



**Australian Government**

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**Department of the Environment**

Assessment of  
**Schulz Fisheries Pty Ltd**  
**(Queensland)**

May 2016

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This report should be attributed as '*Assessment of Schulz Fisheries Pty Ltd, Commonwealth of Australia 2016*'.

### **Disclaimer**

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

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**TABLE 1: SUMMARY OF SCHULZ FISHERIES PTY LTD**

<p><b>Key documents relevant to the fishery</b></p>	<ul style="list-style-type: none"> <li>▪ Queensland <i>Fisheries Act 1994</i></li> <li>▪ Queensland Fisheries Regulation 2008</li> <li>▪ Queensland Fisheries (East Coast Trawl) Management Plan 2010</li> <li>▪ <i>Ecological risk assessment of the East Coast Otter Trawl Fishery in the Great Barrier Reef Marine Park – 2012</i></li> <li>▪ Department of Sustainability, Environment, Water, Population and Communities – <i>Marine Bioregional Plan for the Temperate East Marine Region – 2012</i></li> </ul>
<p><b>Area</b></p>	<p>Schulz Fisheries Pty Ltd will operate within the southern end of the Queensland East Coast Otter Trawl Fishery (ECOTF). The ECOTF includes all tidal waters (excluding estuaries) east of longitude 142° 31.89' east out to the East Coast Offshore Constitutional Settlement boundary between Cape York in the north and the Queensland/ New South Wales border to the south (<b>Figure 1</b>). This covers the M1, M2, T1 and T2 licence areas of the ECOTF. While the ECOTF operates within the Great Barrier Reef World Heritage Area, Schulz Fisheries Pty Ltd will operate at the southern end of the fishery, outside of the Great Barrier Reef World Heritage Area.</p> <div data-bbox="496 916 1201 1937" style="border: 1px solid black; padding: 10px; margin: 10px 0;"> </div> <p><b>Figure 1: Map of the ECOTF showing the T1 fishery area.</b></p>

<p><b>Target Species</b></p>	<p>The ECOTF mainly targets prawn species (banana, tiger, endeavour, bay and greasyback prawns), scallops, bugs (slipper lobster) and squid. Schulz Fisheries Pty Ltd will target five key species of crustaceans which are not listed as key commercial species in the Queensland Fisheries (East Coast Trawl) Management Plan 2010, these species are:</p> <ul style="list-style-type: none"> <li>• giant scarlet prawns (<i>Aristaeopsis edwardsiana</i>)</li> <li>• royal red prawns (<i>Haliporoides sibogae</i>)</li> <li>• giant red prawn (<i>Aristaeomorpha foliacea</i>)</li> <li>• scampi (<i>Metanephrops</i> spp. and <i>Nephropsis</i> spp.)</li> </ul> <p>Giant scarlet prawns have a cosmopolitan distribution, occurring throughout the Atlantic, the Indian Ocean and the Pacific Ocean, and are found in depths ranging 274 – 1850 metres (m), preferring mud bottoms (Holthuis, 1980). Giant scarlet prawns are a species of Aristeid shrimp in which females and males reach maximum carapace lengths of 334 millimetres (mm) and 193 mm, respectively (Tavares, 2002).</p> <p>Royal red prawns are widely distributed around Australia, ranging from Perth, north to Indonesia in the west and from waters east of Bass Strait to southeast Queensland in the east (New South Wales Department of Industry and Investment, 2015). Royal red prawns are most abundant at depths of 400 – 550 m off New South Wales, but can be found in depths of 280 – 825 m. Males and females have carapace lengths of approximately 50 mm and 35 mm, respectively (Bruce et al., 2002).</p> <p>Giant red prawns are widespread in the eastern and western Atlantic, Indian Ocean and western Pacific Ocean, in the waters around Japan, Australia, New Zealand and the Mediterranean Sea. Giant red prawns are most abundant in continental slope waters 350 – 700 m in depth (Holthuis, 1980). Giant red prawns generally inhabit mud habitats and attain a carapace length of 65 mm (D’Onghia et al. 1998)</p> <p>Scampi are mostly distributed across northern Australian waters where they inhabit continental slope waters 238 – 702 m in depth (Griffin and Stoddart, 1995). They generally inhabit mud habitats and attain a carapace length of 75 mm (Rainer, 1992).</p> <p>ECOTF key commercial species can also be taken by Schulz Fisheries Pty Ltd as the company also operates under an ECOTF T1 licence.</p>
<p><b>Fishery status</b></p>	<p>There is currently no assessment of giant scarlet prawns, royal red prawns, giant red prawns or scampi in Queensland, however, biological information will be collected by Schulz Fisheries Pty Ltd 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)</p>

	<p>and fast growth rates.</p> <p>The Queensland Department of Agriculture and Fisheries has advised that a combined annual total catch limit of 120 tonnes (t) of giant scarlet prawns, royal red prawns, giant red prawns and scampi will be in place for the duration of the developmental licence (five years) which will be reviewed at the end of each year.</p> <p>Royal red prawns and scampi have been assessed by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) for Commonwealth managed fisheries. ABARES considers the national stocks of both species to not be overfished and not subject to overfishing due to the low level of current effort. The assessments take into account catch data from other jurisdictions.</p>
<b>Gear</b>	<p>Schulz Fisheries Pty Ltd will use demersal otter trawl gear in either triple or quad net arrangements. The Queensland Fisheries (East Coast Trawl) Management Plan 2010 sets out boat and gear restrictions applicable to each licence category in the ECOTF. Schulz Fisheries Pty Ltd will be required to have operational turtle excluder devices and bycatch reduction devices in all trawl nets.</p>
<b>Season</b>	<p>Schulz Fisheries Pty Ltd will be authorised to operate all year round. For management purposes, the fishing year commences on 1 January and ceases on 31 December of each year.</p>
<b>Take by other sectors</b>	<p>There is currently no take by other sectors under Queensland jurisdiction however, there is some take in the Commonwealth-managed North West Slope Trawl, Coral Sea, Northern Prawn and Commonwealth Trawl sector of the Southern and Eastern Scalefish and Shark fisheries, accounting for approximately 3 t of giant scarlet prawns, 180 t of royal red prawns and 40 t of scampi each year. The New South Wales Ocean Trawl Fishery, historically accounted for approximately 200 t of royal red prawns per year however, more recently, has accounted for less than 10 kilograms (kg) due to a lack of market demand.</p> <p>Currently there is no information on the catch of giant scarlet prawns, royal red prawns, giant red prawns and scampi by Indigenous or recreational fishers however, due to the species occurring in deep water, it is likely there would be a low volume of catch from these sectors.</p>

<p><b>Management arrangements</b></p>	<p>The Schulz Fisheries Pty Ltd developmental permit will be managed under the Queensland Fisheries (East Coast Trawl) Management Plan 2010 and Queensland Fisheries Regulation 1995 which are in force under the Queensland <i>Fisheries Act 1994</i>. The management arrangements for the ECOTF will be applied to this licence and include:</p> <p><u>Input controls</u></p> <ul style="list-style-type: none"> <li>▪ limited entry (only the one licence)</li> <li>▪ maximum effort limit of 120 days per year</li> <li>▪ permanent area closures</li> <li>▪ compulsory Vessel Monitoring System (VMS)</li> <li>▪ temporal closures</li> <li>▪ net restrictions <ul style="list-style-type: none"> <li>– length (varies with licence and area)</li> <li>– mesh size (varies with licence and area)</li> <li>– sweep length (varies with licence and area)</li> <li>– covering net (varies with licence)</li> <li>– ground chains (varies with licence)</li> </ul> </li> <li>▪ boat length restrictions</li> <li>▪ mandatory use of turtle excluder devices and bycatch reduction devices (all trawl nets except try nets)</li> <li>▪ Onboard monitoring (cameras)</li> </ul> <p><u>Output controls for ECOTF species</u></p> <ul style="list-style-type: none"> <li>▪ possession and trip limits for some permitted species</li> <li>▪ total ban on harvesting egg bearing female Balmain bugs, slipper lobsters, champagne lobster, blue swimmer crab and three-spotted crabs</li> <li>▪ minimum shell diameter for saucer scallops (90 mm)</li> <li>▪ minimum carapace lengths for bugs, red champagne lobster, blue swimmer crabs and three-spotted crabs</li> </ul> <p><u>Additional output controls for target species</u></p> <ul style="list-style-type: none"> <li>▪ a combined annual total catch limit of 120 t for giant scarlet prawns, royal red prawns, giant red prawns and scampi (the target species)</li> </ul>
<p><b>Bycatch</b></p>	<p>Bycatch in the ECOTF primarily consists of small finfish, crabs, non-target penaeid prawns, sponges, sea stars, gastropods and other bottom dwelling invertebrate species. Larger bycatch species are usually able to exit through the mandatory turtle excluder devices or bycatch reduction devices.</p> <p>Schulz Fisheries Pty Ltd will be operating in deeper water than other ECOTF operators (250 – 800 m) where the target species are most prevalent. Bycatch is expected to be similar in species makeup but in lower numbers than what is caught in the ECOTF due to the sand and mud substrate.</p>

