriction on number of lines and hooks, legal size and number regulations. The Gulf Line Fishery also utilises line methods (handline, trolling) that limits the level of harvest in the Gulf Line Fishery. Reporting of other catch information, such as catch composition is completed in logbooks.</p>
<p>Contain the means of enforcing critical aspects of the management arrangements.</p>	<p>Meets</p> <p>The <i>Fisheries Act 1994</i> (Queensland) and Fisheries Regulations 2019 (Queensland) contain provisions for the enforcement of the management arrangements for the Gulf Line Fishery. Compliance and enforcement activities are carried out by the Queensland Boating and Fisheries Patrol. A mandatory Vessel Monitoring System monitors and assesses the position and activity of commercial fishing vessels. Compliance capacity will increase in future, according to commitments made in the QSFS.</p>
<p>Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria.</p>	<p>Meets</p> <p>The QSFS sets out clear targets to be achieved by 2020 and 2027 and specific actions to deliver on the targets. Regular performance reviews are built into management and delivery of the QSFS and will apply to the Gulf Line Fishery where appropriate. The QSFS commits to developing a program of routine stock assessments that can be regularly updated (annually or every two years). The program includes regular stock assessments for the key Gulf Line Fishery target species - Spanish mackerel.</p> <p>The sustainability status of Spanish mackerel is assessed every two years as part of the national SAFS reporting process. In 2018 the Gulf of Carpentaria Spanish mackerel stock was classified as a sustainable stock.</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>Meets</p> <p>The management regime is capable of effectively managing the impacts of the Gulf Line Fishery on the wider marine ecosystem. Studies in 2004 and 2006 helped identify impacts within the Gulf Line Fishery. The <i>Ecological Assessment of the Gulf of Carpentaria Line Fishery</i> (Roelofs 2004) addressed the <i>Guidelines for the Ecological Sustainable Management of Fisheries 2nd Edition</i> (2007) and the <i>Ecological Risk Assessment of Queensland-managed Fisheries in the Gulf of Carpentaria</i> (Zeller 2006, referred hereafter as ERA 2006) and examined the potential impacts of Queensland managed fisheries in the Gulf of Carpentaria. The QSFS contains a general ecological risk assessment guideline to manage the impact of fishing activities on the marine environment. A Level 1 ERA is being prepared in line with these guidelines for the Gulf Line Fishery which will highlight knowledge gaps in relation to risks posed by the Gulf Line Fishery to target and non-target species.</p> <p>The QSFS identifies and prioritises improved data collection, monitoring, research and assessment needs to support sustainable fisheries. QDAF has an ongoing state-wide fisheries monitoring program which includes the Gulf of Carpentaria.</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>Partially meets</p> <p>Management arrangements for the Gulf Line Fishery do not include requirements for fishers to comply with Commonwealth threat abatement plans, recovery plans, or bycatch policies or strategies. QDAF has mandatory 'species of conservation interest' reporting, which includes reporting of interactions with EPBC Act listed species. Some of these listed species have recovery plans and threat abatement plans relevant to their protection and recovery.</p> <p>Relevant Commonwealth 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 • Recovery Plan for Marine Turtles in Australia • Sawfish and River Sharks Multispecies Recovery Plan <p>The Gulf Line Fishery has no interaction with listed marine turtles or sawfish, therefore the fishery is not acting inconsistently with these recovery plans.</p> <p>Given the Gulf Line Fishery operates in Commonwealth waters, the Department of the Environment and Energy considers it important that all relevant threat abatement plans, recovery plans, bycatch policies and action strategies be considered in assessing and mitigating ecological risks.</p>

PRINCIPLE 1 - A fishery must be conducted in a manner that does not lead to over-fishing, or for those stocks that are over-fished, the fishery must be conducted such that there is a high degree of probability the stock(s) will recover.	
Objective 1 - The fishery shall be conducted at catch levels that maintain ecologically viable stock levels at an agreed point or range, with acceptable levels of probability.	
Information requirements	
<p>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.</p>	<p>Meets</p> <p>Information relevant to the Gulf Line Fishery is collected at different scales and focus.</p> <p>At the Gulf Line Fishery level, catch composition data is available for the Gulf Line Fishery based on mandatory daily catch and effort recorded in commercial logbooks (1993–2017).</p> <p>The Gulf of Carpentaria is part of an ongoing state-wide fisheries monitoring program. Within the Gulf of Carpentaria, Spanish mackerel has been included on a schedule of stock assessments to be completed by QDAF, with a proposed completion date in 2021. Data on the recreational fishing effort and catch in the Gulf is available as part of the state-wide recreational fishing surveys.</p> <p>Under the QSFS, a fisheries Monitoring and Research Plan outlines standards for improved data collection, guidance on identification of data needs, and resources and priorities. Electronic monitoring of catch is being investigated as part of the QSFS. Electronic monitoring has been shown to significantly improve the quality and reliability of fisher-dependent data in other Australian fisheries and elsewhere internationally.</p>

Assessment	
<p>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.</p>	<p>Meets</p> <p>The target species is assessed on a biennial basis through the biennial SAFS assessments and through QDAF's stock assessment process.</p> <p>Details relating to QDAF's Stock status assessments are here: https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-compliance/data/sustainability-reporting/stock-status-assessment</p> <p>The SAFS stock status assessment report for Spanish mackerel is here: https://www.fish.gov.au/report/253-Spanish-Mackerel-2018</p> <p>The 2018 SAFS assessment has biomass of the stock as unlikely to be depleted and recruitment is unlikely to be impaired based on monitoring data on catch-rate and catch length and age. The assessment has the current level of fishing mortality as unlikely to cause the stock to become recruitment impaired based on Gulf Line Fishery dependent monitoring data. The 2018 assessment classifies the Gulf of Carpentaria Spanish mackerel stock as sustainable.</p> <p>Also see Spanish mackerel east coast fish stock assessment report at: https://www.daf.qld.gov.au/business-priorities/fisheries/monitoring-compliance/data/sustainability-reporting/fish-stock-status-reports</p>
<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>There are several biological stocks of Spanish mackerel across northern Australia. These stocks are commercially harvested in Queensland, Western Australia and the Northern Territory. Moore et al. (2003) identified genetic evidence indicating that there were three biological stocks to the north of Australia. Each jurisdiction will potentially have multiple biological stocks within its boundaries. There is also likely to be a number of smaller biological stocks with limited interaction.</p> <p>Cross jurisdictional communication and collaboration between the management agencies responsible for the commercial harvest of this species is important, to identify and address potential sustainability issues for these stocks.</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>Meets</p> <p>Details of commercial catch are provided in fishers logbooks. There is no catch level quota for the Gulf Line Fishery target species - Spanish mackerel. The commercial take data feeds into the Gulf Line Fishery's stock assessment process. The recreational fishery for this management unit (the Gulf of Carpentaria) is considered minor and the Indigenous catch considered negligible.</p> <p>While the Gulf Line Fishery recreational take of Spanish mackerel is considered minor, the recreational take state-wide for the species is indicated to be a total of 100,000 individuals (Queensland <i>Statewide Recreational Fishing Survey 2013-2014</i>). This survey will release an updated report in 2020 and will feed into stock assessments for other fisheries where the take is much higher.</p> <p>The collection of catch data and assessment of the biology of primary species occurs through ongoing monitoring of priority species in commercial fisheries including for Spanish mackerel in the Gulf of Carpentaria through the SAFS process. The Gulf of Carpentaria Spanish mackerel stock is classified as a sustainable stock (SAFS 2018).</p> <p>While a stock assessment has not been undertaken for the Gulf Line Fishery, these estimates provide an indication of the target fish stock levels.</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>Where information is available, the potential productivity of stocks is considered in stock status assessments that are undertaken. While a stock assessment has not been done for the Gulf of Carpentaria, a stock assessment has been conducted for Spanish mackerel in the East Coast Spanish Mackerel Fishery. Data from this assessment is used to determine productivity estimates for this species.</p> <p>The 2018 SAFS assessment concludes that, based on monitoring data for catch-rate and catch length and age, productivity is unlikely to be impaired. The assessment also concludes that the current level of fishing mortality is unlikely to cause the stock to become recruitment impaired.</p>

