



# **Australian Government**

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## **Department of the Environment and Energy**

### **Assessment of the Queensland East Coast Inshore Fin Fish Fishery**

September 2016

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## **Disclaimer**

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

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**TABLE 1: SUMMARY OF THE QUEENSLAND EAST COAST INSHORE FIN FISH FISHERY**

<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 <i>Fisheries Regulation 2008</i></li> <li>• Queensland <i>Marine Parks Act 1982</i></li> <li>• Queensland <i>Nature Conservation Act 1992</i></li> <li>• <i>Great Barrier Reef Marine Park Act 1975</i></li> <li>• <i>Great Barrier Reef Marine Park Regulations 1983</i></li> <li>• Guidelines for commercial operators in the East Coast Inshore Fin Fish Fishery. Queensland Government, 2009.</li> <li>• Performance Measurement System – East Coast Inshore Fin Fish Fishery (ECIFFF) – Version 1 June 2009</li> <li>• Marine Bioregional Plan for the Temperate East Marine Region 2012</li> </ul>
<p><b>Area</b></p>	<p>The area of the Queensland East Coast Inshore Fin Fish Fishery includes tidal waters along Queensland’s east coast and extends eastward to the boundary agreed under the Offshore Constitutional Settlement (OCS). The area of the fishery includes the Great Barrier Reef Marine Park and the Great Barrier Reef World Heritage Area, in both state and Commonwealth waters. Under the OCS agreement between the Australian Government and the Queensland Government, the fishery is managed by the Queensland Department of Agriculture and Fisheries under Queensland legislation.</p> <p>Most of the fishery’s harvest is taken from inshore waters, including coastal rivers and creeks, however, some offshore harvest also occurs.</p> <div data-bbox="518 1093 1109 1960" data-label="Figure"> </div>

**Figure 1:** Map of catch distribution in the East Coast Inshore Fin Fish Fishery (source: Queensland Department of Agriculture and Fisheries, 2016).

<p><b>Target species</b></p>	<p>The East Coast Inshore Fin Fish Fishery has a diverse range of target species. Frequently targeted fish species include:</p> <ul style="list-style-type: none"> <li>• barramundi</li> <li>• bream species</li> <li>• flathead</li> <li>• sandwhiting</li> <li>• sea mullet</li> <li>• tailor</li> <li>• grey mackerel</li> <li>• school mackerel</li> <li>• spotted mackerel</li> <li>• blue threadfin</li> <li>• king threadfin</li> </ul> <p>The fishery also takes a number of tropical shark species, including:</p> <ul style="list-style-type: none"> <li>• Australian blacktip shark</li> <li>• common blacktip shark</li> <li>• scalloped hammerhead</li> <li>• spot tail shark</li> <li>• bull shark</li> <li>• milk shark</li> <li>• pigeye shark</li> </ul>
<p><b>Fishery status</b></p>	<p>The status of fish stocks taken in the East Coast Inshore Fin Fish Fishery is listed below (Source: <i>Stock status of Queensland's fisheries resources 2014, Status of Key Australian Fish Stocks 2014</i>).</p> <p><b>Stocks assessed to be <u>sustainably fished</u></b></p> <ul style="list-style-type: none"> <li>• barramundi (<i>Lates calcarifer</i>)</li> <li>• blue threadfin (<i>Eleutheronema tetradactylum</i>)</li> <li>• dusky flathead (<i>Platycephalus fuscus</i>)</li> <li>• grey mackerel (<i>Scomberomorus semifasciatus</i>)</li> <li>• sand whiting (<i>Sillago ciliata</i>)</li> <li>• school mackerel (<i>S. queenslandicus</i>)</li> <li>• sea mullet (<i>Mugil cephalus</i>)</li> <li>• spotted mackerel (<i>S. munroi</i>)</li> <li>• tailor (<i>Pomatomus saltatrix</i>)</li> <li>• yellowfin bream (<i>Acanthopagrus australis</i>)</li> </ul> <p>Harvest of these species typically comprises around two thirds of the total retained catch in the fishery.</p> <p>A stock assessment of whaler and hammerhead sharks (Carcharhinidae and Sphyrnidae) in Queensland was released in May 2016. The stock assessment concluded that take of these species in the fishery was within sustainable limits. However, a review by an independent shark expert concluded there is insufficient data to determine a sustainable limit. These species are therefore included below as undefined or not assessed.</p> <p><b>Stocks assessed to be <u>undefined</u></b></p> <ul style="list-style-type: none"> <li>• cobia (<i>Rachycentron canadum</i>)</li> <li>• golden snapper (<i>Lutjanus johnii</i>)</li> <li>• javelin (<i>Pomadasys</i> spp.)</li> <li>• king threadfin (<i>Polydactylus macrochir</i>)</li> <li>• dart complex (<i>Trachinotus</i> spp.)</li> <li>• garfish complex (<i>Hemiramphidae</i>)</li> <li>• Australian blacktip shark (<i>C. tilstoni</i>)</li> <li>• blacktip whaler shark (<i>C. limbatus</i>)</li> <li>• graceful shark (<i>C. amblyrhynchoides</i>)</li> <li>• sandbar shark (<i>C. plumbeus</i>)</li> </ul>

