



Australian Government

Department of the Environment and Energy

**Assessment of the
Queensland Schulz Fisheries Pty Ltd**

August 2019

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This report should be attributed as '*Assessment of the Queensland Schulz Fisheries Pty Ltd, August 2019 Commonwealth of Australia 2019*'.

Disclaimer

This document is an assessment carried out by the Department of the Environment and Energy of a commercial fishery against the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*. It forms part of the advice provided to the Minister for the Environment 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 OF THE ASSESSMENT OF THE QUEENSLAND SCHULZ FISHERIES PTY LTD

On 29 May 2019, Schulz Fisheries Pty Ltd submitted a research and developmental fishery application for the Queensland Schulz Fisheries Pty Ltd (the fishery) to the Department of the Environment and Energy for assessment under the provisions of Part 13 (protected species) of the EPBC Act, against the *Australian Government Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*. The fishery's previous wildlife trade operation (WTO) expired on the 26 April 2019.

The fishery

The fishery operates within the southern end of the Queensland East Coast Otter Trawl Fishery (ECOTF). While the ECOTF operates within the Great Barrier Reef World Heritage Area (GBRWHA), the fishery will operate at the southern end of the ECOTF, outside of the GBRWHA. The total number of licences with access to the fishery is one.

The harvest method is via beam trawl, a form of bottom trawling where the net is held open with a solid metal beam that drags along the seafloor. The fishery is managed primarily by input and output controls including limited licencing, regional management, temporal and spatial closures, gear restrictions, vessel restrictions, mandatory use of turtle excluder devices and bycatch reduction devices, catch limits, as well as minimum legal size and possession limits.

Target stocks

The fishery targets short-lived penaeid prawns with a one year life cycle. There is currently no stock assessment of giant scarlet prawns, royal red prawns, giant red prawns or scampi in Queensland. However, biological information will be collected by the fishery and will be used to assess the sustainability of the species in future. In general, most prawn species are considered to be at low risk of becoming overfished due to their high fecundity (high number of young produced) and fast growth rates.

Protected species and ecosystems

Considering the current management measures, the Department considers the operation of the fishery to have very low impacts to the marine environment, ecological communities, threatened, endangered and protected species.

Conclusion

Following this assessment against the Guidelines, the Department considers that the fishery meets the requirements of the EPBC Act subject to recommendations outlined in Section 4. On this basis, the Department has determined that product taken in the fishery does not impact on protected and threatened species.

SECTION 1: ASSESSMENT SUMMARY OF THE QUEENSLAND SCHULZ FISHERIES PTY LTD AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION), CONSISTENT WITH THE EPBC ACT

Guidelines assessment	Meets	Partially meets	Does not meet	Details
Management regime	5 of 9 (1 n/a)	3 of 9		The fishery operated under a management regime that is generally robust, although would be improved by more regular evaluation of performance.
Principle 1 (target stocks)	4 of 11 (2 n/a)	4 of 11	1 of 11	The fishery has implemented measures to control take. Stock assessments are required for target species and measures are required to ensure target stocks are maintained at sustainable levels. Reliable estimates of recreational and Indigenous fishing is not available.
Principle 2 (bycatch and TEPS)	6 of 12 (5 n/a)	1 of 12		The 2015 ecological risk assessment (2015 ERA) described bycatch and protected species interactions in the fishery as generally low. On board electronic monitoring and logbook requirements are in place.
Principle 2 (ecosystem impacts)	1 of 5	4 of 5		The 2015 ERA described the ecological impacts of trawl fishing as generally low. Management arrangements have a moderate likelihood of minimising ecosystem impact, however the introduction of reference points/triggers would enable more responsive management interventions.
EPBC requirements	Meets	Partially meets	Does not meet	Details
Part 12	Meets requirements The fishery operates in the Temperate East Marine regions. Selective fishing methods and fishing areas are unlikely to have an impact on ecological values.			
Part 13	Meets requirements Accreditation currently in place and remains valid.			
Part 16	Meets requirements Given the current and proposed management measures in place in the fishery (as identified at Section 2 of this assessment), the Department considers that the management agency is taking a precautionary approach to managing risks to prevent serious or irreversible environmental damage being caused by this fishery.			

Notes:**Assessment history:**

1st assessment finalised May 2016 – 5 conditions.