**Interaction with Protected Species<sup>1</sup>**

The ECOTF interacts with a number of protected species including turtles, sea snakes, sawfish and syngnathids. The introduction of mandatory measures such as the use of turtle excluder devices and bycatch reduction devices in all trawl nets has significantly reduced the capture rate of most of these taxa and the majority are released alive. Sea snake captures remain high, however, new bycatch reduction devices have resulted in lower sea snake interactions in the ECOTF. While Schulz Fisheries Pty Ltd operates within the ECOTF, interactions with protected species is expected to be lower due to Schulz Fisheries Pty Ltd operating in deeper water where the target species are more prevalent and protected species are naturally less abundant.

The *Ecological risk assessment of the East Coast Otter Trawl Fishery in the Great Barrier Reef* assessed two species of sea snake (elegant sea snake and ornate reef sea snake) as being at high risk to trawl operations and two more species (spectacled sea snake and small-headed sea snake) at intermediate risk. The Queensland Department of Agriculture and Fisheries has conducted research into mitigating sea snake interactions in the fishery and has used these results to inform management measures applied to industry. Mandatory measures to further reduce the rate of sea snake capture have been recommended as part of the trawl plan review. Schulz Fisheries Pty Ltd will employ the new bycatch reduction devices to ensure captures of sea snakes are kept to a minimum.

The ECOTF interacts with two species of seahorse, three species of pipefish and one species of pipehorse. All of these species were assessed to be at intermediate risk from trawling operations as bycatch reduction devices are ineffective at excluding these species and they have low post capture survival. However, these species are closely associated with inshore and reef habitats therefore, it is likely interactions will be minimal with the Schulz Fisheries Pty Ltd's operation.

Since the introduction of mandatory turtle excluder devices in the ECOTF, turtle and sawfish captures have been low, with four turtles and one sawfish captured in 2012 with all being released alive. Schulz Fisheries Pty Ltd will employ bycatch excluder devices that ensure bycatch of turtles and sawfish are kept to a minimum.

The area in which the Schulz Fisheries Pty Ltd operation will occur overlaps with an area of ecological importance for great white sharks which are listed as 'endangered' under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). While no interactions have been reported to the Department from the ECOTF, the Schulz Fisheries Pty Ltd operation is utilising a new and developmental licence, therefore it is unclear if interactions with great white sharks will occur whilst fishing. On board monitoring as well as a biological

<sup>1</sup> 'Protected species' means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and listed threatened, listed marine and listed migratory species.



	<p>sampling regime for sharks and rays, will ensure any interactions are accurately recorded and reported to the Department.</p> <p>A Memorandum of Understanding between the Queensland Department of Primary Industries and Fisheries and the Department of the Environment and Heritage for the Reporting of Fisheries Interactions with Protected Species under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Reporting MoU) was signed in 2005 to streamline reporting requirements for interactions with protected species, assisting fishers in meeting their requirements under the EPBC Act. As such, the Reporting MoU reduces the administrative reporting burden on individual fishers and provides for regular reporting of protected species interactions.</p> <p>Unless exceptional circumstances exist, the Department will not take any actions against the authority holders in respect of a failure to meet the seven-day reporting requirement of protected species interactions, if the interaction was recorded in the authority holder's logbook at the time of the interaction and in accordance with the requirements of the Reporting MoU.</p>
<p><b>Ecosystem Impacts</b></p>	<p>The <i>Ecological risk assessment of the East Coast Otter Trawl Fishery in the Great Barrier Reef Marine Park</i> (the ERA) assessed 14 ecosystem processes, all of which were considered to be at low risk from trawling. The ERA further assessed 10 habitat types and their estimated resilience to trawl fishing operations. One habitat type (Habitat 10), in which the Schulz Fisheries Pty Ltd operation overlaps, was assessed to be at high risk due to the lack of information available on the habitat and biota associated with it. This habitat is known to support species such as champagne lobster, Balmain bugs, skates and rays, as well as king prawns. There is even less information available on the deeper water environments adjacent to Habitat 10 areas. While the ERA determined the overall risk of trawling on the ecosystem as low within the Great Barrier Reef Marine Park, the Department considers it important that if bycatch of reef-associated biota (corals and sponges) is apparent, fishing activity should cease until the vessel has moved to an area where there is less risk of catching these sensitive organisms. Schulz Fisheries Pty Ltd has indicated that on-board cameras will be utilised during fishing operations and a biological sampling program for sharks and rays is being developed in collaboration with the Queensland Department of Agriculture and Fisheries.</p> <p>The <i>Marine bioregional plan for the Temperate East Marine Region 2012</i> has identified that there are key ecological features present in the area of the fishery (shelf rocky reefs, canyons on the eastern continental slope and upwelling off Fraser Island) which are also of regional priority and that there are pressures in the area of the fishery from the harvesting of living resources and of bycatch.</p> <p>Bycatch reduction and turtle exclusion devices will be employed by</p>

Schulz Fisheries Pty Ltd which aim to reduce turtle and large species bycatch. Recent research has refined the use of particular bycatch reduction devices to reduce sea snake capture and extension of these results to industry has been reported as successful in reducing bycatch in the fishery.

No target or byproduct species have been classified as overfished in the *Stock status of Queensland's fisheries resources 2012*.

The *Ecological risk assessment of the East Coast Otter Trawl Fishery in the Great Barrier Reef Marine Park* found that current risk levels from trawling are generally low. No principal species were assessed to be at higher than intermediate risk from trawling operations in the Great Barrier Reef Marine Park.

Further to the above, the Queensland Department of Agriculture and Fisheries has advised that a condition on the developmental licence for Schulz Fisheries Pty Ltd allows for the revocation of the licence if the operation is seen to be having an undue impact on the ecosystem.

As Schulz Fisheries Pty Ltd will be operating under a new and developmental licence, assessments for royal red prawn, giant red prawns, giant scarlet prawns and scampi have not been conducted. Biological information collected by Schulz Fisheries Pty Ltd will be used in future to determine appropriate stock management levels. A conservative catch limit of 120 t combined, for the target species also ensures the operation is unlikely to have an undue impact on target stocks.

Schulz Fisheries Pty Ltd will also operate within the Coral Sea Commonwealth Marine Reserve. The Coral Sea Commonwealth Marine Reserve was proclaimed in 2012 under the EPBC Act. The Coral Sea reserve is currently under transitional management arrangements which allow activities to continue within the reserve in accordance with a General Approval and which will apply until a management plan for the reserve is prepared and comes into effect. The Australian Government has commissioned an independent review of the Commonwealth marine reserves proclaimed in 2012; the review has been completed and will inform the development of new management plans. Once a management plan is in place for the Coral Sea Commonwealth Marine Reserve, restrictions to activities, including commercial fishing, may apply based on zoning and management objectives.