	<p><b>Species examined but not considered further in 2014</b></p> <ul style="list-style-type: none"> <li>• bream complex, other than yellowfin bream</li> <li>• flathead complex, other than dusky flathead</li> <li>• whiting complex (<i>Sillago</i> spp., other than <i>S. robusta</i> and <i>S. ciliata</i>)</li> </ul> <p>Catch levels of these species/species groups are monitored annually. Should commercial catches increase above prescribed levels, species can be included in the full stock status assessment process.</p> <p>A further 22 species and species complexes have not been assessed.</p>
<p><b>Byproduct/secondary species</b></p>	<p>A large number of secondary/byproduct species are taken in the fishery. The stock status for many of these species is currently classified as 'undefined'. These species include:</p> <ul style="list-style-type: none"> <li>• bait fish species</li> <li>• dart (various spp.)</li> <li>• garfish (various species)</li> <li>• grunter (various species)</li> <li>• jewfish</li> <li>• luderick</li> <li>• mangrove jack</li> <li>• queenfish</li> <li>• trevally (various species)</li> </ul> <p>Many shark species are taken as byproduct/secondary catch, including:</p> <ul style="list-style-type: none"> <li>• graceful shark</li> <li>• spinner shark (<i>C. brevipinna</i>)</li> <li>• Australian sharpnose shark (<i>Rhizoprionodon taylori</i>)</li> <li>• hardnose shark (<i>C. macroti</i>)</li> </ul> <p>While these species were included in the 'Stock Assessment of whaler and hammerhead sharks (Carcharhinidae and Sphyrnidae) in Queensland' (2016), their stock status remains unclear due to limited data. The fishery also incidentally harvests guitarfishes (Rhinobatidae). No assessment of stock size and abundance has been carried out for guitarfishes.</p>

<p><b>Gear</b></p>	<p>The East Coast Inshore Fin Fish Fishery comprises a variety of shore based and boat based fishing operations that use different types of fishing gear to target regionally important species.</p> <p>Several different types of mesh nets are used in the fishery. These range from small (25 millimetre) mesh nets used in coastal waters to large offshore nets that may be up to 1200 metres long and have a maximum mesh size of 165 millimetres. River and foreshore mesh nets are used to target barramundi, blue threadfin and king threadfin. Offshore mesh nets typically target tropical sharks and mackerels.</p> <p>Haul (seine) nets are mainly used in the beach netting sector in southern Queensland. This method is commonly used to target mullet, whiting, garfish and tailor. Also in southern Queensland, some operators use tunnel nets to target a variety of fin fish including whiting. The use of turtle excluder devices in tunnel nets became mandatory on 1 July 2009.</p> <p>Cast nets may also be used by operators with a licence to fish for bait. These nets are used to target small inshore species such as herring, mullet and garfish.</p> <p>Hook and line methods are used to take a variety of fish species. A maximum of six hooks can be used on line fishing apparatus except in the L8 sector of the fishery which operates outside of the Great Barrier Reef Marine Park.</p> <p>Recreational fishers, using boat or shore based methods, commonly use cast nets and small haul (seine) nets as well as hook and line.</p> <p>In addition to standard recreational fishing gears, Indigenous communities are permitted to use traditional subsistence fishing methods for traditional and customary purposes. Product harvested using these methods can only be used or consumed within the community.</p>
<p><b>Season</b></p>	<p>The fishery is open year round.</p> <p>For management purposes the fishing season for the shark sub fishery (S symbol) commences annually on 1 July, while the fishing season for the remainder of the fishery commences annually on 1 January. A number of seasonal closures are in place to protect spawning stocks of barramundi and tailor.</p>

**Commercial harvest**

The total harvest in the East Coast Inshore Fin Fish Fishery has been relatively stable over the past four fishing seasons, although there has been some variation in the species composition of the catch, as shown in the table below.