Enforcing legislation:

The fishery is managed in accordance with provisions in the following Queensland legislation and regulations available at <https://www.legislation.qld.gov.au/> and Commonwealth legislation is available at <https://www.legislation.gov.au/Details/C2017C00279> (Sourced: August 2019):

- Queensland *Fisheries Act 1994*
- Queensland Fisheries Regulation 2008
- Queensland *Fisheries (East Coast Trawl) Management Plan 2010*
- *Great Barrier Reef Marine Park Act 1975*
- Great Barrier Reef Marine Park Regulations 1983

Fishery reporting:

- Queensland fishery summary report 2018:
https://www.daf.qld.gov.au/_data/assets/pdf_file/0004/1423831/Queensland-Fisheries-Summary-Report.pdf. (Sourced: August 2019)
- Australian Government Great Barrier Reef Marine Park Authority, 2014. Great Barrier Reef Outlook Report 2014, GBRMPA, Townsville: <http://www.gbrmpa.gov.au/our-work/reef-strategies/great-barrier-reef-outlook-report>. (Sourced: August 2019)
- QDAF Fisheries Symbols: <https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/licences/fisheries-symbols> (Sourced: August 2019)

Ecological Risk Assessments:

- The most recent 2015 Ecological Risk Assessment (2015 ERA) for the ECOTF is available at: https://www.daf.qld.gov.au/_data/assets/pdf_file/0004/1402672/Sth-QLD-Trawl-ERA-Final.pdf
- 2012 ERA for the ECOTF
file://upvvirtclus03fs/Users\$/A20524/Profile/Downloads/ECOTF_ERA_Technical_web.pdf

Queensland Sustainable Fisheries Strategy 2017-2027

- Ecological Risk Assessments (Queensland Sustainable Fisheries Strategy 2017-2027):
<https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable-fisheries-strategy/ecological-risk-assessment-guidelines>
- Harvest strategy framework (Queensland Sustainable Fisheries Strategy 2017-2027):
<https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable-fisheries-strategy/harvest-strategy>
- Queensland Sustainable Fisheries Strategy's Trawl fishery group:
<https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable/sustainable-fisheries-strategy/fishery-working-groups/rawl-working-group>

SECTION 2: DETAILED ANALYSIS OF THE QUEENSLAND SCHULZ FISHERIES PTY LTD AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION)

Guidelines criteria	Comment
THE MANAGEMENT REGIME	
The management regime does not have to be a formal statutory fishery management plan as such, and may include non-statutory management arrangements or management policies and programs. The regime should:	
Be documented, publicly available and transparent.	<p>Meets</p> <p>The Schulz Fisheries Pty Ltd's (the fishery) developmental permit will be managed under the Fisheries Act 1994 (QLD), the Fisheries Regulation 2008 (QLD) and previously the Fisheries (East Coast Trawl) Management Plan 2010 (ECOTF management plan) for the Queensland East Coast Otter Trawl Fishery (ECOTF) which the fishery operates in. Provisions for the ECOTF management plan were repealed and incorporated into the Fisheries Regulation 2008 (QLD) in May 2019.</p> <p>These documents are publically available on the Queensland Department of Agriculture and Fisheries website https://www.daf.qld.gov.au/ and Queensland Legislation website https://www.legislation.qld.gov.au.</p> <p>The fishery has a three year developmental permit (managed by the Queensland Department of Agriculture and Fisheries (QDAF)) under the <i>Fisheries Act 1994</i>, and the Queensland Fisheries Regulations 2008. The fishery is authorised to retain a combined annual total catch limit of 120 tonnes (t) of giant scarlet prawns, royal red prawns, giant red prawns and scampi apply.</p> <p>The developmental permit contains some of the following conditions:</p> <ul style="list-style-type: none"> • This permit is issued to Schulz Fisheries Pty Ltd and can only be used on the fishing vessel “Millie Rose” with boat mark FVPN. • The holder shall ensure all operations conducted under this permit are compliant with the Fisheries (East Coast Trawl) Management Plan 2010 (now the Fisheries Regulations 2008 (QLD)). • 120 day effort quota applies with vessel monitoring system in operation during trips. • The holder shall complete the specific “permit” and SOCI logbook and gear description sheet provided on a shot by shot basis when operating under the permit. • Within two months of the completion of each fishing trip provide QDAF data or samples able to be used to derive preliminary biomass and exploitation estimates such as catch rate data, species catch composition, sex ratios and length frequency analysis. • The permit holder must notify QLD Boating and Fisheries Patrol at least 24hrs prior to commencing any activities under this permit. • The permit holder must submit an annual report and annual economic survey to QDAF containing annual catch data for each species, annual boat days, economic information, community engagement and any interactions with other industries. • The permit and its conditions will be reviewed by QDAF every 12 months. QDAF retains the right to revoke the permit at any time if the operation is seen to be having an undue impact on sustainability and the ecosystem, and/or the operator not being compliant to conditions set in the permit.