Management responses	
<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>The Gulf Line Fishery was included in an Ecological Risk Assessment (ERA) in 2006 examining the potential impacts of Queensland managed fisheries in the Gulf of Carpentaria. The study found that the Gulf Line Fishery posed a moderate risk to regional Spanish mackerel stocks and a negligible risk to a number of byproduct and non-target species. The Gulf Line Fishery does not contain reference points or other harvest limits for Spanish mackerel. Its key target species, Spanish mackerel, is not managed under a quota. The Gulf Line Fishery manages catch and effort using a number of input and output controls including limited entry, gear and vessel restrictions and spatial closures. The management controls are considered adequate for the target stock given the scale of the harvest. Based on the SAFS assessment criteria, Spanish mackerel stocks in the Gulf of Carpentaria are categorised as being sustainably fished.</p> <p>The QSFS identifies the development of harvest strategies as one of the major areas of reform. The development of harvest strategies will be largely driven through stakeholder fisheries working groups established through the QSFS. A fisheries working group has not been established for the Gulf Line Fishery. A group will be established after reform processes have been completed for other higher priority fisheries. There is no proposed timeline at this stage.</p>
<p>1.1.7 There are management strategies in place capable of controlling the level of take.</p>	<p>Meets</p> <p>The Gulf Line Fishery manages catch and effort using a number of input and output controls including limited entry, gear and vessel restrictions and spatial closures.</p> <p>Commercial fishers are required to submit logbook records of their catches. Logbooks provide QDAF with the information to monitor and respond to controlled fishing activity in the commercial sector.</p> <p>The QSFS includes measures designed to improve data collection and aid enforcement of management requirements. These measures include a requirement for all commercial fishing boats to operate within a vessel monitoring system (tracking position and activity) by 2020 and for QDAF to investigate the introduction of electronic monitoring on fishing boats to help validate logbook data records.</p>

<p>1.1.8 Fishing is conducted in a manner that does not threaten stocks of byproduct species.</p>	<p>Meets</p> <p>A number of byproduct species including grey mackerel (<i>Scomberomorus semifasciatus</i>), red emperor (<i>Lutjanus sebae</i>) and golden snapper (<i>Pristipomoides multidens</i>) have been assessed as part of the national SAFS process and have been categorised as sustainably fished within the Gulf Line Fishery (Helmke et al., 2018; Newman et al., 2018; Penny et al., 2018).</p> <p>The largest byproduct components by weight since 2008 include blacktip whaler (shark) and unspecified shark (approx. 4t per year), grey mackerel (approx. 2t per year), small mouth nannygai (approx. 2t) and large mouth nannygai (approx. 2t). When compared to the average harvest of Spanish mackerel in 2017 (205t per year), byproduct in the Gulf Line Fishery makes up a small proportion of retained catch.</p> <p>The Gulf Line Fishery was considered in an Ecological Risk Assessment in 2006 examining the potential impacts of Queensland managed fisheries in the Gulf of Carpentaria (ERA 2006). The study found that the Gulf Line Fishery posed negligible risks to a number of byproduct and non-target species.</p> <p>QDAF is revising the ERA 2006 to guide future risk management in the Gulf Line Fishery. Resulting risk mitigation measures will be incorporated into: a Level 2 ERA assessment to be completed by December 2020; a stock assessment proposed to be completed by 2021; and included in QDAF's monitoring and research plan (depending on risk level). When implemented, these measures are expected to clarify and manage risks to all species, including byproduct species.</p> <p>Overall, there is comparatively very little byproduct in the Gulf Line Fishery as fishing activities are designed to target a single species (Roelofs, 2004) and operators are in attendance for the duration of the fishing event and can therefore, promptly release any product caught that cannot be retained (Roelofs, 2004).</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>Meets</p> <p>Current management arrangements are likely to maintain ecologically viable stock levels in the short-term. Reforms scheduled as part of the QSFS will further improve confidence in the sustainability of the Gulf Line Fishery.</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	
<p>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.</p>	<p>N/A</p> <p>The national SAFS process has categorised Spanish mackerel stocks in the Gulf of Carpentaria as being sustainably fished.</p> <p>The status of the Gulf of Carpentaria mangrove jack stock was listed as overfished in the 2016 national SAFS report and has more recently been upgraded to “recovering”. It has historically been a small byproduct species in the Gulf Line Fishery and infrequently recorded (0.02 tonne in 2015 and 0.19 tonne in 2008). The overfished stock status is believed to be due to significant overfishing between 2003 and 2011 in the Gulf of Carpentaria Developmental Fin Fish Trawl Fishery (Langstreth, 2018B). There has been negligible fishing effort in the Gulf of Carpentaria Developmental Fin Fish Trawl Fishery since that time. The QSFS Monitoring Program is collecting data from the recreational and charter sectors in the Gulf of Carpentaria to assess the progress of this recovery. These measures are sufficient while there is negligible catch of the species by the Gulf Line Fishery and Gulf of Carpentaria Developmental Fin Fish Trawl Fishery.</p>
<p>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.</p>	<p>N/A</p> <p>The target stock Spanish mackerel is not considered overfished and is categorised as sustainably fished.</p> <p>The current management arrangements for mangrove jack are likely to be sufficient while the Gulf Line Fishery is not catching this species and other fisheries like the Gulf of Carpentaria Developmental Fin Fish Trawl Fishery now have negligible fishing effort for this species. Improved data collection, monitoring and management via the proposed harvest strategy and other QSFS reforms will increase confidence for this species.</p>

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

Mandatory logbooks in the Gulf Line Fishery provide some bycatch data. Bycatch is very low as fishing activities are generally designed to target a single species, Spanish mackerel (Roelofs, 2004). Recent reporting in Gulf Line Fishery logbooks up to 2018 for Species of Conservation Interest show bycatch is negligible with one sea snake recorded.