<p><b>Impacts on World Heritage property/RAMSAR site</b></p>	<p>As Schulz Fisheries Pty Ltd will be operating outside but directly adjacent to the Great Barrier Reef World Heritage Area, the assessment also considered the possible impacts on the World Heritage values of the Great Barrier Reef World Heritage Area.</p> <p>The Great Barrier Reef Marine Park is subject to spatial zoning arrangements that are designed to protect the biodiversity and health of the marine park. Approximately 33 per cent of the marine park is closed to fishing.</p> <p>The <i>Ecological risk assessment of the East Coast Otter Trawl Fishery in the Great Barrier Reef Marine Park</i> determined that current risk levels from trawling are generally low under current management arrangements and effort levels, but acknowledges that some high risks remain for several byproduct and bycatch species. In particular, 11 species of skates and rays, two species of sea snake and a deepwater habitat in the southern Great Barrier Reef Marine Park were categorised as being at high risk from trawling. As Schulz Fisheries Pty Ltd will be operating outside of the Marine Park area and away from reef habitat, the risk to these species is considered to be low.</p> <p>Due to the gear, size and harvest restrictions in the fishery, the Department considers that an action taken by an individual fisher, acting in accordance with the Queensland Fisheries (East Coast Trawl) Management Plan 2010, would not be expected to have a significant impact on a matter protected by the EPBC Act.</p>
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**Table 2: Assessment of Schulz Fisheries Pty Ltd operation against the Guidelines for the Ecologically Sustainable Management of Fisheries (2nd edition)**

**Summary**

	Meets	Partially meets	Does not meet	Summary
Management regime	6	2		The Schulz Fisheries Pty Ltd operation will be managed under the Queensland Fisheries (East Coast Trawl) Management Plan 2010 which contains objectives and performance criteria. Consultation is completed through a Regulatory Impact Statement process. There is limited consultation in ongoing management issues. Ongoing biological monitoring of target species will occur throughout the licence period. Onboard cameras will be used during operations and a sampling regime will be used to collect information on sharks and rays.
Principle 1 (target stocks)	4	4		Currently there is no assessment of stock status of the target species however, ongoing biological monitoring will ensure information is collected and used to determine stock status. A conservative total combined annual catch limit of 120 tonnes of prawns and scampi and an annual effort limit of 120 days will ensure the stocks are not overfished.
Principle 2 (bycatch and TEPS)	7	1		While there are some risks to bycatch species (including EPBC Act protected species), bycatch reduction devices (BRDs), turtle excluder devices (TEDs), onboard monitoring and a sampling regime for sharks and rays, will ensure the risk to bycatch remains low and that any interactions are reported to the Department. No threatened ecological

				communities are present in the area of the operation.
Principle 2 (ecosystem impacts)	4	1		As Schulz Fisheries Pty Ltd will be utilising BRDs, TEDs and will be fishing over sand and muddy habitats, impacts on the broader ecosystem are considered to be low. The Queensland Department of Agriculture and Fisheries has advised that a condition on the developmental licence for Schulz Fisheries Pty Ltd allows for the revocation of the licence if the operation is seen to be having an undue impact on the ecosystem.

### Detailed analysis

Guidelines for the Ecologically Sustainable Management of Fisheries (2nd edition)	Meets	Partially meets	Does not meet	Comment
<b>THE MANAGEMENT REGIME</b>				
The management regime does not have to be a formal statutory fishery management plan as such, and may include non-statutory management arrangements or management policies and programs. The regime should:				
Be documented, publicly available and transparent	Yes, yes and yes	Documented but not publicly available	No, no and no	Schulz Fisheries Pty Ltd will be managed under the Queensland Fisheries (East Coast Trawl) Management Plan 2010 and the Fisheries Regulation 2008 which are in force under the <i>Fisheries Act 1994</i> . All documents are publicly available on the Queensland Department of Agriculture and Fisheries website <a href="http://www.daff.qld.gov.au">www.daff.qld.gov.au</a>
Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public	Fully open and transparent public process	Consultative, but not open to general public	Developed with no consultation	The new and developmental licence for Schulz Fisheries Pty Ltd will be managed according to the ECOTF management arrangements which were originally developed in consultation with industry and relevant 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.

Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process	Range of expertise and public interests involved	Limited expertise and public interest involved	No external input	Consultation is completed through a formal RIS and/or show cause process under Section 63 of the Queensland <i>Fisheries Act 1994</i> . There is ongoing scientific research and management expertise within the Queensland Department of Agriculture and Fisheries however, there appears to be limited community involvement in ongoing management decisions. The Queensland RIS guidelines can be found on the Queensland Department of Treasury website <a href="https://www.treasury.qld.gov.au/publications-resources/ris-system-guidelines/ris-system-guidelines.pdf">https://www.treasury.qld.gov.au/publications-resources/ris-system-guidelines/ris-system-guidelines.pdf</a>
Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured	Has strategic objectives and performance measures to measure effectiveness	Has general objectives and performance criteria, not regularly used to assess effectiveness	Inadequate or non-existent objectives and performance criteria Management effectiveness not measured	The new and developmental licence for Schulz Fisheries Pty Ltd will be managed under the Queensland Fisheries (East Coast Trawl) Management Plan 2010 which contains objectives and performance criteria to maintain ecologically sustainable development. The management plan stipulates the gear type and any restrictions, such as bycatch reduction devices that must be used when fishing.
Be capable of controlling the level of harvest in the fishery using input and/or output controls	Effective controls in place	Controls have some capacity to limit harvest	Controls do not have capacity to limit harvest	As Schulz Fisheries Pty Ltd will be utilising a new and developmental licence to determine if viable stocks of the target species (giant scarlet prawns, royal red prawns, giant red prawns and scampi) are available, a combined total allowable catch of 120 t for the target species and a total yearly effort limit of 120 days are in place to control the level of harvest. The Queensland Department of Agriculture and Fisheries advises that biological and spatial information will be collected and used to determine any future levels of take if viable stock levels are found.
Contain the means of enforcing critical aspects of the management arrangements	Effective enforcement capability	Limited enforcement capability	No enforcement capability	The Queensland <i>Fisheries Act 1994</i> contains provisions for the enforcement of the management arrangements for the new and developmental licence that Schulz Fisheries Pty Ltd will be utilising. Compliance and enforcement activities are carried out by the Queensland Boating and Fisheries Patrol.

Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria	Regular performance reviews built into management	Performance reviews provided for, but not on regular timeframe	Performance reviews not required	As Schulz Fisheries Pty Ltd will be utilising a new and developmental licence, performance objectives are yet to be determined. The Queensland Department of Agriculture and Fisheries advises that biological and spatial information will be collected and used to determine any future management arrangements, strategies and objectives, if required. The Queensland Department of Agriculture and Fisheries further advises that the annual catch and effort limits will be reviewed at the end of each year.
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	Capable of effective management of impacts on wider marine ecosystem	Limited capability to manage impacts on wider marine ecosystem	No capacity to manage impacts on wider marine ecosystem	As Schulz Fisheries Pty Ltd will be utilising a new and developmental licence, adverse impacts on the marine ecosystem have not yet been identified. While trawling is known to alter benthic habitats within the ECOTF, Schulz Fisheries Pty Ltd will be operating in deeper water over sand and muddy substrates. The Queensland Department of Agriculture and Fisheries advises that ongoing data collection will occur during fishing operations and the Chief Executive Officer (CEO) of the Queensland Department of Agriculture and Fisheries can implement a Direction under the <i>Fisheries Act 1994</i> to stop fishing, if any adverse effects on the ecosystem are discovered.
Requires compliance with relevant threat abatement plans, recovery plans, the National Policy on Fisheries Bycatch, and bycatch action strategies developed under the policy	Compliant with all relevant plans	Partially compliant with relevant plans	Not compliant with relevant plans	N/A – There are no relevant threat abatement plans, recovery plans, policies or strategies that Schulz Fisheries Pty Ltd are required to comply with in the area of operation.

<b>PRINCIPLE 1</b> - A fishery must be conducted in a manner that does not lead to over-fishing, or for those stocks that are over-fished, the fishery must be conducted such that there is a high degree of probability the stock(s) will recover.				
<b>Objective 1</b> - The fishery shall be conducted at catch levels that maintain ecologically viable stock levels at an agreed point or range, with acceptable levels of probability.				
<b>Information requirements</b>				
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.	Up-to-date log books and adequate observer coverage.	Logs present however, data is not adequate or incomplete.	No log books or no observer coverage.	ECOTF fishers are required to complete a logbook at the end of each day and submit that to the Queensland Department of Agriculture and Fisheries within 15 days of the end of each month. As Schulz Fisheries Pty Ltd will be operating within the ECOTF, the company will be required to submit logbooks within the same timeframe. As Schulz Fisheries Pty Ltd will be operating under a new and developmental licence to determine if viable stocks of the target species are present, biological information will be collected and used to inform future management arrangements. The Queensland Department of Agriculture and Fisheries has advised that on board monitoring will occur as part of the permit conditions for the new and developmental licence.
<b>Assessment</b>				
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.	Annual stock assessment or annual surveys.	Stock assessments irregular, or pending, precautionary management.	No planned regular stock assessments or surveys.	As Schulz Fisheries Pty Ltd will be utilising a new and developmental licence, there is currently no assessment of the dynamics and status of the target species in Queensland, however, the Queensland Department of Agriculture and Fisheries advises that ongoing data collection will occur during fishing operations that will be used in future assessments of the fishery.
1.1.3 The distribution and spatial structure of the stock(s) has been established and factored into management responses.	Robust surveys or equivalent research finalised.	Spatial information is collected but yet to be used.	Spatial information unclear.	The distribution of giant scarlet prawns, royal red prawns, giant red prawns and scampi has been determined (see <a href="#">Target Species – Table 1</a> ). Currently, there are no specific management arrangements for the stocks of these species, however, data collected by Schulz Fisheries Pty Ltd will be factored into future management arrangements.