<p>Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public.</p>	<p>Meets</p> <p>The fishery's management arrangements were developed through consultation with stakeholders. A statutory process is in place for public consultation and advisory committees. A Regulatory Impact Statement (RIS) process is used as the main mechanism for ongoing consultation.</p>
<p>Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process.</p>	<p>Meets</p> <p>Consultation is completed through a formal RIS and/or show cause process –Section 63 of the <i>Fisheries Act 1994 (QLD)</i>. There is ongoing scientific research and management expertise within the QDAF. The Queensland RIS guidelines can be found on the Queensland Department of Treasury website https://www.treasury.qld.gov.au/resources/.</p> <p>The Queensland Sustainable Fisheries Strategy's Trawl fishery working group, formed under the Queensland Sustainable Fisheries Strategy 2017-2027, will develop a harvest strategy for the ECOTF, with the working group aiming to have the harvest strategy in place by 2020.</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>Objectives and performance criteria for the ECOTF are contained in the <i>Fisheries Act 1994 (QLD)</i> and the <i>Fisheries Regulation 2008 (QLD)</i>. As the fishery's developmental permit requires the fishery to operate under the ECOTF management plan (which has been incorporated in the <i>Fisheries Regulation 2008 (QLD)</i>) these objectives and performance criteria are applied to the fishery.</p> <p>Stock status assessments of target stocks can also provide a basis to measure the performance of the fishery. While stock data is collected for this fishery as per permit conditions, QDAF has advised that no stock assessments for target species are being developed in the near future.</p> <p>Future performance monitoring will be integrated into the harvest strategy being developed for the ECOTF via the Queensland Sustainable Fisheries Strategy's Trawl fishery working group.</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 fishery is managed through a complex series of input and output controls that includes (among others): limited licencing, regional management, temporal and spatial closures, gear restrictions, vessel restrictions, mandatory use of turtle excluder devices (TEDs) and bycatch reduction devices (BRDs), and total allowable commercial catch (TACC) limits.</p> <p>Commercial fishers are required to submit logbook records of their catches; this provides QDAF with the means to monitor and then control fishing activity in the commercial sector.</p>
<p>Contain the means of enforcing critical aspects of the management arrangements.</p>	<p>Meets</p> <p>The Queensland legislation includes enforcement provisions; Queensland Boating and Fishing Patrol carry out enforcement on a risk based schedule.</p>

<p>Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria.</p>	<p>Partially meets</p> <p>As the fishery is operating under a developmental permit, performance objectives are yet to be determined. QDAF advises that biological and spatial information collected has not yet been used to determine any future management arrangements, strategies and objectives for the fishery. QDAF advises that the fishery is being managed by liaison directly between QDAF and the operator.</p> <p>The performance of the ECOTF is reviewed on an annual basis along with catch information for target (and some byproduct) stocks being included in the Fisheries Research and Development Corporation's Status of Key Australian Fish Stocks (SAFS) process.</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>Partially meets</p> <p>As the fishery is operating under the developmental permit, adverse impacts on the marine ecosystem have not yet been identified. While trawling is known to alter benthic habitats within the ECOTF, the fishery will be operating in deeper water over sand and muddy substrates. QDAF advises that ongoing electronic monitored data collection will occur during fishing operations.</p> <p>Under the permit QDAF can implement a direction under the <i>Fisheries Act 1994</i> (QLD) to stop fishing, if any adverse effects on the ecosystem are discovered.</p> <p>In June 2017, the Queensland Government released the Queensland Sustainable Fisheries Strategy 2017–2027. The strategy outlines the government's reform agenda for fisheries management over the next ten years. Actions include:</p> <ul style="list-style-type: none"> • harvest strategies for each fishery • satellite tracking on all commercial fishing boats • regional specific fishing rules • using new technologies more effectively
<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>N/A</p> <p>There are no relevant threat abatement plans, recovery plans, policies or strategies that fishery operators are required to comply with in the area of operation.</p>