Although little information exists for bycatch compositions within the Gulf Line Fishery, fisheries in neighbouring jurisdictions or other line fisheries (where there is a larger bycatch) provide insight into the kinds of species caught as bycatch in the Gulf Line Fishery. The Northern Territory Spanish Mackerel Fishery records negligible bycatch, with sharks being the most incidentally caught species. For the East Coast Spanish Mackerel Fishery report on bycatch and byproduct risk assessment rated the impact on all listed species as low, noting sharks being an incidentally caught species, but does not provide detailed catch data (DPIF, 2005).

With the exception of a small number of shark and ray species (and species protected under Part 13 of the EPBC Act), there are no requirements to record discarded bycatch species in logbooks.

A lack of accurate information may impede QDAF's capacity to monitor and manage the Gulf Line Fishery's impact on non-target species and the broader ecosystem. The development of a revised ERA and harvest strategy for the Gulf Line Fishery should however, help clarify the data needs and guide any necessary changes to the existing data collection program.

Assessment	
<p>2.1.2 There is a risk analysis of the bycatch with respect to its vulnerability to fishing.</p>	<p>Partially meets</p> <p>There is very little bycatch in the Gulf Line Fishery as fishing activities are generally designed to target a single species, Spanish mackerel (Roelofs, 2004). QDAF states that bycatch in the Gulf Line Fishery is negligible and that fishing operations are being conducted in a manner that does not threaten bycatch species (Roelofs, 2004). Bycatch is also negligible in other Spanish mackerel fisheries where gear type and fishing method are similar to that in the Gulf Line Fishery such as in the Northern Territory and Queensland east coast (ERA, 2006).</p> <p>A risk analysis of bycatch vulnerability has been conducted in the <i>Ecological Risk Assessment of Queensland – managed Fisheries in the Gulf of Carpentaria</i> (ERA 2006). The ERA (2006) concluded that the Gulf Line Fishery posed a minimal to negligible risk to the sustainability of bycatch species. While there has been some risk analysis of bycatch there would be benefit in more current assessments.</p> <p>The ERA (2006) noted little research has been conducted specifically on bycatch in the Gulf Line Fishery.</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>Meets</p> <p>There is negligible risk to capture/mortality of bycatch species due to the fishing method used (surface trolling and hand-lining with limited number of lines and hooks). If unwanted species are caught, they can be quickly released.</p> <p>The Department of the Environment and Energy considers that all reasonable steps should be taken to minimise impacts of fishing on all bycatch species, and to maximise the chance of post-release survival for bycatch, including protected species. The Department of the Environment and Energy notes that QDAF has published a series of guides titled ‘Looking after protected species in Queensland’ on its website. These guides are designed to assist fishers to safely handle protected species and reduce their impacts on these animals when they are caught.</p> <p>The draft Bycatch Action Plan for the Gulf of Carpentaria (Queensland Fisheries Service, 2004) has specific recommended actions to minimise interactions with bycatch species that include identification, release procedures, and codes of conduct.</p>
<p>2.1.4 An indicator group of bycatch species is monitored.</p>	<p>N/A</p> <p>Monitoring of an indicator group of bycatch species is not considered necessary due to the low risk posed by the fishing method used (surface trolling and hand-lining with limited number of lines and hooks).</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>N/A</p> <p>While there are no specific decision rules in place that trigger additional management measures, they are not considered necessary due to the low risk posed to bycatch species from the fishing method used (surface trolling and hand-lining with limited number of lines and hooks).</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>Meets The management arrangements are likely to have a high chance of achieving the objective of fishing being conducted in a manner that does not threaten bycatch.</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>Meets All operators are required to report any interactions with threatened, endangered and protected (TEP) species and there are no threatened ecological communities in the area of the Gulf Line Fishery. The fishing method used in the Gulf Line Fishery (surface trolling and hand-lining with limited number of lines and hooks) is considered to provide a reliable record of the extent of catch of protected species in Species of Conservation Interest logbooks</p>
<p>Assessments</p>	
<p>2.2.2 There is an assessment of the impact of the fishery on endangered, threatened or protected species.</p>	<p>Meets There is very little interaction in the Gulf Line Fishery with TEP species as the fishing activities are primarily designed to target a single species, Spanish mackerel (Roelofs, 2004). Logbook data for the Gulf Line Fishery reveal negligible interactions with TEP species. <i>An Ecological Risk Assessment of Queensland Managed Fisheries in the Gulf of Carpentaria 2006 (ERA 2006)</i> found there was few or no interactions with TEP species and concluded there was negligible risk from the Gulf Line Fishery harvest to TEP species.</p>
<p>2.2.3 There is an assessment of the impact of the fishery on threatened ecological communities.</p>	<p>N/A There are no threatened ecological communities within the area of the Gulf Line Fishery.</p>

Management responses	
2.2.4 There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.	<p>N/A</p> <p>No specific measures are required because line harvesting is a highly selective fishing method and the fishing activities are generally designed to target a single species, Spanish mackerel. The risk of capturing endangered, threatened or protected species is very low.</p> <p>The Department of the Environment and Energy notes that QDAF has published a series of guides titled 'Looking after protected species in Queensland' on its website. These guides are designed to assist fishers to safely handle protected species and reduce their impacts on these animals when they are caught.</p>
2.2.5 There are measures in place to avoid impact on threatened ecological communities.	<p>N/A</p> <p>There are no threatened ecological communities in the area of the Gulf Line Fishery.</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>Meets</p> <p>The management arrangements are likely to have a high chance of achieving the objective of ensuring that fishing is conducted in a manner that avoids mortality of, or injuries to, endangered, threatened or protected species.</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.	<p>Partially meets</p> <p>There is no ongoing information collected on the Gulf Line Fishery's impact on the ecosystem and environment generally. An <i>Ecological Assessment of the Gulf of Carpentaria Line Fishery</i> was completed in 2004 (Roelofs 2004) and an <i>Ecological Risk Assessment of Queensland-managed Fisheries in the Gulf of Carpentaria</i> was completed in 2006 (ERA 2006). The impact on the ecosystem and environment is considered to be low due to the fishing method used (surface trolling and hand-lining).</p>

Assessment

2.3.2 Information is collected and a risk analysis, appropriate to the scale of the fishery and its potential impacts, is conducted into the susceptibility of each of the following ecosystem components to the fishery.

1. Impacts on ecological communities
 - Benthic communities
 - Ecologically related, associated or dependent species
 - Water column communities
2. Impacts on food chains
 - Structure
 - Productivity/flows
3. Impacts on the physical environment
 - Physical habitat
 - Water quality

Partially meets

There is no ongoing information collected on the Gulf Line Fishery's impact on the ecosystem or environment generally.

The [Marine Bioregional Plan for the North Marine Region 2012](#) identified a number of regional priorities relevant to the Gulf Line Fishery for which the extraction of living resources is considered to be a pressure of potential concern. The plan also identified bycatch from commercial fisheries as a pressure of potential concern, and marine debris and illegal, unreported and unregulated fishing as other pressures that exist in the area of the Gulf Line Fishery.