East Coast Inshore Fin Fish Fishery catch for 2011 to 2014 (tonnes)  
(Source: Queensland Department of Agriculture and Fisheries, 2016)

<b>Species</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
<b>Total catch (t)</b>	<b>4668</b>	<b>4774</b>	<b>4787</b>	<b>4608</b>
baitfish	79	69	69	57
barramundi	555	402	335	310
blacktip shark complex	195	133	118	224
blue threadfin	159	169	128	104
bream	125	151	126	153
dusky flathead	65	61	50	42
grey mackerel	224	189	192	130
grunter/javelin	27	31	34	35
hammerhead shark	52	92	97	69
king threadfin	219	207	176	192
queenfish	131	128	90	94
sea mullet	1725	2067	1549	2085
shark (other)	Not available	Not available	146	129
spotted mackerel	44	79	90	83
tailor	54	58	41	48
trevally	95	100	101	94
whiting	267	275	226	212

**Value of commercial harvest**

The value of commercial harvest in 2014 was estimated to be approximately \$20 million.



<p><b>Take by other sectors</b></p>	<p>Some species targeted in the East Coast Inshore Fin Fish Fishery are also taken in other Queensland fisheries and in fisheries managed by the New South Wales (NSW), Northern Territory and Australian governments. The Queensland Department of Agriculture and Fisheries collaborates with the NSW Department of Primary Industries when undertaking stock status assessments for species also caught in NSW fisheries.</p> <p>Recreational fishers frequently target barramundi, mangrove jack, whiting, bream, mullet, tailor, mackerel, trevally and flathead. Size limits and recreational possession limits apply to many of the common recreational species.</p> <p>Catch retained by recreational fishers in Queensland is greater than the total catch retained by the East Coast Inshore Fin Fish Fishery. In 2014 the total recreational harvest (retained catch) for all of Queensland was estimated at 6276 tonnes (Webley <i>et al</i>, 2015). The most commonly harvested species were sand whiting (482 tonnes), yellowfin bream (323 tonnes), flathead (117 tonnes) and tailor (111 tonnes). The recreational harvest for dusky flathead is also likely to substantially exceed the commercial harvest (Webley <i>et al</i>, 2015)</p> <p>Catch in the fishing tour charter sector is reported in charter sector logbooks. In 2009-10 this sector retained approximately 85 tonnes with approximately 100 tonnes released. Trevally, mackerel species, tuna and barramundi were the species most often caught and retained.</p> <p>There are no recent or reliable estimates of Indigenous catch of East Coast Inshore Fin Fish Fishery species. Based on the results of the National Recreational and Indigenous Fishing Survey conducted in 2000-01 (Henry &amp; Lyle 2003), the Indigenous harvest of species harvested in the fishery is considered low relative to other sectors.</p>
<p><b>Commercial licences issued</b></p>	<p>In 2012, 381 licences with net fishery symbols and 321 with line fishery symbols were active in the fishery.</p> <p>In 2013, 375 licences with net fishery symbols and 294 with line fishery symbols were active in the fishery.</p> <p>In 2014, 353 licences with net fishery symbols and 340 with line fishery symbols were active in the fishery.</p> <p>In 2015, 312 licences with net fishery symbols and 335 with line fishery symbols were active in the fishery.</p>
<p><b>Management arrangements</b></p>	<p>The East Coast Inshore Fin Fish Fishery is managed by the Queensland Department of Agriculture and Fisheries under the Queensland <i>Fisheries Act 1994</i> and the Queensland Fisheries Regulations 2008.</p> <p>Management arrangements for the fishery include:</p> <p>Input Controls:</p> <ul style="list-style-type: none"> <li>• limited entry</li> <li>• licensing symbols - each symbol allows different gear to be used commercially in different areas</li> <li>• allocation of a limited number of 'S' symbols to constrain the number of operators authorised to take sharks and rays</li> </ul>