PRINCIPLE 1 - A fishery must be conducted in a manner that does not lead to over-fishing, or for those stocks that are over-fished, the fishery must be conducted such that there is a high degree of probability the stock(s) will recover.	
Objective 1 - The fishery shall be conducted at catch levels that maintain ecologically viable stock levels at an agreed point or range, with acceptable levels of probability.	
Information requirements	
1.1.1 There is a reliable information collection system in place appropriate to the scale of the fishery. The level of data collection should be based upon an appropriate mix of fishery independent and dependent research and monitoring.	<p>Meets</p> <p>Logbook are present for the fishery. Commercial fishers operating in the fishery have a legal obligation to report information about their fishing activities in a compulsory daily logbook. All trawl fishers must contribute data about their day's catch, the location fished, the apparatus used and any interactions with species of conservation interest.</p> <p>As the fishery is operating under a developmental permit to determine if viable stocks of the target species are present, biological information will be collected and used to inform future management arrangements. Electronic on board monitoring will occur as part of the permit conditions for the developmental licence.</p>
Assessment	
1.1.2 There is a robust assessment of the dynamics and status of the species/fishery and periodic review of the process and the data collected. Assessment should include a process to identify any reduction in biological diversity and /or reproductive capacity. Review should take place at regular intervals but at least every three years.	<p>Does not meet</p> <p>Target species (and some byproduct species) are assessed on a biennial basis through the SAFS and through QDAF's stock status assessment process.</p> <p>There are currently no stock assessments for key target species for this developmental fishery.</p> <p>Permit conditions require that ongoing data collection (including biomass and exploitation estimates such as catch rate data, species catch composition, sex ratios and length frequency) will occur during fishing operations and that data, in the form of annual reports, are submitted to QDAF. The fishery has supplied these reports as required.</p> <p>In 2016 QDAF indicated that annual report catch data will be used in future stock assessments of target species for the fishery. QDAF has further advised that stock assessment effort is being directed to species that are proposed for inclusion in harvest strategies under the Queensland Sustainable Fisheries Strategy 2017–2027. At this stage the trawl working group is focussing on the ECOTF. As the fishery operates under a developmental permit, the fishery is being managed by liaison directly between QDAF and the permit holder.</p>
1.1.3 The distribution and spatial structure of the stock(s) has been established and factored into management responses.	<p>Partially Meets</p> <p>The distribution of giant scarlet prawns (<i>Aristaeopsis edwardsiana</i>), royal red prawns (<i>Haliporoides sibogae</i>) giant red prawns (<i>Aristaeomorpha foliacea</i>), and scampi (<i>Metanephrops</i> spp. and <i>Nephropsis</i> spp), has been determined, however the distribution and spatial structure of the target stocks in QLD has not yet been established. Currently, there are no specific management arrangements for the stocks of these species. The fishery's developmental permit conditions state that catch data collected by the fishery will be factored into future stock management arrangements by QDAF. QDAF has advised that this has not yet occurred for the fishery.</p>

<p>1.1.4 There are reliable estimates of all removals, including commercial (landings and discards), recreational and indigenous, from the fished stock. These estimates have been factored into stock assessments and target species catch levels.</p>	<p>Partially Meets</p> <p>Estimates of removals for the developmental fishery are available via logbook and annual reports.</p> <p>Other commercial sectors that harvest the target species (such as North West Slope Trawl, Coral Sea, Northern Prawn and Commonwealth Trawl sector of the Southern and Eastern Scalefish and Shark fisheries) have mandatory logbook reporting. The data collected, is used to determine appropriate stock levels.</p> <p>There are no estimates available of removals by recreational and Indigenous fishers, however due to the depth of water in which the target species are found, Indigenous and recreational take would be considered low.</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>Currently, there are no sound estimates of the potential productivity of giant scarlet prawns, royal red prawns, giant red prawns or scampi, however, biological data collected by the fishery will be used to determine the productivity of these species in future as per the fishery's permit conditions. Further to this, due to the life history characteristics of prawns and scampi (highly fecund, fast growing) and the 120 t combined annual catch allowed for the target species, it is considered unlikely that the target stocks will become overfished.</p>
<p>Management responses</p>	
<p>1.1.6 There are reference points (target and/or limit), that trigger management actions including a biological bottom line and/or a catch or effort upper limit beyond which the stock should not be taken.</p>	<p>Partially Meets</p> <p>Reference points are articulated through the SAFS process for target species, including the setting of an upper limit. Stock assessments are undertaken for some target species and trigger limits are applied. There are currently no reference points in place for giant scarlet prawns, royal red prawns, giant red prawns or scampi, as these species have not previously been significantly targeted in Queensland.</p> <p>Permit conditions require the fishery to collect biological data that QDAF will include in its stock assessments that will inform future reference points. While these are under development, a 120 t combined annual catch has been established for the target species, to ensure stocks do not become overfished. QDAF will review permit conditions every 12 months to ensure this 120 t combined annual catch limit is appropriate.</p>
<p>1.1.7 There are management strategies in place capable of controlling the level of take.</p>	<p>Meets</p> <p>The level of take is maintained by limits on effort hours, limited entry, spatial closures, gear restrictions and TACC limits as per the fishery's developmental permit conditions and Queensland legislation.</p>
<p>1.1.8 Fishing is conducted in a manner that does not threaten stocks of byproduct species.</p>	<p>Meets</p> <p>There are currently no concerns for by-product species identified in the fishery, due to an effort limit of 120 days per year, as well as on board electronic monitoring of trip catch data.</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>Whilst considering the uncertainties of utilising a developmental permit, constraining harvest through limits on effort and total take should ensure the management response has a high chance of keeping fishing within sustainable levels.</p>