The *Ecological Assessment of the Gulf of Carpentaria Line Fishery* (Roelofs, 2004) and *Ecological Risk Assessment of the Queensland-Managed fisheries in the Gulf of Carpentaria* (ERA 2006) both consider the impacts on the physical environment to be very low due to the gear and fishing method used (surface trolling and hand-lining with limited number of lines and hooks).

A Level 1 ERA considering risks to habitats and communities is drafted and will be published by December 2019. Where risks are identified they will be addressed in a Level 2 ERA for the Gulf Line Fishery for completion by December 2020.

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>Meets</p> <p>It is unlikely that the Gulf Line Fishery would have an adverse impact on the ecosystem due to the fishing method used (surface trolling and hand-lining with limited number of lines and hooks).</p> <p>The ERA 2006 assessed the risk of the impact of the Gulf Line Fishery on the ecosystem as negligible to low. No specific management actions were proposed, however, the ERA encouraged research efforts into detection of fishery impacts on the trophic structure of the Gulf marine ecosystem. Given the Gulf Line Fishery's low impact, and more recent declines in effort, QDAF considers the recommendation to be a low priority and has not undertaken the research.</p> <p>A Level 1 ERA considering risks to habitats and communities is expected to be released by the end of 2019 for the Gulf Line Fishery. A Level 2 ERA will be prepared for the Gulf Line Fishery according to the Queensland Government ERA guidelines by December 2020. The Department of the Environment and Energy considers it important that QDAF address risks identified in their new ERAs.</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>Meets</p> <p>There are no specific decision rules in place that trigger additional management responses. Management responses are not considered necessary due to the low risk posed to the Gulf Line Fishery ecosystem from the fishing method used (surface trolling and hand-lining with limited number of lines and hooks).</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>Meets</p> <p>The management arrangements, considering any precautionary management actions, have a high chance of achieving the objective of ensuring that the Gulf Line Fishery is conducted in a manner that minimises the impact of fishing operations on the ecosystem generally.</p>

SECTION 3: ASSESSMENT OF THE LINE FISHERY (GULF OF CARPENTARIA—SPANISH MACKEREL AND OTHER FIN FISH) AGAINST THE REQUIREMENTS OF THE EPBC ACT

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

Part 12 – Identifying and monitoring biodiversity and making bioregional plans

Section 176 - Bioregional Plans	Comment
<p>(5) Minister must have regard to relevant bioregional plans</p>	<p>Yes - Meets</p> <p>The Marine Bioregional Plan for the North Marine Region 2012 (the Plan) identifies the following key ecological features in the area of the Gulf Line Fishery: the Gulf of Carpentaria Basin, Gulf of Carpentaria Coastal Zone, submerged coral reefs of the Gulf of Carpentaria and the Plateau and saddle north-west of the Wellesley Island. Management of the Gulf of Carpentaria Basin and the Gulf of Carpentaria coastal zone are regional priorities in the Plan.</p> <p>'Extraction of living resources' and 'physical habitat modification' have been identified as pressures of potential concern to these key ecological features. Physical habitat modification is listed as a priority for conservation effort within the Region as it is considered to be 'of concern' as it relates to protected species such as the Australian Snubfin Dolphin, the Indo-Pacific Bottlenose Dolphin and the Indo-Pacific Humpback Dolphin. Bycatch from commercial fisheries is 'of potential concern' in relation to the same dolphin species as well as for sawfish Dugongs, cetaceans, seabirds, Flatback, Loggerhead and Olive Ridley turtles.</p> <p>There is no evidence to suggest any systematic change to species diversity or richness caused by the Gulf Line Fishery, indicating fishing effort is not having a material impact on the food chain or trophic structure. While impact to ecological features from the Gulf Line Fishery are low, improvements to data collection and data validation in order to better assess, monitor and manage these risks continues to be an important area for improved management. Given the low impact fishing methods used in the Gulf Line Fishery and the mitigation measures in place, impact to key ecological features is considered low.</p>

Part 13 – Species and communities

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 - Meets</p> <p>The Gulf Line Fishery is managed in accordance with the <i>Fisheries Act 1994</i> (Queensland) and Fisheries Regulations 2019 (Queensland) 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 – Meets</p> <p>Mandatory logbook reporting for the Gulf Line Fishery contains no reports of interactions with listed threatened species.</p> <p>The ERA (2006) noted there are few or no interactions with species listed under the EPBC Act known in the fishery and therefore the Gulf Line Fishery was considered to be a negligible risk to threatened species. While the risk to listed threatened species is low, there are measures in place to mitigate interactions.</p> <p>Queensland's new Fisheries Regulations 2019 (Queensland) prescribes new rules that apply to Queensland fisheries. The <i>Fisheries (Commercial Fisheries) Regulation 2019</i> (Queensland) stipulates what fish may (and may not) be taken and the fishing method (L4) that applies to the Gulf Line Fishery.</p> <p>The Department of the Environment and Energy notes that QDAF has published a series of guides titled 'Looking after protected species in Queensland' on its website. These guides are designed to assist fishers to safely handle protected species and reduce their impacts on these animals if they are caught.</p> <p>The management regime requires that all reasonable steps are taken to avoid interactions. This includes through gear limitations (maximum of 6 hooks), species targeting practices which limit the take of species other than Spanish mackerel, and the surface trolling and hand-lining fishing method which is tended during fishing, and typically enables species caught incidentally to be released alive.</p>
<p>(g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species?</p>	<p>No – Does not adversely affect threatened species</p> <p>Recent logbooks for the Gulf Line Fishery report no interactions with listed threatened species. The risk of the impact from the Gulf Line Fishery to listed threatened species is considered very low due to the fishing method employed (surface trolling and hand-lining with limited number of lines and hooks). The Department considers the</p>

	current operation of the Gulf Line Fishery is not likely to adversely affect the conservation status of a listed threatened species or a population of a listed threatened species.
Division 2 Migratory species, Section 222A 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 migratory species are not killed or injured as a result of the fishing?	<p>Yes – Meets</p> <p>Mandatory logbook reporting for the Gulf Line Fishery show that the only interaction with migratory species is with silky shark in 2008. While the risk to listed migratory species is low, there are measures in place to mitigate interactions.</p> <p>The ERA (2006) noted there are few or no interactions with species listed under the EPBC Act known in the Gulf Line Fishery and therefore the Gulf Line Fishery was considered to be at negligible risk. In addition, QDAF state that recent reporting on Species of Conservation Interest (SOCI) does not contain any records of interactions with listed migratory species.</p> <p>Queensland’s new Fisheries Regulations 2019 (Queensland) prescribes new rules that apply to Queensland fisheries. The <i>Fisheries (Commercial Fisheries) Regulation 2019</i> (Queensland) stipulates what fish may (and may not) be taken and the fishing method (L4) that applies to the Gulf Line Fishery.</p> <p>The Department of the Environment and Energy notes that QDAF has published a series of guides titled ‘Looking after protected species in Queensland’ (that includes migratory species) on its website. These guides are designed to assist fishers to safely handle protected species and reduce their impacts on these animals if they are caught.</p> <p>The management regime requires that all reasonable steps are taken to avoid interactions, this includes through gear limitations (maximum of 6 hooks), species targeting practices which limit the take of species other than Spanish mackerel, and the surface trolling and hand-lining fishing method which is tended during fishing, and enables species caught incidentally to be released alive.</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>No - Does not adversely affect migratory species</p> <p>Mandatory logbook reporting for the Gulf Line Fishery show that the only interaction with migratory species is with silky shark in 2008. The risk of the impact from the Gulf Line Fishery to listed migratory species is considered very low due to the fishing method employed. The Department considers the current operation of the Gulf Line Fishery is not likely to adversely affect the conservation status of a listed migratory species or a population of that species.</p>