	<ul style="list-style-type: none"> <li>• limits on the types of nets, net lengths and mesh sizes for nearshore, inshore and offshore operations, with requirements for fishers to be in close proximity to their nets, to allow the release of protected species caught accidentally</li> <li>• seasonal and area closures, and</li> <li>• gear limits for recreational fishers.</li> </ul> <p>Output Controls:</p> <ul style="list-style-type: none"> <li>• total allowable commercial catch limits: <ul style="list-style-type: none"> <li>○ sharks and rays - 600 tonnes, divided into a 480 tonne northern component and a 120 tonne southern component</li> <li>○ grey mackerel - 250 tonnes</li> <li>○ spotted mackerel - 240 tonnes, and</li> <li>○ tailor - 120 tonnes</li> </ul> </li> <li>• possession limits (ten net-caught sharks and four line-caught sharks) and maximum size limit for sharks (150 centimetres total length), for all fishers except those holding an 'S' symbol<sup>1</sup>, to protect breeding females</li> <li>• some restrictions on the form in which sharks can be retained and landed to prevent illegal removal of shark fins</li> <li>• possession limits for many species and maximum size limits for some species, for both commercial and recreational fishers</li> <li>• protection or restricted take of some high risk species, and</li> <li>• recreational bag limits for some species.</li> </ul>
<b>Bycatch</b>	<p>Bycatch for the hook and line sector in the East Coast Inshore Fin Fish Fishery is considered minimal, with most unwanted bycatch able to be released unharmed.</p> <p>Within the net sectors of the fishery, bycatch has previously been estimated at less than 20 per cent of the total catch for netting operations targeting mullet, whiting, small mackerels, barramundi and mixed estuary species; and at 28 per cent for operations targeting sand whiting (Halliday <i>et al</i>, 2001). Bycatch consists of mainly juvenile fish and non-marketable species. Some EPBC Act protected species are also reported as bycatch. (See <b>Interactions with protected species</b> section for further analysis.)</p> <p>Bycatch mitigation measures currently in place include restrictions on net type, length and mesh size for mesh nets, net attendance rules and the use of turtle excluder devices in tunnel nets.</p>
<b>Interaction with protected species<sup>2</sup></b>	<p>Interactions with protected species are reported in logbooks by fishers and submitted to the Queensland Department of Agriculture and Fisheries within a month after cessation of each fishing trip. Reports of protected species interactions are sent to the Department of the Environment and Energy on a quarterly basis. Protected species that are known to interact with the fishery include turtles, crocodiles and dugong. There are also some anecdotal reports the fishery may interact with inshore dolphins. The most commonly reported interactions are with dugong and turtles in the fishery's net sector.</p>

<sup>1</sup> The maximum size limit does not apply to net licences with an S symbol. The net mesh size regulations are designed to select sharks less than 150 centimetres.

<sup>2</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>In the '2013 Species of Conservation Interest (SOI) Report' the Queensland Department of Agriculture and Fisheries reported interactions with the following EPBC Act protected species:</p> <ul style="list-style-type: none"> <li>- green turtles (listed as vulnerable), 12 released alive and 2 dead</li> <li>- hawksbill turtles (listed as vulnerable), 3 released alive</li> <li>- loggerhead turtles (listed as endangered), 1 released alive</li> <li>- crocodile (listed as migratory), 1 released alive</li> <li>- dugong (listed as migratory), 5 released alive</li> </ul> <p>The Australian Government Threatened Species Scientific Committee (the Committee) is currently assessing the eligibility of three species of hammerhead sharks (scalloped, great and smooth) for listing as threatened species under the EPBC Act. The Committee's advice is due to the Australian Government Minister for the Environment and Energy by September 2017.</p> <p><b>Reporting of interactions with protected species in Commonwealth waters</b></p> <p>Under the EPBC Act, persons who interact with a protected species must report that interaction within seven days of the incident occurring to the Department of the Environment and Energy. A memorandum of understanding between the Queensland Department of Agriculture and Fisheries and the Department for the streamlined reporting of fisheries interactions with protected species is in place, assisting fishers in meeting their requirements under the EPBC Act.</p>
<p><b>Ecosystem impacts</b></p>	<p>The nature of the fishing gear used in the East Coast Inshore Fin Fish Fishery (net and line) means that minimal contact with the seabed and associated habitat occurs. Impacts on seabed communities and ecosystem structures are therefore likely to be negligible.</p> <p>The removal of high order predators (such as sharks, barramundi and mackerel) can potentially impact food webs and species assemblages. While these impacts have not been quantified for the East Coast Inshore Fin Fish Fishery, management of the fishery aims to ensure that sustainable populations of target species are maintained.</p> <p>The <i>Marine bioregional plan for the Temperate East Marine Region 2012</i> has identified that there are four key ecological features present in the area of the fishery. These are shelf rocky reefs, the canyons on the eastern continental slope, the Tasmantid seamount chain and the upwelling off Fraser Island. However, due to the low impact harvesting methods used in the fishery (gillnet and line), impacts to the physical ecosystem such as the canyons, rocky reefs and the Tasmantid seamount chain are likely to be low.</p> <p>While the Department recognises there may be some bycatch of EPBC Act protected species, the management arrangements currently in place in the fishery and the conditions in Table 3, should ensure that any impacts on bycatch species are minimised.</p>

**Impacts on  
(Convention on  
International Trade in  
endangered Species  
of Wild Fauna and  
Flora) CITES species**

The Department's assessment considered the fishery's impact on great hammerhead (*Sphyrna mokarran*), smooth hammerhead (*S. lewini*) and smooth hammerhead (*S. zygaena*) sharks, which are listed under Appendix II of CITES. Australia gives effect to the provisions of CITES through Part 13A of the EPBC Act. Under these provisions, export of hammerheads and other CITES listed species may only occur where a permit, supported by a non-detriment finding, has been issued by Australia's CITES Management Authority.