<p><b>1.1.4</b> There are reliable estimates of all removals, including commercial (landings and discards), recreational and indigenous, from the fished stock. These estimates have been factored into stock assessments and target species catch levels.</p>	<p>Robust surveys/ research undertaken, with appropriate management response.</p>			<p>Currently, there are no estimates of removals as fishing has not commenced by Schulz Fisheries Pty Ltd however, biological data collected by Schulz Fisheries Pty Ltd will be used in future assessments of the target species.</p> <p>Other commercial sectors that harvest the target species (see Take by other sectors – Table 1) have mandatory logbook reporting. The data collected, is used to determine appropriate stock levels. Due to the depth of water in which the target species are found, it is likely that Indigenous and recreational take would be considered low.</p>
<p><b>1.1.5</b> There is a sound estimate of the potential productivity of the fished stock/s and the proportion that could be harvested.</p>	<p>Sound estimate of productivity is available.</p>	<p>Productivity is currently being estimated.</p>	<p>No estimate of productivity available.</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 Schulz Fisheries Pty Ltd will be used to determine the productivity of these species in future. 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 within the 3 year life time of an accreditation.</p>
<p><b>Management responses</b></p>				
<p><b>1.1.6</b> There are reference points (target and/or limit), that trigger management actions including a biological bottom line and/or a catch or effort upper limit beyond which the stock should not be taken.</p>	<p>Robust reference points are in place and a trigger response is prescribed.</p>	<p>Reference points under development, or developed but trigger response is not prescribed.</p>	<p>No reference points under development or planned.</p>	<p>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. However, licence conditions will require Schulz Fisheries Pty Ltd to collect biological data that will be factored into 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.</p>
<p><b>1.1.7</b> There are management strategies in place capable of controlling the level of take.</p>	<p>TAC, limited entry.</p>	<p>Limited entry, but strategies could be stronger.</p>	<p>Level of take not adequately controlled.</p>	<p>The Schulz Fisheries Pty Ltd operation will be limited to a 120 t combined total allowable catch for the target species and will fishing effort will be restricted to 120 days per year.</p>

1.1.8 Fishing is conducted in a manner that does not threaten stocks of by-product species.	Effort is relatively low, take of by-product species is low, or impacts on by-product whole stock have been demonstrated to be low.	Effort is moderate, impact on stock of by-product species is moderate or unclear.	Effort is high, take of by-product is also high and likely to impact whole stock, method does not allow effective selection of target vs by-product species.	There are currently no concerns for by-product species identified in the fishery, due to an effort limit of 120 days per year which will limit the amount of fishing per year for Schulz Fisheries Pty Ltd.
(Guidelines 1.1.1 to 1.1.7 should be applied to by-product species to an appropriate level)				
1.1.9 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	No outcome required.	No outcome required.	No outcome required.	Whilst considering the uncertainties of utilising a new and developmental licence, constraining harvest through limits on effort and total take should ensure the management response has a high chance of keeping fishing within sustainable levels.
<b>If overfished, go to Objective 2: If not overfished, go to PRINCIPLE 2:</b>				
<b>Objective 2</b> - Where the fished stock(s) are below a defined reference point, the fishery will be managed to promote recovery to ecologically viable stock levels within nominated timeframes.				
<b>Management responses</b>				
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.	Precautionary recovery strategy in place.	Recovery strategy being developed, but not yet in place.	No recovery strategy under development or in place.	N/A – Currently there are no species considered to be overfished that require a recovery strategy.
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.	Adequate management responses have been implemented.	Management responses have been implemented but are incomplete or inadequate.	No management responses in place.	N/A – See 1.2.1
<b>PRINCIPLE 2</b> - Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.				
<b>Objective 1</b> - The fishery is conducted in a manner that does not threaten bycatch species.				
<b>Information requirements</b>				

<p><b>2.1.1</b> Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.</p>	<p>Up-to-date logbooks and reliable records of bycatch capture.</p>	<p>Log books available but data is incomplete or inadequate.</p>	<p>No log books or log books not up-to-date.</p>	<p>Schulz Fisheries Pty Ltd will be required to submit logbooks to the Queensland Department of Agriculture and Fisheries which will ensure reliable information is collected on the composition and abundance of bycatch, including EPBC Act listed protected species. Schulz Fisheries Pty Ltd will also employ electronic monitoring during fishing operations which will ensure any bycatch is sufficiently monitored.</p>
<p><b>Assessments</b></p>				
<p><b>2.1.2</b> There is a risk analysis of the bycatch with respect to its vulnerability to fishing.</p>	<p>Risk analysis of bycatch vulnerability has been conducted.</p>	<p>Risk analysis is under development.</p>	<p>No risk analysis of bycatch vulnerability has been conducted.</p>	<p>An Ecological risk assessment of the <i>East Coast Otter Trawl Fishery in the Great Barrier Reef Marine Park</i> determined that current risk levels from trawling are generally low. As Schulz Fisheries Pty Ltd 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.</p>
<p><b>Management responses</b></p>				
<p><b>2.1.3</b> Measures are in place to avoid capture and mortality of bycatch species unless it is determined that the level of catch is sustainable (except in relation to endangered, threatened or protected species). Steps must be taken to develop suitable technology if none is available.</p>	<p>Management responses are in place.</p>	<p>Management responses are under development.</p>	<p>No management responses in place.</p>	<p>Schulz Fisheries Pty Ltd will be required to use appropriate bycatch reduction devices and turtle excluder devices to avoid the capture and mortality of bycatch species. Schulz Fisheries Pty Ltd has also indicated that they may reduce the spacing in the turtle excluder devices which would allow smaller shark and ray species to exit the nets. Schulz Fisheries Pty Ltd has further indicated that on deck cameras will be installed and a vessel monitoring system (VMS) will be utilised so that interactions with bycatch can be appropriately monitored.</p>
<p><b>2.1.4</b> An indicator group of bycatch species is monitored.</p>	<p>Monitoring of indicator group of bycatch species in place.</p>	<p>Monitoring of indicator group of bycatch species in place, but incomplete or inadequate.</p>	<p>No monitoring of indicator group of bycatch species in place.</p>	<p>As Schulz Fisheries Pty Ltd will be utilising a new and developmental licence to determine if viable populations of the target species are available, an indicator group of bycatch species has not been identified as yet. However, Schulz Fisheries Pty Ltd has indicated that a monitoring regime is being developed, in collaboration with the Queensland Department of Agriculture and Fisheries, to collect biological information on sharks and rays found during the operation.</p> <p>All by-product species caught in the ECOTF are monitored through a performance measurement system and a review by the Queensland Department of Agriculture and Fisheries is triggered if catch levels exceed or reduce by more than 10 per cent of historic averages,</p>

2.1.5 There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.	Performance measures have been implemented.	Performance measures implemented but inadequate.	No performance measures implemented.	N/A – see 2.1.4
2.1.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	No outcome required.	No outcome required.	No outcome required.	N/A – see 2.1.4
<b>Objective 2</b> - The fishery is conducted in a manner that avoids mortality of, or injuries to, endangered, threatened or protected species and avoids or minimises impacts on threatened ecological communities.				
<b>Information requirements</b>				
2.2.1 Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities.	Up-to-date logbooks and reliable records of interactions with endangered, threatened or protected species and threatened ecological communities.	Log books available, but lacking important or adequate data on interactions with endangered, threatened or protected species and threatened ecological communities.	No records of interactions with endangered, threatened or protected species and threatened ecological communities.	See 2.1.1