Division 3 Whales and other cetaceans, Section 245 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 cetaceans are not killed or injured as a result of the fishing?</p>	<p>Yes - Meets</p> <p>Mandatory logbook reporting for the Gulf Line Fishery reveal no interactions with whales and other cetaceans. While the risk to whales and other cetaceans is negligible, there are measures in place to mitigate interactions.</p> <p>Queensland's new Fisheries Regulations 2019 (Queensland) prescribes new rules that apply to Queensland fisheries. The <i>Fisheries (Commercial Fisheries) Regulation 2019</i> (Queensland) stipulates what fish may (and may not) be taken and the fishing method (L4) that applies to the Gulf Line Fishery.</p> <p>The Department of the Environment and Energy notes that QDAF has published a series of guides titled 'Looking after protected species in Queensland' (that includes Whales) on its website. These guides are designed to assist fishers to safely handle protected species and reduce their impacts on these animals if they are caught.</p> <p>The management regime requires that all reasonable steps are taken to avoid interactions, this includes through gear limitations (maximum of 6 hooks), species targeting practices which limit the take of species other than Spanish mackerel, and the surface trolling and hand-lining fishing method which is tended during fishing and enables species caught incidentally to be released alive.</p>
<p>(g) And, is the fishery likely to adversely affect the conservation status of a species of cetacean or a population of that species?</p>	<p>No - Does not adversely affect cetaceans</p> <p>Logbooks for the Gulf Line Fishery reveal no interactions with cetaceans. The risk of the impact from the Gulf Line Fishery to cetaceans is considered very low due to the fishing method employed. The Department considers the current operation of the Gulf Line Fishery is not likely to adversely affect the conservation status of a species of cetacean or a population of that species.</p>
Division 4 Listed marine species, Section 265 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 marine species are not killed or injured as a result of the fishing?</p>	<p>Yes – Meets</p> <p>Mandatory logbook reporting for the Gulf Line Fishery reveal negligible interactions with listed marine species, with reporting limited to a to a single sea snake. While the risk to listed marine species is low, there are measures in place to mitigate interactions.</p> <p>The ERA (2006) noted there are few or no interactions with species listed under the EPBC Act known in the Gulf Line Fishery and therefore the Gulf Line Fishery was considered to be at negligible risk.</p>

	<p>Queensland's new Fisheries Regulations 2019 (Queensland) prescribes new rules that apply to Queensland fisheries. The <i>Fisheries (Commercial Fisheries) Regulation 2019</i> (Queensland) stipulates what fish may (and may not) be taken and the fishing method (L4) that applies to the Gulf Line Fishery.</p> <p>The Department of the Environment and Energy notes that QDAF has published a series of guides titled 'Looking after protected species in Queensland' (that includes migratory species) on its website. These guides are designed to assist fishers to safely handle protected species and reduce their impacts on these animals if they are caught.</p> <p>The management regime requires that all reasonable steps are taken to avoid interactions, this includes through gear limitations (maximum of 6 hooks), species targeting practices which limit the take of species other than Spanish mackerel, and the surface trolling and hand-lining fishing method which is tended during fishing and enables species caught incidentally to be released alive.</p>
<p>(g) And, is the fishery likely to adversely affect the conservation status of a listed marine species or a population of that species?</p>	<p>No - Does not adversely affect listed marine species</p> <p>Logbooks for the Gulf Line Fishery reveal negligible interactions with listed marine species, with reporting limited to a single sea snake. The risk of the impact from the Gulf Line Fishery to listed marine species is considered very low due to the fishing method employed. The Department considers the current operation of the Gulf Line Fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species.</p>
<p>Section 303AA Conditions relating to accreditation of plans, regimes and policies</p>	<p>Comment</p>
<p>(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.</p> <p>(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only:</p> <p>(a) during a particular period; or</p> <p>(b) while certain circumstances exist; or</p> <p>(c) while a certain condition is complied with.</p> <p>In such a case, the instrument of accreditation is to specify the period, circumstances or condition.</p>	<p>The Department of the Environment and Energy considers that the accreditation of the Gulf Line Fishery management regime remains valid under sections 208A, 222A, 245 and 265, but should be re-made, subject to the following conditions:</p> <p>Condition 1:</p> <p>The Queensland Department of Agriculture and Fisheries must work with relevant stakeholders to determine an improved data collection and validation approach that can validate the number of interactions with all bycatch, including protected species. Where species are not accurately reported to species-level, data and risks to the species must be managed in a timely and precautionary way.</p> <p>Condition 2:</p> <p>The Queensland Department of Agriculture and Fisheries must ensure all reasonable steps are taken by commercial fishers to maximise the post-capture survival of bycatch. This may include reviewing the effectiveness of existing risk mitigation measures, and monitoring and enforcement activities.</p>

<p>(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.</p>	<p>Not applicable Conditions have not been contravened.</p>
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Part 13A – International movement of wildlife specimens