In 2014, Australia's CITES Scientific Authority determined that Australia's national take of hammerhead sharks would not be detrimental to the survival of the species if catch was restricted to historical levels. In the East Coast Inshore Fin Fish Fishery, hammerhead shark catch is reported to species level (scalloped hammerhead) and Family level (scalloped, great and smooth hammerhead).

Catch of hammerhead sharks in the fishery since 2012 is listed below:

<b>Year</b>	<b>Hammerhead shark</b>	<b>Scalloped hammerhead</b>	<b>Total (t)</b>
2012	43.20	8.94	<b>52.14</b>
2013	81.00	11.55	<b>92.55</b>
2014	87.40	9.97	<b>97.38</b>
2015	52.10	17.16	<b>69.26</b>

The Department therefore considers that the harvest of hammerhead sharks in the East Coast Inshore Fin Fish Fishery is sustainable.

<p><b>Impacts on World Heritage property/RAMSAR site</b></p>	<p>The Department's assessment considered the possible impacts of the fishery on the World Heritage values of the Great Barrier Reef World Heritage Area and on the Great Barrier Reef Marine Park. Much of the fishing effort in the East Coast Inshore Fin Fish Fishery occurs within these areas.</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. Due to the implementation of area and seasonal closures, gear size, harvest restrictions and the harvesting methods used in the fishery, significant impacts on the Great Barrier Reef Marine Park or the World Heritage values of the Great Barrier Reef World Heritage Area are considered unlikely.</p> <p>On this basis the Department considers that an action taken by an individual fisher, acting in accordance with the East Coast Inshore Fin Fish Fishery management arrangements in force under the Queensland <i>Fisheries Act 1994</i> and the Queensland Fisheries Regulation 2008, would not be expected to have a significant impact on the Great Barrier Reef Marine Park or the World Heritage values of the Great Barrier Reef World Heritage Area.</p> <p>This assessment also considered the possible impacts of the fishery on the ecological character of the Moreton Bay Ramsar Wetland, Great Sandy Strait Ramsar Wetland, Shoalwater and Corio Bays Ramsar Wetland and the Bowling Green Bay Ramsar Wetland. The Department considers that an action taken by an individual fisher, acting in accordance with the management regime for the East Coast Inshore Fin Fish Fishery, would not be expected to have a significant impact on the ecological character of a Wetland of International Importance.</p>
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**TABLE 2: The Department of the Environment and Energy’s assessment of the Queensland East Coast Inshore Fin Fish Fishery 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 Species and communities**

<p><b>Division 8 Miscellaneous</b></p> <p><b>Section 303AA Conditions relating to accreditation of plans, regimes and policies</b></p>	<p><b>The Department’s assessment of the Queensland East Coast Inshore Fin Fish Fishery</b></p>
<p>(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.</p>	<p>The East Coast Inshore Fin Fish Fishery requires accreditation under section 208A, 222A, 245 and 265 for incidental interactions with EPBC Act listed protected species.</p>
<p>(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only:</p> <p style="padding-left: 40px;">(a) during a particular period; or</p> <p style="padding-left: 40px;">(b) while certain circumstances exist; or</p> <p style="padding-left: 40px;">(c) while a certain condition is complied with.</p> <p>In such a case, the instrument of accreditation is to specify the period, circumstances or condition.</p>	<p>The management regime for the East Coast Inshore Fin Fish Fishery was last accredited by the then Minister in February 2012, subject to certain conditions that required the Queensland Department of Agriculture and Fisheries to:</p> <ul style="list-style-type: none"> <li>• continue to improve knowledge of the number and rate of interactions with species of conservation interest in the fishery, including the recognition of important habitats and identification of locations, areas or regions with higher risk of interactions and/or mortalities occurring</li> <li>• support relevant research into methods to reduce fishing related mortalities of species of conservation interest</li> <li>• continue to work with industry and all relevant stakeholders to identify and implement appropriate gear selectivity and operational improvements and /or other management measures that minimise capture and mortality of species of conservation interest</li> </ul>