<b>Assessments</b>				
<b>2.2.2</b> There is an assessment of the impact of the fishery on endangered, threatened or protected species.	Robust ERA conducted and risks identified as low, or suitable management practices in place.	An ERA is currently being developed.	No ERA has been conducted.	See 2.1.2
<b>2.2.3</b> There is an assessment of the impact of the fishery on threatened ecological communities.	Robust ERA conducted and risks identified as low, or suitable management practices in place.	An ERA is currently being developed.	No ERA has been conducted.	N/A – There are no threatened ecological communities within the area of the Schulz Fisheries Pty Ltd operation.
<b>Management responses</b>				
<b>2.2.4</b> There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.	Mitigation strategy in place to avoid interactions with protected species.	Mitigation strategy for the avoidance of interactions with protected species is under development.	No mitigation strategy in place.	See 2.1.3
<b>2.2.5</b> There are measures in place to avoid impact on threatened ecological communities.	Mitigation strategy in place to avoid impact on threatened ecological communities.	Mitigation strategy for the avoidance of impact on threatened ecological communities under development.	No mitigation strategy in place.	See 2.2.3
<b>2.2.6</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.				The management measures imposed on Schulz Fisheries Pty Ltd should be effective at minimising the impact of fishing operations on protected species.

<b>Objective 3 - The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally.</b>				
<b>Information requirements</b>				
<b>2.3.1</b> Information appropriate for the analysis in 2.3.2 is collated and/or collected covering the fisheries impact on the ecosystem and environment generally.	Robust methods of data collection in place.	Methods of data collection in place, but not resulting in the adequate collection of data.	No data collection methods in place.	Further to the information in 2.1.1, the Queensland Department of Agriculture and Fisheries has advised that onboard monitoring through cameras and a Vessel Monitoring System will be utilised during fishing operations.
<b>Assessment</b>				
<b>2.3.2</b> Information is collected and a risk analysis, appropriate to the scale of the fishery and its potential impacts, is conducted into the susceptibility of each of the following ecosystem components to the fishery. 1. Impacts on ecological communities <ul style="list-style-type: none"> <li>• Benthic communities</li> <li>• Ecologically related, associated or dependent species</li> <li>• Water column communities</li> </ul> 2. Impacts on food chains <ul style="list-style-type: none"> <li>• Structure</li> <li>• Productivity/flows</li> </ul> 3. Impacts on the physical environment <ul style="list-style-type: none"> <li>• Physical habitat</li> <li>• Water quality</li> </ul>	Robust ERA has been conducted.	ERA not considered necessary for the scale of the fishery.	No risk analysis has been considered or conducted.	See 2.1.1 and 2.1.2
<b>Management responses</b>				
<b>2.3.3</b> Management actions are in place to ensure significant damage to ecosystems does not arise from the impacts described in 2.3.1.	Management actions in place.	Management actions being developed.	No management actions in place.	As Schulz Fisheries Pty Ltd will be utilising bycatch reduction devices, turtle excluder devices and will be fishing over sand and muddy habitats, impacts on the broader ecosystem are considered likely to be low. The Queensland Department of Agriculture and Fisheries has advised that a condition on the developmental licence for Schulz Fisheries Pty Ltd allows for the revocation of the licence if the operation is seen to be having an undue impact on the ecosystem. Further to this, Schulz Fisheries Pty Ltd will employ electronic monitoring during fishing operations which will ensure any impacts to the ecosystem are monitored.

<p><b>2.3.4</b> There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a predetermined level, or where action is indicated by application of the precautionary approach.</p>	<p>Performance measures in place.</p>	<p>Performance measures implemented but inadequate.</p>	<p>No performance measures implemented.</p>	<p>As Schulz Fisheries Pty Ltd will be operating under a new and developmental licence, there are currently no decision rules in place to trigger further management responses however, the Queensland Department of Agriculture and Fisheries has advised that a condition on the developmental licence for Schulz Fisheries Pty Ltd allows for the revocation of the licence if the operation is seen to be having an undue impact on the ecosystem.</p>
<p><b>2.3.5</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>No outcome required.</p>	<p>No outcome required.</p>	<p>No outcome required.</p>	<p>The management measures imposed on Schulz Fisheries Pty Ltd should be effective at minimising the impact of fishing operations on the ecosystem generally.</p>

**Table 3: The Department of the Environment’s assessment of Schulz Fisheries Pty Ltd against the requirements of the EPBC Act related to decisions made under Part 13 and Part 13A.**

**Please Note** – the table below is not a complete or exact representation of the EPBC Act. It is intended as a summary of relevant sections and components of the EPBC Act to provide advice on the fishery in relation to decisions under Part 13 and Part 13A. A complete version of the EPBC Act can be found at <http://www.comlaw.gov.au/>.

**Part 13**

<p><b>Division 1 Listed threatened species</b>  <b>Section 208A Minister may accredit plans or regimes</b></p>	<p><b>The Department’s assessment of the Schulz Fisheries Pty Ltd operation</b></p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p>i. made by a State or self-governing Territory; and</p> <p>ii. in force under a law of the State or self-governing Territory;</p> <p>if <b>satisfied</b> that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy 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; and</p>	<p>The Schulz Fisheries Pty Ltd operation will be managed under the Queensland Fisheries (East Coast Trawl) Management Plan 2010 and the Queensland Fisheries Regulation 2008 which are in force under the Queensland <i>Fisheries Act 1994</i>.</p> <p>The Queensland Fisheries (East Coast Trawl) Management Plan 2010, which Schulz Fisheries Pty Ltd will be operating under, was accredited under section 208A (Part 13) of the EPBC Act in November 2013. These management arrangements, described in Table 1, have not significantly changed since this accreditation was granted and still require individual fishers to take all reasonable steps to ensure that listed threatened species are not killed or injured as a result of the operation.</p> <p>The Queensland Fisheries (East Coast Trawl) Management Plan 2010 prescribes the restrictions on fishing gear that must be employed by Schulz Fisheries Pty Ltd. A number of these restrictions operate to reduce the risk of mortality of listed threatened species potentially encountered in the fishery such as turtles, grey nurse shark, great white shark and green sawfish.</p>



<p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the survival or recovery in nature of the species.</p>	<p>Restrictions include:</p> <ul style="list-style-type: none"> <li>• bycatch exclusion devices to deflect any large protected species</li> <li>• turtle exclusion devices to deflect turtles</li> </ul> <p>Further to the above, <b>Condition 4, Table 4</b> will require Schulz Fisheries Pty Ltd to have onboard monitoring (cameras) to investigate if any interactions with EPBC Act protected species are occurring during fishing operations.</p> <p>Given the current measures in place for the operation, summarised above and in Table 1, the Department considers the operation of Schulz Fisheries Pty Ltd is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>
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**Part 13 (cont.)**

<p><b>Division 2 Migratory species</b>  <b>Section 222A Minister may accredit plans or regimes</b></p>	<p><b>The Department's assessment of the Schulz Fisheries Pty Ltd operation</b></p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p>i. made by a State or self-governing Territory; and</p> <p>ii. in force under a law of the State or self-governing Territory;</p> <p>if <b>satisfied</b> that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed migratory species or a population of that species.</p>	<p>The Schulz Fisheries Pty Ltd operation will be managed under the Queensland Fisheries (East Coast Trawl) Management Plan 2010 and the Queensland Fisheries Regulation 2008 which are in force under the Queensland <i>Fisheries Act 1994</i>.</p> <p>The Queensland Fisheries (East Coast Trawl) Management Plan 2010, which Schulz Fisheries Pty Ltd will be operating under, was accredited under section 222A (Part 13) of the EPBC Act in November 2013. These management arrangements, described in Table 1, have not significantly changed since this accreditation was granted and still require individual fishers to take all reasonable steps to ensure that listed migratory species are not killed or injured as a result of the operation.</p> <p>The Queensland Fisheries (East Coast Trawl) Management Plan 2010 prescribes the restrictions on fishing gear that must be employed by Schulz Fisheries Pty Ltd. A number of these restrictions operate to reduce the risk of mortality of listed migratory species potentially encountered in the fishery such as turtles and sawfish.</p> <p>Restrictions include:</p> <ul style="list-style-type: none"> <li>• bycatch exclusion devices to deflect any large protected species</li> <li>• turtle exclusion devices to deflect turtles</li> </ul> <p>Given the current measures in place for the operation, summarised above and in Table 1, the Department considers the operation of Schulz Fisheries Pty Ltd is not likely to adversely affect the conservation status of a listed migratory species or a population of</p>