If overfished, go to Objective 2:	
If not overfished, go to PRINCIPLE 2:	
Objective 2 - Where the fished stock(s) are below a defined reference point, the fishery will be managed to promote recovery to ecologically viable stock levels within nominated timeframes.	
Management responses	
1.2.1 A precautionary recovery strategy is in place specifying management actions, or staged management responses, which are linked to reference points. The recovery strategy should apply until the stock recovers, and should aim for recovery within a specific time period appropriate to the biology of the stock.	N/A Not required, as target species are not considered overfished.
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.	N/A No response is required at this time as target species are not considered overfished.
PRINCIPLE 2 - Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.	
Objective 1 - The fishery is conducted in a manner that does not threaten bycatch species.	
Information requirements	
2.1.1 Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.	Meets The fishery is required to submit logbooks to QDAF which ensures reliable information is collected on the composition and abundance of bycatch, including EPBC Act listed protected species. The fishery also employs electronic monitoring during fishing operations which will ensure any bycatch is sufficiently monitored.
Assessment	
2.1.2 There is a risk analysis of the bycatch with respect to its vulnerability to fishing.	Meets The 2015 ecological risk assessment (2015 ERA) of the Southern Queensland East Coast Otter Trawl Fishery and River and Inshore Beam Trawl Fishery determined that current risk levels from trawling are generally low. Results from the assessment indicate that trawling represents a relatively low risk for the majority of ecological subcomponents that were assessed. Of the 171 ecological subcomponents assessed, 87.8% were low to intermediate risk from trawling, and 9.9% of the ecological subcomponents were assessed as high risk, with regional data deficiencies influential in high risk ratings. As the fishery will be operating over mud and sand habitat, and will be required to use bycatch reduction devices, it is expected that the risk to bycatch species will be low.

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>Best practice trawling methods conducted in the fishery such as, short-shot trawls, limited days, and the mandatory use of turtle excluder devices (TED) and bycatch reduction devices (BRD), combined with the depth that the trawling occurs at (depths greater than 250 metres) minimise interactions with bycatch and protected species.</p> <p>The fishery's permit conditions also specify the requirement to have on board electronic monitoring to record every trip. This data is independently reviewed by another party.</p> <p>Protected species interactions are reported to the Department of the Environment and Energy on a quarterly basis. QDAF has confirmed that there has been no reported interactions with endangered, threatened or protected species.</p>
<p>2.1.4 An indicator group of bycatch species is monitored.</p>	<p>N/A</p> <p>There is monitoring of total catch and bycatch species in place for the fishery via on board electronic monitoring and logbooks, however, a bycatch indicator group has not been identified for the fishery.</p> <p>Based on the 2015 ERA, the likelihood of interaction with bycatch in the fishery, or adverse outcomes from interactions, is likely to be insignificant. With a significant annual reduction in fishing effort since 2009, removal of 17 fishery licence symbols under the 2014 east coast structural adjustment buy-back, and the mandatory use of TEDs and BRDs, significant reductions in risk are almost certain under the fishery's operations.</p> <p>All byproduct species caught in the fishery are monitored through reporting and a review by QDAF is triggered if catch levels exceed or reduce by more than 10 per cent of historic averages.</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>see 2.1.4.</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>N/A</p> <p>see 2.1.4</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</p> <p>In accordance with Fisheries Act 1994 (QLD) and the Fisheries Regulation 2008, all interactions with EPBC Act protected species are reported to the Department under a signed Memorandum of Understanding (MOU). In addition, there are no EPBC Act listed threatened ecological communities within the area of the fishery. QDAF has confirmed that there has been no reported interactions with endangered, threatened or protected species for this fishery.</p> <p>Best practice trawling methods conducted in the fishery such as, short-shot trawls, limited days, and the mandatory use of turtle excluder devices (TED) and bycatch reduction devices (BRD), combined with the depth that the trawling occurs at (depths greater than 250 metres) minimise interactions with protected species.</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>Partially Meets</p> <p>The 2015 ERA considers the southern fishing areas and operations of the ECOTF which the fishery resides in. Results from the assessment indicate that trawling represents a relatively low risk for the majority of ecological subcomponents that were assessed. Twenty-one species were assessed as at high or high-intermediate risk of being overfished in the ECOTF.</p> <p>Species groups at relatively high risk are: elegant sea snake (<i>Hydrophis elegans</i>); cuttlefish (<i>Sepia</i> spp.), goatfish (<i>Parupeneus</i> spp.), catsharks (<i>Asymbolus</i> spp., <i>Figaro boardmani</i>), and batoids i.e. skates (<i>Dipturus</i> spp.), Australian butterfly ray (<i>Gymnura australis</i>), eastern shovelnose ray (<i>Aptychotrema rostrata</i>), blackspotted whipray (<i>Himantura astra</i>), maskrays (<i>Neotrygon</i> spp.), stingarees (<i>Trygonoptera testacea</i> and <i>Uropholus</i> spp.). Together these make up only 12% of the 171 bycatch species assessed.</p> <p>The risk posed to these species by the fishery is considered to be negligible as the likelihood of interaction for each of these species is low due to short shot duration (at depths greater than 250 metres), limited entry, slow trawl speed, low catch weights, gear restrictions, area closures, a TACC of 120 t and the mandatory use of TEDs and BRDs.</p>
<p>2.2.3 There is an assessment of the impact of the fishery on threatened ecological communities.</p>	<p>N/A</p> <p>The fishery does not impact or have interactions with any ecological communities due to the fishery's location.</p>
<p>Management responses</p>	
<p>2.2.4 There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.</p>	<p>Meets</p> <p>See 2.1.3</p>
<p>2.2.5 There are measures in place to avoid impact on threatened ecological communities.</p>	<p>N/A</p> <p>No EPBC Act listed threatened ecological communities in the area of the fishery.</p>