	<ul style="list-style-type: none"> <li>• in conjunction with relevant stakeholders develop a framework to enable implementation of measure to avoid interactions and/or reduce mortalities at an appropriate spatial scale</li> <li>• implement appropriate management measures identified above to ensure that risks to species of conservation interest in the fishery are minimised.</li> </ul>
<p>(3) If an accreditation specifies a particular period as mentioned in subsection (2), the accreditation ceases to be in force at the end of that period.</p>	<p>The previous accreditation did not specify a particular period and therefore remains in place.</p>
<p>(4) If an accreditation specifies circumstances as mentioned in subsection (2), the Minister must, in writing, revoke the accreditation if he or she is satisfied that those circumstances have ceased to exist.</p>	<p>The accreditation has not been revoked.</p>
<p>(5) The Minister may, in writing, vary an accreditation by:</p> <p style="padding-left: 20px;">(a) specifying one or more conditions (or further conditions) to which the accreditation is subject; or</p> <p style="padding-left: 20px;">(b) revoking or varying a condition:</p> <p style="padding-left: 40px;">(i) specified in the instrument of accreditation; or</p> <p style="padding-left: 40px;">(ii) specified under paragraph (a).</p>	<p>While the Department considers the existing accreditation should remain in place, it recommends that you revoke the conditions applied in 2012 and specify new, consolidated conditions that are more suitable to the state of the fishery in 2016.</p> <p>The Department proposes the new conditions should require the Queensland Department of Agriculture and Fisheries to:</p> <ul style="list-style-type: none"> <li>a) work with relevant stakeholders to determine an improved data collection and validation approach that can validate the number of interactions with all bycatch, which will include protected species, and</li> <li>b) implement appropriate mitigation measures to ensure interactions with all bycatch, which will include protected species, are kept to a minimum.</li> </ul>

	These new conditions are described in full at <b>Table 3</b> .
(6) A condition may relate to reporting or monitoring.	Part (a) of the proposed condition relates to reporting and monitoring.
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	The Department will advise you if the proposed new conditions are 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>3</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.

<sup>3</sup> Convention on International Trade in Endangered Species of Wild Fauna and Flora



**Part 13A**

Section 303FT Additional provisions relating to declarations	The Department's assessment of the Queensland East Coast Inshore Fin Fish Fishery
<p>(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.</p>	<p>A declaration for the East Coast Inshore Fin Fish Fishery was made under section 303FN in October 2015. This declaration was made by the then Minister's delegate following two periods of public consultation. All public comments received were considered in the making of the declaration.</p>
<p>(4) The Minister may make a declaration about a plan or operation even though he or she considers that the plan or operation should be the subject of the declaration only:</p> <p>(a) during a particular period; or            (b) while certain circumstances exist; or            (c) while a certain condition is complied with.</p> <p>In such a case, the instrument of declaration is to specify the period, circumstances or condition.</p>	<p>This declaration, made by the then Minister's delegate, was limited to a particular period by a condition on the instrument of declaration.</p>
<p>(5) If a declaration specifies a particular period as mentioned in subsection (4), the declaration ceases to be in force at the end of that period.</p>	<p>Under the current condition that specifies a particular period, the declaration will cease to be in force on 16 September 2016.</p>
<p>(6) If a declaration specifies circumstances as mentioned in subsection (4), the Minister must, by instrument published in the <i>Gazette</i>, revoke the declaration if he or she is satisfied that those circumstances have ceased to exist.</p>	<p>No other circumstances are currently specified on the instrument of declaration.</p>

(7) The Minister may, by instrument published in the *Gazette*, vary a declaration by:

(a) specifying one or more conditions (or further conditions) to which the declaration is subject; or

(b) revoking or varying a condition:

(i) specified in the instrument of declaration; or

(ii) specified under paragraph (a).

The Department recommends that you vary the existing declaration instrument by:

a) specifying seven new conditions, and

b) varying the existing condition that specifies the period of the declaration, to extend this period to 28 September 2018.

Extending the period of the declaration will allow export of the product harvested in the fishery to continue for a further two years. The new conditions will require action from the Queensland Department of Agriculture and Fisheries to improve particular management arrangements in the fishery over this period, in order to retain this export approval.