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 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 303CG - 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>N/A</p> <p>There are negligible CITES species retained in the Gulf Line Fishery.</p> <p>Logbook reporting show some hammerhead shark caught up until 2011 and some guitarfish up until 2008. CITES species are not part of the Gulf Line Fishery's targeted stock or byproduct. The Department of the Environment and Energy considers that the Gulf Line Fishery will not be detrimental to the survival of any taxon to which the CITES specimen belongs.</p>
<ul style="list-style-type: none"> (ii) the recovery in nature of any taxon to which the specimen belongs; or 	<p>N/A</p> <p>There are negligible CITES species retained in the Gulf Line Fishery.</p>
<ul style="list-style-type: none"> (iii) any relevant ecosystem (for example, detriment to habitat or biodiversity); and 	<p>The potential for the Gulf Line Fishery to impact unacceptably and unsustainably on any CITES listed species during the period of the proposed approval is negligible.</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 of the Environment and Energy recommends that specimens that are or are derived from fish or invertebrates taken in the Queensland Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish) in accordance with the management regime in force under the <i>Fisheries Act 1994</i> (Queensland), the Fisheries (General) Regulation 2019 (Queensland), the Fisheries (Commercial Fisheries) Regulation 2019 (Queensland), the Fisheries Declaration 2019 (Queensland) and the Fisheries Quota Declaration 2019 (Queensland) but not including:</p> <p>(a) specimens that belong to taxa listed under section 209 of the EPBC Act (Australia’s List of Migratory Species), or</p> <p>(b) specimens that belong to taxa listed under section 248 of the EPBC Act (Australia’s List of Marine Species), or</p> <p>(c) specimens that belong to eligible listed threatened species, as defined under section 303BC of the EPBC Act, or</p> <p>(d) specimens that belong to taxa listed under section 303CA of the EPBC Act (Australia’s CITES List).</p> <p>remain on the list of exempt native specimens while the Gulf Line Fishery is subject to an approved wildlife trade operation.</p>
<p>(1A) In deciding to amend the LENS, the Minister must rely primarily on outcomes of an assessment under Part 10, Divisions 1 or 2</p>	<p>N/A</p> <p>There have been no assessments of the Gulf Line Fishery under Part 10 Division 1 of the EPBC Act. Part 10 Division 2 of the EPBC Act is also not relevant, as the Gulf Line Fishery is not managed by the Commonwealth.</p>
<p>(1C) The above does not limit matters that may be considered when deciding to amend LENS.</p>	<p>Meets</p> <p>The Department of the Environment and Energy 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>Meets</p> <p>The submission from QDAF was made available on the Department of the Environment and Energy’s website from 16 August 2019 until 17 September 2019 for public comment. No submissions were received.</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 Department of the Environment and Energy recommends the Gulf Line Fishery remain on the list of exempt native specimens while the Gulf Line Fishery is subject to an approved wildlife trade operation.</p>
<p>Section 303FN Approved wildlife trade operation</p>	<p>Comment</p>
<p>(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.</p>	<p>The instrument to declare the Gulf Line Fishery as an approved wildlife trade operation under section 303FN will be registered on the Federal Register of Legislation (FRL) and a link to the instrument made available through the Department of the Environment and Energy's website. Under subsection 56(1) of the <i>Legislation Act 2003</i> (CTH), registration on the FRL meets the requirements for gazettal.</p>
<p>(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is satisfied that:</p> <p>(a) the operation is consistent with the objects of Part 13A of the Act; and</p>	<p>The Gulf Line Fishery is consistent with the Objects of Part 13A – based on the assessment against the Fisheries Guidelines.</p>
<p>(b) the operation will not be detrimental to:</p> <p>(i) the survival of a taxon to which the operation relates; or</p> <p>(ii) the conservation status of a taxon to which the operation relates; and</p> <p>(ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and</p>	<p>Subject to the management measures in place and the conditions proposed in Section 4 of this report, the Gulf Line 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.</p>
<p>(c) if the operation relates to the taking of live specimens that belong to a taxon specified in the regulations – the conditions that, under the regulations,</p>	<p>N/A</p> <p>The <i>Environment Protection and Biodiversity Conservation Regulations 2000</i> (EPBC Regulations) do not specify Crustacea or fish as a class of animal in relation to the welfare of live specimens.</p>

<p>are applicable to the welfare of the specimens are likely to be complied with; and</p>	
<p>(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.</p>	<p>N/A No other conditions are specified in relation to commercial fisheries in the EPBC Regulations.</p>
<p>(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and</p>	<p>Meets Subject to the management measures in place and the conditions proposed in Section 4 of this report, the Gulf Line Fishery will not have a significant impact on any relevant ecosystem.</p>
<p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<p>Meets Subject to the conditions proposed in Section 4 of this report, the management arrangements that will be employed for the Gulf Line Fishery as outlined in the assessment against the Guidelines, are likely to be effective.</p>
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or Territory concerned; and</p> <p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	<p>Meets Species within the Gulf Line Fishery will be protected, conserved and managed in accordance with the <i>Fisheries Act 1994</i> (Queensland) and Fisheries Regulations 2019 (Queensland). This legislation applies throughout Queensland-managed waters.</p> <p>The Department of the Environment and Energy considers that, subject to the conditions proposed in Section 4 of this report, the legislation is likely to be effective.</p>

<p>(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, and only if, the operation is an operation for the taking of specimens and:</p> <p>(a) the operation is a commercial fishery.</p>	<p>Meets The Gulf Line Fishery to which the wildlife trade operation relates is a commercial fishery.</p>
Section 303FR Public consultation	Comment
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <p>(a) setting out the proposal to make the declaration; and</p> <p>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</p> <p>(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.</p> <p>(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.</p>	<p>Meets A public notice, which set out the proposal to declare the Gulf Line Fishery an approved wildlife trade operation and included the application from QDAF, was released for public comment on 16 August 2019 until 17 September 2019, a total period exceeding 20 business days.</p>

<p>(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.</p>	<p>N/A No public comments on the proposal were received.</p>
<p>Section 303FT Additional provisions relating to declarations</p>	<p>Comments</p>
<p>(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.</p>	<p>Any declaration for the Gulf Line Fishery will be made under section 303FN.</p>
<p>(4) The Minister may make a declaration about a plan or operation even though he or she considers that the plan or operation should be the subject of the declaration only:</p> <p>(a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with.</p> <p>In such a case, the instrument of declaration is to specify the period, circumstances or condition.</p>	<p>The wildlife trade operation instrument for the Gulf Line Fishery specifies the standard and any additional conditions applied.</p> <p>The standard conditions applied to commercial Gulf Line Fishery wildlife trade operations include:</p> <ul style="list-style-type: none"> • operation in accordance with the management regime • notifying the Department of the Environment and Energy of changes to the management regime, and • annual reporting in accordance with the requirements of the Fisheries Guidelines.
<p>(8) A condition may relate to reporting or monitoring.</p>	<p>Conditions proposed in Section 4 of this report relate to reporting.</p>
<p>(9) The Minister must, by instrument published in the <i>Gazette</i>, revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.</p>	<p>No conditions have been contravened.</p>

(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 Gulf Line Fishery made under sections 303FN and the conditions under section 303FT will be registered as a notifiable instrument and made available through the Department of the Environment and Energy's website.

Part 16 – Precautionary principle and other considerations in making decisions

Section 391 Minister must consider precautionary principle in making decisions	Comment
<p>(1) Minister must take account of the precautionary principle in making a decision, to the extent that the decision is consistent with other provisions under this Act.</p> <p>(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.</p>	<p>Meets</p> <p>The precautionary principle is incorporated into the Queensland <i>Fisheries Act 1994</i> and is reflected in the ERA processes for the Gulf Line Fishery.</p> <p>Through the implementation of the conditions outlined in Section 4, any potential risks to biodiversity will be further reduced.</p> <p>Reforms are underway as part of the QSFS 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.</p>

SECTION 4: LINE FISHERY (GULF OF CARPENTARIA—SPANISH MACKEREL AND OTHER FIN FISH) – SUMMARY OF ISSUES REQUIRING CONDITIONS, NOVEMBER 2019

Issue	Condition
<p><u>General Management</u></p> <p>Export approval decisions relate to the management arrangements in force at the time of any decision(s) made under the EPBC Act. To ensure that the decision(s) remain valid and export approval continues uninterrupted, the Department of the Environment and Energy (the Department) needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision(s). This includes operational and legislated amendments that may affect the sustainability of the target species or negatively impact on byproduct, bycatch, EPBC Act protected species or ecosystems.</p>	<p>Condition 1:</p> <p>The Queensland Department of Agriculture and Fisheries must ensure that the operation of the Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish) is carried out in accordance with the management regime for the Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish) in force under the <i>Fisheries Act 1994</i> (Queensland), the <i>Fisheries (General) Regulation 2019</i> (Queensland), the <i>Fisheries (Commercial Fisheries) Regulation 2019</i> (Queensland), the <i>Fisheries Declaration 2019</i> (Queensland) and the <i>Fisheries Quota Declaration 2019</i> (Queensland).</p>