	that species.
<b>Part 13 (cont.)</b>	
<b>Division 3 Whales and other cetaceans</b> <b>Section 245 Minister may accredit plans or regimes</b>	<b>The Department's assessment of the Schulz Fisheries Pty Ltd operation</b>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p>i. made by a State or self-governing Territory; and</p> <p>ii. in force under a law of the State or self-governing Territory;</p> <p>if <b>satisfied</b> that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a species of cetacean or a population of that species.</p>	<p>The Schulz Fisheries Pty Ltd operation will be managed under the Queensland Fisheries (East Coast Trawl) Management Plan 2010 and the Queensland Fisheries Regulation 2008 which are in force under the Queensland <i>Fisheries Act 1994</i>.</p> <p>The Queensland Fisheries (East Coast Trawl) Management Plan 2010, which Schulz Fisheries Pty Ltd will be operating under, was accredited under section 245 (Part 13) of the EPBC Act in November 2013. These management arrangements, described in Table 1, have not significantly changed since this accreditation was granted and still require individual fishers to take all reasonable steps to ensure that whales and cetaceans are not killed or injured as a result of the operation.</p> <p>Given there have been no interactions with whales or cetaceans reported to the Department by Queensland East Coast Otter Trawl Fishery operators and due to the depth of water Schulz Fisheries Pty Ltd will operate in, it is considered unlikely that interactions with whales and cetaceans will occur. Therefore, the Department considers the Schulz Fisheries Pty Ltd operation is not likely to adversely affect the conservation status of a species of whale or cetacean or a population of that species.</p>

**Part 13 (cont.)**

<p><b>Division 4 Listed marine species</b> <b>Section 265 Minister may accredit plans or regimes</b></p>	<p><b>The Department's assessment of the Schulz Fisheries Pty Ltd operation</b></p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p>i. made by a State or self-governing Territory; and</p> <p>ii. in force under a law of the State or self-governing Territory;</p> <p>if <b>satisfied</b> that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing; and</p>	<p>The Schulz Fisheries Pty Ltd operation will be managed under the Queensland Fisheries (East Coast Trawl) Management Plan 2010 and the Queensland Fisheries Regulation 2008 which are in force under the Queensland <i>Fisheries Act 1994</i>.</p> <p>The Queensland Fisheries (East Coast Trawl) Management Plan 2010, which Schulz Fisheries Pty Ltd will be operating under, was accredited under section 265 (Part 13) of the EPBC Act in November 2013. These management arrangements, described in Table 1, have not significantly changed since this accreditation was granted and still require individual fishers to take all reasonable steps to ensure that listed marine species are not killed or injured as a result of the operation.</p> <p>The Queensland Fisheries (East Coast Trawl) Management Plan 2010 prescribes the restrictions on fishing gear that must be employed by Schulz Fisheries Pty Ltd. A number of these restrictions operate to reduce the risk of mortality of listed marine species potentially encountered in the fishery such as turtles, sea snakes and syngnathids.</p> <p>Restrictions include:</p> <ul style="list-style-type: none"> <li>• bycatch exclusion devices to deflect any large protected species</li> <li>• turtle exclusion devices to deflect turtles</li> </ul> <p>While the ECOTF is known to interact with listed marine species, extensive research and extension work has been undertaken to minimise sea snake capture in the fishery through the use of best</p>

<p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed marine species or a population of that species.</p>	<p>practice bycatch reduction devices. As the Schulz Fisheries Pty Ltd operation is required to use bycatch reduction devices and turtle excluder devices, the risk to listed marine species is considered to be low. Further to this, <b>Condition 4, Table 4</b> will require Schulz Fisheries Pty Ltd to have onboard monitoring (cameras) to investigate if any interactions with EPBC Act listed marine species are occurring during fishing operations.</p> <p>Given the current measures in place for the operation, summarised above and in Table 1, the Department considers the operation of Schulz Fisheries Pty Ltd is not likely to adversely affect the conservation status of a listed marine species or a population of that species.</p>
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**Part 13 (cont.)**

<b>Section 303AA Conditions relating to accreditation of plans, regimes and policies</b>	<b>The Department's assessment of the Schulz Fisheries Pty Ltd operation</b>
(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 management regime under sections 208A, 222A, 245 and 265 for the ECOTF, which the Schulz Fisheries Pty Ltd operation will operate under, remains valid.
(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only:  (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	The Department considers that the accreditation of the management regime for the ECOTF under Part 13 of the EPBC Act, under which the Schulz Fisheries Pty Ltd operation will operate, remains subject to the condition that requires Fisheries Queensland to work closely with the fishing industry to reduce the bycatch of sea snakes and improve monitoring and reporting of protected species interactions.
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	

## Part 13A

### Section 303BA Objects of Part 13A

(1) The objects of this Part are as follows:

- (a) to ensure that Australia complies with its obligations under CITES<sup>2</sup> 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.

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<sup>2</sup> Convention on International Trade in Endangered Species of Wild Fauna and Flora

**Part 13A**

Section 303DC Minister may amend list	The Department's assessment of the Schulz Fisheries Pty Ltd operation
<p>1) The Minister may, by legislative instrument, amend the list referred to in section 303DB by:</p> <p>(a) doing any of the following:</p> <ul style="list-style-type: none"> <li>(i) including items in the list;</li> <li>(ii) deleting items from the list;</li> <li>(iii) imposing a condition or restriction to which the inclusion of a specimen in the list is subject;</li> <li>(iv) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or</li> </ul> <p>(b) correcting an inaccuracy or updating the name of a species.</p>	<p>The Department recommends that 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) harvested by the Schulz Fisheries Pty Ltd operation, be included in the list of exempt native specimens while the Schulz Fisheries Pty Ltd operation is subject to a declaration as an approved wildlife trade operation.</p>
<p>(1A) In deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>No assessment of the Schulz Fisheries Pty Ltd operation has been carried out under Part 10 of the EPBC Act.</p>
<p>(1C) The above does not limit the matters that may be taken into account in deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery.</p>	<p>It is not possible to list exhaustively the factors that you may take into account in amending the list of exempt native specimens. The objects of Part 13A, which are set out above this table, provide general guidance in determining factors that might be taken into account. A matter that is relevant to determining whether an amendment to the list is consistent with those objects is likely to be a relevant factor.</p> <p>The Department considers that the amendment of the list of exempt native specimens to include 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) harvested by the Schulz Fisheries Pty Ltd</p>



	<p>operation would be consistent with the provisions of Part 13A (listed above) as:</p> <ul style="list-style-type: none"> <li>▪ the fishery will not harvest any Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) listed species</li> <li>▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1)</li> <li>▪ the Schulz Fisheries Pty Ltd operation is unlikely to be unsustainable and threaten biodiversity within the next 3 years, and</li> <li>▪ the Environment Protection and Biodiversity Conservation Regulations 2000 do not specify crustaceans as a class of animal in relation to the welfare of live specimens.</li> </ul>
<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <ul style="list-style-type: none"> <li>(a) must consult such other Minister or Ministers as the Minister considers appropriate; and</li> <li>(b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and</li> <li>(c) may consult such other persons and organisations as the Minister considers appropriate.</li> </ul>	<p>The Department considers that the consultation requirements have been met.</p> <p>On 10 August 2004, the then Minister for the Environment and Heritage wrote to all fisheries ministers seeking their views on inclusion of product derived from commercial fisheries in the list of exempt native specimens, while subject to declaration as approved wildlife trade operations. Responses in support of the proposal were received from all state and territory fisheries ministers and the Commonwealth minister.</p> <p>The application from Schulz Fisheries Pty Ltd was also released for public comment from 31 August 2015 to 1 October 2015. The public comment period sought comment on:</p> <ul style="list-style-type: none"> <li>▪ the proposal to amend the list of exempt native specimens to include product derived from the Schulz Fisheries Pty Ltd operation, and</li> <li>▪ the application for the Schulz Fisheries Pty Ltd operation.</li> </ul> <p>Five comments were received. Four comments shared concerns with fishing operations occurring in sensitive marine areas outside of the</p>

	<p>Great Barrier Reef Marine Park as well as the catch of vulnerable shark species. These concerns are addressed through <b>Conditions 4 and 5, Table 4</b>.</p> <p>The remaining comment received provided an update on a similar trial occurring in another fishery.</p>
(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.	The instrument for the Schulz Fisheries Pty Ltd operation made under section 303DC will be gazetted and made available through the Department's website.