The Department proposes the seven new conditions should require the Queensland Department of Agriculture and Fisheries to:

1. continue operation of the fishery in accordance with appropriate legislation
2. inform the Department of any significant changes in management arrangements
3. provide annual reports to the Department on the fishery's environmental performance
4. develop a harvest strategy for key fish and shark species
5. improve data collection and validation to allow evaluation of the harvest strategy and the fishery's risk to bycatch species
6. provide education tools to assist fishers with species specific identification for sharks and commence management changes for the processing of sharks at sea
7. improve understanding of the stock status of significant species currently classified as 'undefined' or 'not assessed'

	These proposed seven new conditions, and the rationale for each, are described in full at <b>Table 3</b> .
(8) A condition may relate to reporting or monitoring.	The proposed <b>Condition 3</b> and <b>Condition 5</b> relate to reporting.
(9) The Minister must, by instrument published in the <i>Gazette</i> , revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.	The Department will advise you if the proposed new conditions are contravened.
(10) The Minister may, by instrument published in the <i>Gazette</i> , revoke a declaration at any time.	
(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 East Coast Inshore Fin Fish Fishery made under sections 303FN and the conditions under section 303FT will be gazetted and made available through the Department's website.

**Part 12**

Section 176 Bioregional Plans	The Department's assessment of the Queensland East Coast Inshore Fin Fish Fishery
<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 303AA and section 303FT, as the Temperate East Marine Region overlaps with the southern part of the fishery. This plan identifies three key ecological features present in the area of the fishery, the upwelling off Fraser Island, the canyons on the eastern continental slope and the Tasmantid seamount chain.</p> <p>Extraction of living resources by commercial fishing has been identified as a pressure operating on these three key ecological features. However this pressure has been identified as being 'of potential concern' only. The plan further notes that this assessment is conservative in the context of active fisheries management, as is undertaken by the Queensland Department of Agriculture and Fisheries for the East Coast Inshore Fin Fish Fishery.</p> <p>Bycatch by commercial fishing has also been identified as a pressure operating on these key ecological features, with bycatch of marine turtles and dugong being listed as a regional concern. While these pressures are also listed as being 'of potential concern' only, accurate assessment of these pressures would benefit from improved monitoring and reporting of protected species interactions in the East Coast Inshore Fin Fish Fishery. The proposed <b>Part 13 Condition</b> and <b>Condition 5 (Table 3)</b> seek to address this by requiring the Queensland Department of Agriculture and Fisheries to improve monitoring and reporting of protected species interactions and bycatch.</p> <p>However, the Department considers that overall, the impact of the fishery on the conservation values identified in the marine bioregional plan is low.</p>

## SUMMARY OF ASSESSMENT IN 2016

### The Department of the Environment and Energy's conditions and recommendation to the Queensland Department of Agriculture and Fisheries for the Queensland East Coast Inshore Fin Fish Fishery

The Queensland East Coast Inshore Fin Fish Fishery is a net and line fishery that primarily operates in waters inside the Great Barrier Reef. It is a diverse fishery, with a large number of small operators, multiple target species and many other species that interact with fishing activities. There are significant removals of fish from the area of the fishery by other ocean users, with catches by recreational fishers in Queensland exceeding the retained harvest of this commercial fishery, requiring complementary management arrangements.

#### Target stocks

The Department considers that overall the management regime for the East Coast Inshore Fin Fish Fishery aims to ensure that fishing is conducted in a manner that does not lead to overfishing. Entry into the fishery is limited, there are gear restrictions in place to control harvest, as well as seasonal closures, species-specific size restrictions and total allowable catch limits in place for key stocks. Around two thirds of the retained annual catch comprises species that have been formally assessed as being harvested at sustainable levels.

However, the stock status of shark species targeted in the fishery remains uncertain and must be clarified. Species-specific reporting for sharks must also be improved, along with measures to tighten regulations for the processing of sharks at sea. A harvest strategy for all key fish and shark species should be developed, with improved data collection and validation to allow robust evaluation of this strategy.

#### Non-target stocks

Management is generally less robust for byproduct, bycatch and protected species that are caught or interact with this fishery. There are limited measures in place to confidently monitor, assess and evaluate of the impact of commercial fishing on these species. Improved data collection and evaluation, along with improved species identification and species-specific reporting must be developed to reduce the risks and uncertainties identified around this fishery's impact on non-target stocks.

#### Ecosystem Impacts

Taking into account the management measures described above, including catch and gear restrictions, seasonal closures and regular stock assessment for most key species, the Department considers that the management regime for the East Coast Inshore Fin Fish Fishery provides for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

#### Conclusion

The Department considers that, until it can be demonstrated that the issues identified above have been adequately addressed, extending the wildlife trade operation declaration for two years, until 28 September 2018, is appropriate. To address the issues identified above, the Department considers that the wildlife trade declaration and the Part 13 accreditation for the fishery should be varied to be subject to the conditions listed in **Table 3**. To contain and minimise the risks in the longer term the recommendation in **Table 3** has also been made.