<p>2.2.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Meets</p> <p>The management arrangements 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 and avoids or minimises impacts on threatened ecological communities.</p> <p>A condition set by QDAF on the fishery's developmental permit to provide independently reviewed annual reports on total catch composition to QDAF.</p>
<p>Objective 3 - The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally.</p>	
<p>Information requirements</p>	
<p>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>	<p>Partially Meets</p> <p>The fishery has implemented methods for data collection. Logbooks and on board electronic monitoring are in use and data is analysed by an independent body. Protected species interactions are reported to the Department. The most recent 2015 ERA did not assess the impact on ecosystems and the environment generally due to data inadequacies.</p>
<p>Assessment</p>	
<p>2.3.2 Information is collected and a risk analysis, appropriate to the scale of the fishery and its potential impacts, is conducted into the susceptibility of each of the following ecosystem components to the fishery.</p> <ol style="list-style-type: none"> 1. Impacts on ecological communities <ul style="list-style-type: none"> • Benthic communities • Ecologically related, associated or dependent species • Water column communities 2. Impacts on food chains <ul style="list-style-type: none"> • Structure • Productivity/flows 3. Impacts on the physical environment <ul style="list-style-type: none"> • Physical habitat • Water quality 	<p>Meets</p> <p>The 2015 ERA described the potential risk posed by the fishery as low, therefore there are currently no specific management actions in place to mitigate ecosystem damage. However, general management arrangements are in place that will lessen impacts on the ecosystem such as gear controls, BRDs, TEDs and spatial closures.</p> <p>The fishery operates over mud to sand substrates. Observational evidence indicates that beam trawl related physical disturbance is minimal in areas where the fishery occurs, such as mud flats. This is because benthic fauna are characteristically deposit and suspension feeders associated with fine sediments and tidal currents, many of them capable of burrowing to avoid trawl capture.</p>
<p>Management responses</p>	
<p>2.3.3 Management actions are in place to ensure significant damage to ecosystems does not arise from the impacts described in 2.3.1.</p>	<p>Partially Meets</p> <p>Management measures to avoid significant impacts to ecosystems are set by the <i>Fisheries Act 1994</i> (QLD) and the <i>Fisheries Regulation 2008</i> (QLD) in the form of input and output controls for the ECOTF, which the fishery adheres to. The fishery has limited entry, gear restrictions, and a TACC limit, which in return limits the impact on ecosystems. Due to the fishing methods used and low risk of impact, the Department considers the current management arrangements adequate in ensuring there is a low risk of significant damage to ecosystems.</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>Partially meets</p> <p>There are no decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators for the fishery. However, due to the scale of the fishery and low risk of the fishery on the ecosystem it is considered highly unlikely that impacts of a significant level will occur.</p> <p>A condition of the fishery's developmental permit allows for the revocation of the permit if the operation is seen to be having an undue impact on the ecosystem.</p>
<p>2.3.5 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Partially meets</p> <p>The management arrangements implemented by the fishery have a moderate chance of achieving the objective of ensuring that the fishery is conducted in a manner that minimises the impact of fishing operations on the ecosystem generally.</p> <p>The 2015 ERA indicated that risks posed to the ecosystem by the fishery are considered to be negligible, due to short shot duration (at depths greater than 250 metres), limited entry, slow trawl speed, low catch weights, gear restrictions and area closures.</p>

SECTION 3: ASSESSMENT OF THE QUEENSLAND SCHULZ FISHERIES PTY LTD 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 fishery in relation to decisions under Part 13.