<b>Section 303FN Approved wildlife trade operation</b>	<b>The Department's assessment of the Schulz Fisheries Pty Ltd operation</b>
(2) The Minister may, by instrument published in the <i>Gazette</i> , declare that a specified wildlife trade operation is an <b><i>approved wildlife trade operation</i></b> for the purposes of this section.	
<p>(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is <b>satisfied</b> that:</p> <p>(a) the operation is consistent with the objects of Part 13A of the Act; and</p>	<p>The Department considers that the Schulz Fisheries Pty Ltd operation is consistent with the objects of Part 13A (listed above) as:</p> <ul style="list-style-type: none"> <li>▪ the fishery will not harvest any CITES listed species</li> <li>▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1)</li> <li>▪ the Schulz Fisheries Pty Ltd operation is unlikely to be unsustainable and threaten biodiversity within the next 3 years, and</li> <li>▪ the EPBC Regulations 2000 do not specify crustaceans as a class</li> </ul>

<p>(b) the operation will not be detrimental to:</p> <ol style="list-style-type: none"> <li>i. the survival of a taxon to which the operation relates; or</li> <li>ii. the conservation status of a taxon to which the operation relates; and</li> </ol> <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>(c) if the operation relates to the taking of live specimens that belong to a taxon specified in the regulations – the conditions that, under the regulations, are applicable to the welfare of the specimens are likely to be complied with; and</p> <p>(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.</p>	<p>of animal in relation to the welfare of live specimens.</p> <p>The Department considers that the Schulz Fisheries Pty Ltd operation will not be detrimental to the survival or conservation status of a taxon to which it relates within the next 3 years, given the management measures currently in place, which include:</p> <ul style="list-style-type: none"> <li>▪ limited entry</li> <li>▪ total combined annual catch limits and total annual effort restriction</li> <li>▪ gear restrictions (net and boat)</li> <li>▪ onboard monitoring through cameras</li> <li>▪ mandatory bycatch reduction devices and turtle excluder devices, and</li> <li>▪ spatial and temporal closures</li> </ul> <p>The Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) do not specify crustaceans as a class of animal in relation to the welfare of live specimens.</p> <p>No other conditions are specified in relation to commercial fisheries in the EPBC Regulations.</p>
<p>(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have <b>regard</b> to:</p> <p>(a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and</p>	<p>The Department considers that the Schulz Fisheries Pty Ltd operation will not have a significant impact on any relevant ecosystem within the next 3 years, given the management measures currently in place, which include:</p> <ul style="list-style-type: none"> <li>▪ limited entry</li> <li>▪ total combined annual catch limits and total annual effort restriction</li> <li>▪ gear restrictions (net and boat)</li> </ul>

<p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<ul style="list-style-type: none"> <li>▪ onboard monitoring through cameras</li> <li>▪ mandatory bycatch reduction devices and turtle excluder devices, and</li> <li>▪ spatial and temporal closures</li> </ul> <p>The Department considers that the management arrangements that will be employed for the Schulz Fisheries Pty Ltd operation, as outlined in Table 1, are likely to be effective. The total combined retained catch will be limited to 120 t and effort will be constrained to 120 days per year whilst the operation is in the developmental stage. In addition, gear restrictions will be employed as well as boat size restrictions. Monitoring procedures will also be employed through the use of onboard cameras with bycatch being monitored through the catch disposal record system. Further to this, a sampling regime will collect data on the distribution and abundance of sharks and rays.</p>
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have <b>regard</b> to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or Territory concerned; and</p> <p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	<p>The Schulz Fisheries Pty Ltd operation will be managed under the Queensland Fisheries (East Coast Trawl) Management Plan 2010, the Queensland <i>Fisheries Act 1994</i> and the Queensland Fisheries Regulation 2008.</p> <p>The Queensland <i>Fisheries Act 1994</i> applies throughout Queensland waters.</p> <p>The Department considers that 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>(b) the operation is a small scale operation.</p>	

	The Schulz Fisheries Pty Ltd operation is a small scale operation.
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Section 303FR Public consultation	The Department's assessment of the Schulz Fisheries Pty Ltd operation
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <ul style="list-style-type: none"> <li>(a) setting out the proposal to make the declaration; and</li> <li>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</li> <li>(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.</li> </ul>	<p>The Department considers that the consultation requirements of the EPBC Act for declaring a fishery an approved wildlife trade operation have been met. A public notice, which set out the proposal to declare the harvest 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) by Schulz Fisheries Pty Ltd an approved wildlife trade operation and included the submission, was released for public comment which closed on 1 October 2015 with five public comments received.</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>A public notice, which set out the to declare the harvest 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) by Schulz Fisheries Pty Ltd a wildlife trade operation and included the submission, was released for public comment on 31 August 2015 and closed on 1 October 2015, a total of 24 business days.</p>
<p>(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.</p>	<p>The five public comments received on the submission are included at <b>Attachment C1</b>. Four comments shared concerns with fishing operations occurring in sensitive marine areas outside of the Great Barrier Reef Marine Park as well as the catch of vulnerable shark species. One comment provided an update on a similar trial occurring in another fishery. The Department's assessment has considered the public comments received on the submission and included <b>Conditions 4 and 5 at Table 4</b> to address the concerns about monitoring the catch of shark species and fishing in sensitive marine areas.</p>

Section 303FT Additional provisions relating to declarations	The Department's assessment of the Schulz Fisheries Pty Ltd operation
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	A declaration for the Schulz Fisheries Pty Ltd operation will be made under section 303FN.
<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 standard conditions applied to small scale wildlife trade operations include:</p> <ul style="list-style-type: none"> <li>• operation in accordance with the management regime</li> <li>• notifying the Department of changes to the management regime, and</li> <li>• annual reporting in accordance with the requirements of the Australian Government <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i>.</li> </ul> <p>The wildlife trade operation instrument for the harvest 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) by Schulz Fisheries Pty Ltd specifies the standard and any additional conditions applied.</p>
(8) A condition may relate to reporting or monitoring.	One of the standard conditions relates to reporting.
(9) The Minister must, by instrument published in the <i>Gazette</i> , revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.	
(11) A copy of an instrument under section 303FN, or this section is to be made available for inspection on the Internet.	The instrument for the harvest 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) by Schulz Fisheries Pty Ltd made under sections 303FN and the conditions under section 303FT will be registered and made available through the Department's website.

## Part 16

<b>Section 391 Minister must consider precautionary principle in making decisions</b>	<b>The Department's assessment of the Schulz Fisheries Pty Ltd operation</b>
<p>(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and/or section 303FN, to the extent he or she can do so consistently with the other provisions of this Act.</p>	<p>The Department has accounted for the precautionary principle in the preparation of its advice. Recognising the potential risks to biodiversity from the Schulz Fisheries Pty Ltd operation identified in the <i>Ecological risk assessment of the East Coast Otter Trawl Fishery in the Great Barrier Reef Marine Park</i>, the Queensland Department of Agriculture and Fisheries has implemented precautionary management measures which reduce the risks of adverse impacts, for example, limited entry, gear restrictions, onboard monitoring through cameras, spatial closures, total annual effort limit and a total combined annual catch limit. The Queensland Fisheries (East Coast Trawl) Management Plan 2010 sets out performance indicators and trigger points against which the performance of the fishery is evaluated regularly.</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>	



**Part 12**

<b>Section 176 Bioregional Plans</b>	<b>The Department's assessment of the Schulz Fisheries Pty Ltd operation</b>
<p>(5) Subject to this Act, the Minister must have regard to a bioregional plan in making any decision under this Act to which the plan is relevant.</p>	<p>The Marine bioregional plan for the Temperate East Marine Region has been considered in the preparation of advice in relation to decisions under section 303DC and section 303FN. Extraction of living resources has been identified as a pressure operating within the Temperate East marine bioregional planning area in which the Schulz Fisheries Pty Ltd operation will operate. Bycatch of turtles, sea snakes, seabirds and seahorses is also a recognised pressure of potential concern. However, due to the Schulz Fisheries Pty Ltd operation harvesting target species in deeper water over mud and sandy habitats, away from reef habitats, the Department considers the impact to the physical ecosystem as low. In addition, an annually reviewed total allowable commercial catch restricts the removal of prawns and scampi from the ecosystem.</p>

## The Department of the Environment's final conditions and recommendations to the Schulz Fisheries Pty Ltd small scale wildlife trade operation

The material submitted by Schulz Fisheries Pty Ltd demonstrates that the management arrangements for the operation meet most of the requirements of the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition'.