Issue	Condition
	<p>Condition 2:</p> <p>The Queensland Department of Agriculture and Fisheries must inform the Department of the Environment and Energy of any intended material changes to the Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish) management arrangements that were assessed and against which the current <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions were made.</p>
<p>Annual Reporting</p> <p>It is important that the Queensland Department of Agriculture and Fisheries report to the Department annually to enable monitoring of the performance and progress of implementation of the conditions and recommendations. Annual reports should be in accordance with Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries 2nd Edition 2007</i> and include a description of the Gulf Line Fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the Gulf Line Fishery, status of target stock, interactions with EPBC Act protected species, impacts of the Gulf Line Fishery on the ecosystem in which it operates and progress in implementing the Department’s conditions and recommendations described in the previous assessment for the Gulf Line Fishery. Electronic copies of the Fisheries 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 must provide reports to the Department of the Environment and Energy annually on the Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish) as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries 2nd Edition (2007)</i>.</p>

Issue	Condition
<p><u>Reliable fisheries data collection, validation and monitoring</u></p> <p>The Department recognises that Gulf Line Fishery targets Spanish mackerel and there is a small level of byproduct. Even so, accurate identification and reporting of retained and discarded catch is important to ensure the impacts of fishing can be assessed, monitored and managed sustainably.</p> <p>The Department of the Environment and Energy acknowledges QDAF’s efforts to help fishers accurately identify and report catch, but also that fishers have difficulty distinguishing some species, which leads to misreported catch or catch reported at higher taxonomic levels.</p> <p>The Queensland Government has begun work under the Sustainable Fisheries Strategy 2017–2027 (QSFS) to ensure sufficient information is collected, to monitor and assess the Gulf Line Fishery’s impact on target and non-target species (including protected species), with a high degree of confidence. Actions under the QSFS include:</p> <ul style="list-style-type: none"> • Develop 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 Gulf Line 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: <ul style="list-style-type: none"> ○ mechanisms to independently validate data on catch and interactions with protected species ○ educational programs to improve submission of accurate catch data (including promoting a move to electronic logbooks) 	<p>Condition 4:</p> <p>By 30 June 2020 the Queensland Department of Agriculture and Fisheries must implement foundational reforms (actions 1.1-1.4) identified in the <i>Queensland Sustainable Fisheries Strategy 2017–2027</i> for the collection of accurate and reliable data. The collection of data must be sufficient, to monitor and assess the impact of the Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish) on target and non-target species, including all eligible listed threatened, migratory, and marine species under the EPBC Act, with a high degree of confidence.</p> <p>Condition 5:</p> <p>The Queensland Department of Agriculture and Fisheries must develop and implement an independent data collection and validation program that includes:</p> <ol style="list-style-type: none"> a) An assessment of the feasibility and complete proof of concept trials for electronic monitoring; and b) Implementation of an independent data collection and validation program for the Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish). This may include electronic monitoring or alternative interim solutions. <p>Condition 6:</p> <p>The Queensland Department of Agriculture and Fisheries must review and implement any necessary improvements to their data collection and validation program, to ensure there is a high degree of confidence in the extent of interactions with all bycatch, including protected species in the Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish). Where species are not accurately reported to species-level, data and risks to these species must be managed in a timely and precautionary way.</p>

Issue	Condition
<ul style="list-style-type: none"> ○ robust systems for checking and forensically analysing incoming data (Action 1.4). <p>Stakeholder fisheries working groups will support specific fishery reforms to be developed and undertaken for the Gulf Line Fishery. Development of harvest strategies will be largely driven through these groups. There is currently no fisheries working group for the GOGLF. A working group will be formed after reform processes have been completed for other higher priority fisheries.</p> <p>A Level 1 Ecological Risk Assessment for the Gulf Line Fishery is drafted and will be published by the end of 2019.</p> <p>The Department of the Environment and Energy considers that accurate identification, data collection and reporting is important to ensure there is appropriate data to assess, monitor and manage Gulf Line Fishery impacts on all retained and discarded species, as well as interactions with protected species. The Department of the Environment and Energy also notes that identification of certain species can be challenging. The Department of the Environment and Energy considers that risks of misidentification should be determined and measures taken to ensure that Gulf Line Fishery data is as accurate and reliable as possible. Where species are not reliably reported to species-level, risks must be managed in a precautionary way.</p>	
<p><u>Management of sharks</u></p> <p>The Department of Environment and Energy notes the low level of shark catch in the Gulf Line Fishery. It also notes management, monitoring and identification improvements: fishers who do not hold an S symbol (Gulf Line Fishery is an L4 fishery) are subject to an in possession limit of 4 sharks; the introduction of a specific logbook for sharks and rays improving data on catch composition of sharks; and a specific shark monitoring project that commenced in 2018 to capture data on shark bycatch and develop methods to assist fishers with identification of sharks. Even so, the Department of the Environment and Energy considers that all shark catch and bycatch should be landed in a form that facilitates accurate identification, to species-level.</p>	<p>Condition 7:</p> <p>The Queensland Department of Agriculture and Fisheries must:</p> <ol style="list-style-type: none"> a) Support fishers to accurately identify and record all sharks at the species-level. This should include assessment and monitoring of reporting performance to identify and target any ongoing improvements. b) Ensure all commercial catch 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 the removal of head, fins, fillets or other morphological features that assist in identifying species prior to landing and the use of on-board, at sea data validation, such as electronic monitoring.