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>The Marine bioregional plan for the Temperate East Marine Region (2012) has been considered in the preparation of advice in relation to decisions under section 303DC and section 303FN.</p> <p>Harvesting of living resources and bycatch have been identified as pressures operating within the Temperate East Marine Region in which part of the ECOTF operates. Bycatch reduction devices and turtle exclusion devices are mandatory in this fishery, which has significantly reduced turtle and large species bycatch.</p> <p>Recent research has refined the use of particular bycatch reduction devices to reduce sea snake capture. Extension of these results to industry has been successful in reducing bycatch in the fishery. No target or byproduct species have been assessed as overfished in the Status of Key Australian Fish Stocks (2016) and no principal species were assessed to be at more than intermediate risk from trawling operations in the Ecological Risk Assessment of the <i>Southern Queensland East Coast Otter Trawl Fishery and River & Inshore Beam Trawl Fishery</i>.</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) Does the fishery have an accreditable plan of management, regime or policy?</p>	<p>Yes - The Queensland Schulz Fisheries Pty Ltd's (the fishery) is managed under the <i>Fisheries Act 1994</i> (QLD) and the Fisheries Regulation 2008 (QLD) 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 - The Fisheries Regulation 2008 (QLD) management regime requires individual fishers to take all reasonable steps to ensure that listed migratory species are not killed or injured as a result of the operation. The Fisheries Regulation 2008 (QLD) also prescribes the restrictions on fishing gear that must be employed by the fishery. A number of these restrictions operate to reduce the risk of mortality of listed threatened species potentially encountered in the fishery.</p>

	<p>Restrictions include:</p> <ul style="list-style-type: none"> • bycatch exclusion devices to deflect any large protected species • turtle exclusion devices to deflect turtles <p>Further to the above, the fishery is required to have on board monitoring (cameras) operational for each fishing trip, and data recorded is used to investigate if any interactions with EPBC Act protected species are occurring during fishing operations.</p>
(g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species?	No - Great white sharks may be found in the fishery, however, given the current measures in place for the operation as summarised above, and no interactions being reported, the Department considers the operation of the fishery is not likely to adversely affect the survival or recovery in nature of any 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?	Yes - Measures outlined for listed threatened species (Division 1 (f) in this section of the report) also apply to listed migratory species. Given the available information, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of members of listed migratory species.
(g) And, is the fishery likely to adversely affect the conservation status of a listed migratory species or a population of that species?	No - QDAF indicates that there have been no interactions with listed migratory species. Therefore, the Department considers the current operation of the fishery is not likely to adversely affect the conservation status of a listed migratory species or a population of that species. The Department further considers that the current accreditation under Part 13 of the EPBC Act for the fishery remains valid.
Division 3 Whales and other cetaceans, Section 245 Minister may accredit plans or regimes	
	Comment
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing?	Yes - Measures outlined for listed threatened species (Division 1 (f) in this section of the report) also apply to cetaceans. Given the available information, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of members of whales and other cetaceans.
(g) And, is the fishery likely to adversely affect the conservation status of a species of cetacean or a population of that species?	No - QDAF indicates that there have been no interactions with cetaceans in the fishery. Therefore, the Department considers the current operation of the fishery is not likely to adversely affect the conservation status of a species of cetacean or a population of that species. The Department further considers that the current accreditation under Part 13 of the EPBC Act for the fishery remains valid.
Division 4 Listed marine species, Section 265 Minister may accredit plans or regimes	

	Comment
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing?	Yes - Measures outlined for listed threatened species (Division 1 (f) in this section of the report) also apply to listed marine species. Given the available information, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of members of listed marine species.
(g) And, is the fishery likely to adversely affect the conservation status of a listed marine species or a population of that species?	No - The 2015 ERA for the ECOTF indicates that the fishery has minimal interactions with listed marine species (including syngnathids and sea snakes). Therefore, the Department considers the current operation of the fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species. The Department further considers that the current accreditation under Part 13 of the EPBC Act for the fishery remains valid.
Section 303AA Conditions relating to accreditation of plans, regimes and policies	
	Comment
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	The Department considers that the accreditation of the fishery's management regime remains valid under sections 208A, 222A, 245 and 265.
(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only: (a)during a particular period; or (b)while certain circumstances exist; or (c)while a certain condition is complied with. In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	To satisfy the requirements of sections 265 the Department recommends that the fishery's management regime remain accredited under Part 13 subject to the condition that requires QDAF to work closely with the fishing industry to: <ul style="list-style-type: none"> • reduce the bycatch of sea snakes, including by methods such as trawl nets to be fitted with bycatch reduction devices that are demonstrably capable of minimising the bycatch. • continue to monitor and report on the uptake and correct use of bycatch reduction devices to assist achieving reductions in sea snake bycatch. • increase the accuracy of reporting of EPBC Act protected species interactions in fishers' log books, and • following the progress report outlined above, obtain independent verification of the effectiveness of the bycatch reduction devices in minimising EPBC Act protected species bycatch.
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	N/A

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>Given the current and proposed management measures in place in the fishery (as identified at Section 2 of this assessment), the Department considers that the management agency is taking a precautionary approach to managing risks, to prevent serious or irreversible environmental damage being caused by this fishery.</p>