### Stock Status

The Department considers that overall the management regime for the harvest of giant scarlet prawns (*Aristaeopsis edwardsiana*), royal red prawns (*Haliporoides sibogae*), giant red prawns (*Aristaeomorpha foliacea*), and scampi (*Metanephrops* spp. and *Nephropsis* spp) by Schulz Fisheries Pty Ltd aims to ensure that fishing is conducted in a manner that does not lead to overfishing.

Management measures in place in the fishery include:

- limited entry
- total combined annual catch limits
- gear restrictions (net and boat)
- total annual effort restriction
- onboard monitoring through cameras
- mandatory bycatch reduction devices and turtle excluder devices, and
- spatial and temporal closures.

### Ecosystem Impacts

Taking into account the management measures described above, the Department considers that the management regime for the harvest of giant scarlet prawns (*Aristaeopsis edwardsiana*), royal red prawns (*Haliporoides sibogae*), giant red prawns (*Aristaeomorpha foliacea*), and scampi (*Metanephrops* spp. and *Nephropsis* spp) by Schulz Fisheries Pty Ltd provides for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

While the fishery is relatively well managed, the Department has identified some risks and uncertainties that must be managed to ensure that impacts are minimised, including:

- the lack of stock assessment models for key target species due to the operation being developmental in nature, and
- lack of an ongoing program to validate bycatch.

The key challenge for this operation will be:

- ensuring any damage to sensitive benthic environments is minimised.

The Department considers that, until it can be demonstrated that these issues have been adequately addressed, declaration of the harvest operations of the harvest of giant scarlet prawns (*Aristaeopsis edwardsiana*), royal red prawns (*Haliporoides sibogae*), giant red prawns (*Aristaeomorpha foliacea*), and scampi (*Metanephrops* spp. and *Nephropsis* spp) by Schulz Fisheries Pty Ltd as an approved wildlife trade operation for three years, until 26 April 2019, is appropriate. The Department considers that the declaration should be subject to the conditions listed in Table 4.

Unless a specific time frame is provided, each condition must be addressed within the period of the approved wildlife trade operation declaration for the fishery.

**Table 4: Schulz Fisheries Pty Ltd operation assessment – Summary of Issues and Conditions - May, 2016**

Issue	Condition
<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of the Environment 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, protected species or the ecosystem.</p>	<p><b>Condition 1:</b> The Schulz Fisheries Pty Ltd operation will be carried out in accordance with the Queensland Fisheries (East Coast Trawl Fishery) Management Plan 2010 in force under the Queensland <i>Fisheries Act 1994</i>.</p> <p><b>Condition 2:</b> Schulz Fisheries Pty Ltd to inform the Department of the Environment of any intended material changes to the management arrangements for the Schulz Fisheries Pty Ltd operation that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.</p>
<p><u>Annual reporting</u></p> <p>It is important that reports be produced and presented to the Department annually in order for the performance of the operation and progress in implementing the conditions in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration. Annual reports should follow Appendix B to the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' and include a description of the operation, 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 fishing operation on the ecosystem in which it operates and progress in implementing the Department's conditions. Electronic copies of the guidelines are available from the Department's website at <a href="http://www.environment.gov.au/resource/guidelines-ecologically-sustainable-management-fisheries">http://www.environment.gov.au/resource/guidelines-ecologically-sustainable-management-fisheries</a></p>	<p><b>Condition 3:</b> Schulz Fisheries Pty Ltd to produce and present reports to the Department of the Environment annually as per Appendix B of the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition'.</p>

Issue	Condition
<p><u>Reliable fisheries monitoring and information collection</u></p> <p>As this is a new and developmental fishing activity, 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 Schulz Fisheries Pty Ltd will utilise onboard 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"> <li>• the completion of stock status assessments for the target species, and</li> <li>• identification of risks to target, byproduct and bycatch species, including protected species (such as sea snakes, turtles and white sharks)</li> </ul> <p>On board cameras (or e-monitoring) on boats has become a useful tool in fisheries management as the cameras, if positioned in the right places, can pick up any catch or bycatch that comes on board the boat. Camera footage can also be used to ensure compliance with fisheries regulations. Schulz Fisheries Pty Ltd has indicated that onboard cameras have been installed and camera footage will be monitored by a suitably qualified individual. Schulz Fisheries Pty Ltd has further indicated that the company is involved in ongoing discussions with the Queensland Government around how the camera footage may be monitored.</p> <p>The Department therefore considers it important that statistically robust monitoring, through the use of onboard cameras, is maintained by Schulz Fisheries Pty Ltd during fishing operations. The onboard 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, can be presented to the Department after the initial gear trial (two to three trips) is completed. Ongoing reporting of bycatch and benthic impacts should then form part of the annual reports to the Department.</p> <p>The Department is also aware that Schulz Fisheries Pty Ltd is working with the Queensland Department of Agriculture and Fisheries to develop a biological sampling</p>	<p><b>Condition 4:</b> Schulz Fisheries Pty Ltd, in collaboration with the Queensland Department of Agriculture and Fisheries, to:</p> <ul style="list-style-type: none"> <li>• ensure that robust monitoring of target, byproduct and bycatch species, through the use of onboard cameras, is undertaken whilst fishing</li> <li>• ensure that onboard cameras are installed by an independent, suitably qualified technician so that bycatch can be monitored effectively</li> <li>• ensure that an independent, suitably qualified individual or individuals examine the onboard camera footage</li> <li>• after the gear trial has been completed provide a report to the Department of the Environment which details the impacts of the fishing operation on bycatch and benthic biota, and</li> <li>• develop and implement a biological sampling regime to collect information on sharks and rays encountered during fishing operations</li> </ul>

Issue	Condition
<p>regime to collect information on the catch composition of sharks and rays in the area of operation. The Department also considers it important that development and implementation of this biological sampling regime occur within the timeframe of the accreditation and that the information collected is included in annual reports to the Department as soon as this is practicable.</p>	
<p><u>Ecologically sensitive areas</u></p> <p>As this is a new and developmental fishing activity, there is limited data available on the impacts of otter trawling on the deepwater habitat adjacent to the Great Barrier Reef Marine Park (GBRMP). For the operation to be considered ecologically sustainable into the future, detrimental impacts on the deepwater habitat adjacent to the GBRMP should be kept to a minimum, until data is collected to characterise the benthos in these habitats.</p> <p>The <i>Ecological risk assessment of the East Coast Otter Trawl Fishery in the Great Barrier Reef Marine Park (2014)</i> assessed 10 habitat types and their resilience to trawl fishing. One habitat type (Habitat 10), in which Schulz Fisheries Pty Ltd operates, was assessed to be at high risk due to the lack of information available on the benthic environment and biota associated with it. There is even less information available on the deeper water environments adjacent to Habitat 10 areas. While the ERA determined the overall risk of trawling on the ecosystem as low within the GBRMP, the Department considers it important that if bycatch of reef-associated biota (corals and sponges) is apparent, fishing activity should cease until the vessel has moved to an area where there is less risk of catching these sensitive organisms. The Department therefore recommends that Schulz Fisheries Pty Ltd develop and adopt protocols to ensure sensitive benthic environments adjacent to the Great Barrier Reef World Marine Park are not damaged as a result of fishing. The protocols should include move-on provisions in the event of interactions with reef associated biota with the trawl nets.</p>	<p><b>Condition 5:</b> Schulz Fisheries Pty Ltd to develop and adopt protocols to avoid potential damage to sensitive benthic environments adjacent to the Great Barrier Reef Marine Park.</p>

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