Issue	Condition
<p><u>Determining status of fish stocks</u></p> <p>The key target species in the Gulf Line Fishery is Spanish mackerel, which has comprised more than 97% of the reported Gulf Line Fishery harvest in the last five years. The status of the Gulf of Carpentaria Spanish mackerel stock is assessed every two years in the national Status of Australian Fish Stocks (SAFS) process. In 2018, the SAFS assessed Spanish mackerel in the Gulf of Carpentaria as sustainable.</p> <p>QDAF undertakes annual assessments of stock status to support its management of key species across fisheries. A stock assessment has not been completed for Spanish mackerel in the Gulf of Carpentaria. The Gulf of Carpentaria Spanish mackerel stock has been included on a schedule of stock assessments to be completed by QDAF, with a proposed completion date in 2021.</p>	<p>Condition 8:</p> <p>The Queensland Department of Agriculture and Fisheries must ensure catch composition is sufficiently monitored and understood to ensure that stock impacted by the Gulf Line Fishery is sustainably managed and not overfished or subject to overfishing. The Queensland Department of Agriculture and Fisheries must undertake a stock assessment of the Gulf of Carpentaria Spanish mackerel stock by 31 December 2021.</p>
<p><u>Ecological Risk Assessment and Management</u></p> <p>While the Department notes the impact to ecological features from the Gulf Line Fishery is low, many fisheries have developed evidence-based, precautionary management frameworks to help manage risk and uncertainty, and achieve long-term sustainability and profitability by drawing on available information. Ecological risk assessments (ERAs) are commonly used to identify and prioritise management of risks in fisheries.</p> <p>An <i>Ecological Assessment of the Gulf of Carpentaria Line Fishery</i> (Roelofs 2004) found the main target species Spanish mackerel is managed sustainably with no risk of localised depletion or overfishing. Other byproduct species are considered to be at negligible risk of overfishing as Gulf Line Fishery methods and management measures minimise interactions with species of conservation interest and the operation has very little impact on the region's ecosystem.</p> <p>An Ecological Risk Assessment undertaken later in 2006 for the Gulf of Carpentaria (ERA 2006) found there was a moderate risk to the sustainability of ten target species (that included Spanish mackerel). No bycatch species were found to be at high risk and no high risk factors were identified for the marine ecosystem supporting Gulf of Carpentaria fisheries.</p>	<p>Condition 9:</p> <p>The Queensland Department of Agriculture and Fisheries must:</p> <ul style="list-style-type: none"> a) Publish a Level 1 ecological risk assessment (ERA) for the Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish) by 31 December 2019. a) Develop and publish a Level 2 ERA for the Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish) according to the Queensland Government ERA guidelines, and implement appropriate risk mitigations strategies by 31 December 2020.

Issue	Condition
<p>The Department of the Environment and Energy notes that QDAF has published a series of guides titled 'Looking after protected species in Queensland' on its website. These guides are designed to assist fishers to safely handle protected species and reduce their impacts on these animals when they are caught.</p> <p>QDAF has committed to undertake and publish ERAs for all fisheries according to the following Queensland Government's ERA guidelines (https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable/sustainable-fisheries-strategy/ecological-risk-assessment-guidelines).</p> <ul style="list-style-type: none"> • Level 1 ERA (all ecological components including marine habitats and ecosystem processes): by December 2019 • Level 2 ERA (species of conservation concern including protected species and identified shark species): by December 2020 • Level 2 ERA (target and byproduct species): during 2019–2020 • Level 2 ERA (bycatch species): during 2020–2021. <p>In the case of the Gulf Line Fishery a Level 1 ERA is to be drafted and published by December 2019. It is one of five Level 1 ERAs for fisheries where there is currently no specific working group formed under the QSFS. A Level 2 ERA for the Gulf Line Fishery will be drafted and published according to the Queensland Government ERA guidelines and implement appropriate risk mitigations strategies by December 2020.</p> <p>The Department of the Environment and Energy considers it important that all real and potential risks be managed in a precautionary way throughout the ERA process, based on best available information. These precautionary risk management strategies should be developed and implemented in consultation with relevant experts and stakeholders, and performance monitored and reported annually to the Department of the Environment and Energy.</p>	

<p><u>Harvest Strategies</u></p> <p>The <i>Fisheries Act 1994</i> (Queensland) and Fisheries Regulations 2019 (Queensland) set out the overarching objectives and guidance for managing fisheries, including authorities to take fish and various input and output controls for fisheries.</p> <p>Harvest strategies provide a transparent, evidence-based framework 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 Government’s Harvest Strategy Policy and associated Guidelines require harvest strategies for Queensland fisheries to account for all sources of mortality on species, and address the fishing activities of all sectors; commercial, recreational and traditional (https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable/sustainable-fisheries-strategy/harvest-strategy). This includes management of fishing related risks to target, byproduct and bycatch species, threatened, endangered and protected species, and habitats, identified through ERAs. Risk management actions may include fishing catch or effort quotas, spatial closures or gear restrictions.</p> <p>A harvest strategy will be developed for the Gulf Line Fishery once a stakeholder fisheries working group has been formed. There is currently no fisheries working group for the GOGLF. A fisheries working group will be established after reform processes have been completed for other higher priority fisheries. The Department notes there is no proposed timeline at this stage.</p>	<p>Condition 10:</p> <p>The Queensland Department of Agriculture and Fisheries must prepare a harvest strategy that monitors and manages impacts associated with the Line fishery (Gulf of Carpentaria—spanish mackerel and other fin fish) on target, byproduct and bycatch including protected species in cooperation with a stakeholder-based fishery working group.</p> <p>Performance against this strategy, including proposed timelines for implementation, must be included in annual reports specified at Condition 3.</p>
<p><u>Cross jurisdictional cooperation</u></p> <p>There are at least three biological stocks of Spanish mackerel across northern Australia, which are commercially harvested in Queensland, Western Australia and the Northern Territory. Further genetic structuring within the three identified stocks is apparent and each jurisdiction is likely to have multiple biological management units within its boundaries (Status of Australian Fish Stocks 2018). Cross jurisdictional communication and collaboration between the management</p>	<p>Condition 11:</p> <p>The Queensland Department of Agriculture and Fisheries must continue to collaborate with other jurisdictions to pursue consistent and complementary research needs and management arrangements for target species and advise on how this has informed management actions.</p>

<p>agencies responsible for the commercial harvest of this species is therefore important to identify and address potential sustainability issues for these stocks.</p>	
<p>PART 13 - Issue</p>	<p>Proposed Part 13 Conditions</p>
<p><u>Management of risk to protected species</u></p> <p>Commercial fishers are required to report all protected species interactions to QDAF. The Department of Environment and Energy notes that while the level of reported interaction with listed threatened species in the Gulf Line Fishery is negligible, it is important that this is supported by current and accurate data. It also notes the need to ensure risks to listed threatened species under the EPBC Act are managed in a timely and precautionary way.</p> <p>QDAF is investigating the use of electronic monitoring solutions as part of its QSFS. If implemented, electronic monitoring could help validate logbook records and ensure an accurate record of all interactions. QDAF also has a compliance program capable of investigating and responding to any alleged misreporting. The Department of the Environment and Energy considers it important that there is confidence in the accuracy and reliability of the data used to manage ecological sustainability.</p> <p>The Department of the Environment and Energy considers that improvements to QDAF's current data collection and validation program would be beneficial to effectively assess, monitor and manage the impacts of the Gulf Line Fishery.</p> <p>The Department of the Environment and Energy notes that QDAF has published a series of guides titled 'Looking after protected species in Queensland' on its website. These guides are designed to assist fishers to safely handle protected species and reduce their impacts on these animals when they are caught.</p>	<p>Condition 1:</p> <p>The Queensland Department of Agriculture and Fisheries must work with relevant stakeholders to determine an improved data collection and validation approach that can validate the number of interactions with all bycatch, including protected species. Where species are not accurately reported to species-level, data and risks to the species must be managed in a timely and precautionary way.</p> <p>Condition 2:</p> <p>The Queensland Department of Agriculture and Fisheries must ensure all reasonable steps are taken by commercial fishers to maximise the post-capture survival of bycatch. This may include reviewing the effectiveness of existing risk mitigation measures, and monitoring and enforcement activities.</p>

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