SECTION 4: QUEENSLAND SCHULZ FISHERIES PTY LTD – SUMMARY OF ISSUES REQUIRING RECOMMENDATIONS, AUGUST 2019

Issue	Recommendation
<p><u>General Management</u> Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of the Environment and Energy (the Department) needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) protected species or the ecosystem.</p>	<p>Recommendation 1: Operation of the Queensland Schulz Fisheries Pty Ltd must be carried out in accordance with the Queensland Department of Agriculture and Fisheries management arrangements in force under the <i>Fisheries Act 1994</i> (QLD) and <i>Fisheries Regulation 2008</i> (QLD).</p> <p>Recommendation 2: The Queensland Department of Agriculture and Fisheries must inform the Department of the Environment and Energy (the Department) prior of any intended material changes to the management arrangements that may affect the Part 13 approval against which EPBC Act decisions are made.</p>
<p><u>Annual Reporting</u> It is important that reports be produced and presented to the Department annually in order for the performance of the fishery and progress in implementing the conditions in this report, and other managerial commitments to be monitored and assessed throughout the life of the declaration. Annual reports should follow Appendix B to the <i>'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition'</i> and include a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with EPBC Act protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing the Department's conditions. Electronic copies of the guidelines are available from the Department's website at http://www.environment.gov.au/resource/guidelines-ecologically-sustainable-management-fisheries.</p>	<p>Recommendation 3: The Queensland Department of Agriculture and Fisheries must provide reports to the Department of Environment and Energy annually as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p>
<p><u>Reliable fisheries monitoring and information collection</u> As this is a developmental fishery, there is limited catch and biological data on target, bycatch and byproduct species. Timely acquisition of this data is important to determine if the operation is ecologically sustainable in the long term. The Department notes that as a condition set in the developmental permit Queensland Schulz Fisheries Pty Ltd utilises on board cameras to collect information which is critical for understanding the impacts the fishery is having on the ecosystem, target species, sharks and bycatch, including EPBC Act protected species. This is an important monitoring measure which will support:</p> <ul style="list-style-type: none"> the completion of stock status assessments for the target species, and 	<p>Recommendation 4: Queensland Schulz Fisheries Pty Ltd, in collaboration with the Queensland Department of Agriculture and Fisheries, must:</p> <ul style="list-style-type: none"> ensure that robust monitoring of target, byproduct and bycatch species, through the use of on board cameras, is undertaken whilst fishing; ensure that on board cameras are installed by an independent, suitably qualified technician so that all catch composition can be captured effectively on all trips; ensure that an independent, suitably qualified individual or individuals examine the on board camera footage after each fishing trip;

Issue	Recommendation
<ul style="list-style-type: none"> • identification of risks to target, byproduct and bycatch species, including protected species (such as sea snakes, turtles and white sharks) <p>Camera footage can also be used to ensure compliance with fisheries regulations. Queensland Schulz Fisheries Pty Ltd has indicated that on board cameras have been installed and camera footage has been monitored by a suitably qualified individual or organisation, as agreed with Queensland Department of Agriculture and Fisheries.</p> <p>The Department therefore considers it important that statistically robust monitoring, through the use of on board cameras, is maintained by Schulz Fisheries Pty Ltd during fishing operations. The on board cameras should be installed by an independent, suitably qualified technician to ensure the cameras are tamper evident. The Department also considers it important that an independent, suitably qualified individual or individuals should examine the camera footage so that a report, which examines the impacts of the fishing operation on bycatch and benthic biota, be presented to the Department after gear trials are completed. Ongoing reporting of bycatch and benthic impacts should then form part of the annual reports to the Department.</p> <p>The Department is aware that Queensland Schulz Fisheries Pty Ltd is continuing working with Queensland Department of Agriculture and Fisheries to reduce potential impacts the fishery has on sharks and rays. Impacts are likely to be mitigated by the continued use of turtle excluder devices (TEDs), which are known to reduce bycatch of large fauna including sharks and rays. The Department considers it important that the fishery continues to implement the use of TEDs for all fishing trips and that any interactions of sharks and rays in the fishery is recorded in log books and included in annual reports to the Department as soon as practicable.</p>	<ul style="list-style-type: none"> • provide a report to the Queensland Department of Agriculture and Fisheries after the gear trial has been completed, which details the impacts of the fishing operation on bycatch and benthic biota; • utilise the results of the gear trial to implement robust stock assessments for target species; and • report all interactions with sharks and rays encountered on fishing trips by including this information in annual reports submitted to Queensland Department of Agriculture and Fisheries during the operation of the three year developmental permit to monitor the effectiveness of turtle excluder devices used in the fishery.

FURTHER INFORMATION

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