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

**TABLE 4: Queensland East Coast Inshore Fin Fish Fishery Assessment – Summary of Issues, Conditions and Recommendation September, 2016**

Issue	Part 13A Condition
<p><u>General Management</u>            Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of the Environment and Energy needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, EPBC Act protected species or the ecosystem.</p>	<p><b>Condition 1:</b>            Operation of the Queensland East Coast Inshore Fin Fish Fishery will be carried out in accordance with the Queensland <i>Fisheries Act 1994</i> and the Queensland Fisheries Regulation 2008.</p> <p><b>Condition 2:</b>            The Queensland Department of Agriculture and Fisheries to inform the Department of the Environment and Energy of any intended material changes to the Queensland East Coast Inshore Fin Fish Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.</p>
<p><u>Annual Reporting</u>            It is important that reports be produced and presented to the Department annually in order for the performance of the fishery and progress in implementing the conditions and recommendation in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration. Annual reports should follow Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> and include a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with EPBC Act protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing the Department's conditions and recommendations. 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>            The Queensland Department of Agriculture and Fisheries to produce and present reports to the Department of the Environment and Energy annually as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p>

Issue	Part 13A Condition
<p><u>Fishery harvest strategy</u></p> <p>Currently, a comprehensive framework to allocate fisheries resources fairly and sustainably between commercial and recreational sectors is not in place in the East Coast Inshore Fin Fish Fishery. Without a strategy or policy to provide guidance on resource allocation, there is a risk of inconsistent and/or unpredictable fisheries management decisions, particularly over longer timeframes. In 2014, the Queensland Government commissioned a review of fisheries management in Queensland, which proposed a central management strategy to allocate resources transparently across all sectors and the environment. Recommendations for the design of a future fisheries management system are contained within the report 'Taking stock: modernising fisheries management in Queensland' (MRAG 2014).</p> <p>The Department agrees with an important finding of this report that all Queensland fisheries, including the East Coast Inshore Fin Fish Fishery, should be subject to clear harvest strategies aimed at meeting agreed stock management objectives. The harvest strategy should clearly identify key species and incorporate decision rules that have been developed in consultation with stakeholders. Harvest strategies can be tested using these rules and data to ensure that risk is contained within acceptable levels and that underlying uncertainties (about productivity of stocks or stock structure) are robustly considered. Harvest strategies can be effectively used in fisheries with variable levels of data, such as the East Coast Inshore Fin Fish Fishery.</p> <p>The Department notes that this fishery already has a Performance Measurement System that contains triggers that, if reached, require review of the management arrangements within specified timeframes. However, this system has not been used to monitor the performance of the fishery since the Department's last assessment in 2012, due to the Review into Management Arrangements for Queensland Fisheries.</p> <p>The Department acknowledges the Queensland Department of Agriculture and Fisheries' efforts to determine the stock status of key commercial species caught in the East Coast Inshore Fin Fish Fishery. However, the absence of a harvest strategy in a fishery of this scale is of significant concern. The lack of decision rules impairs capacity to ensure the</p>	<p><b>Condition 4:</b></p> <p>The Queensland Department of Agriculture and Fisheries to develop a strategy for the harvest of key fish and shark species taken in the Queensland East Coast Inshore Fin Fish Fishery in consultation with relevant experts and stakeholders. The strategy should include decision rules and reference points that trigger management actions to ensure catch limits remain ecologically sustainable.</p>

Issue	Part 13A Condition
<p>fishery is being managed sustainably, as there is no established course of action to prevent unsustainable exploitation of fish and shark species.</p>	
<p><u>Reliable fisheries monitoring</u>  Given uncertainty in stock status for a number of fin fish and shark species in the East Coast Inshore Fin Fish Fishery and in the absence of a fishery based ecological risk assessment, there is an ongoing need for the Queensland Department of Agriculture and Fisheries to acquire information to support the ecologically sustainable management of the fishery. The Department acknowledges the considerable body of information collected by the observer program until it ceased in 2012 however, ongoing collection of reliable information is critical for understanding the impacts the fishery is having on the ecosystem, fin fish, sharks and bycatch, including EPBC Act protected species.</p> <p>The <i>Great Barrier Reef Outlook Report 2014</i> highlights the importance of accurate and ongoing data collection for managing the impacts of fishing on the environment and for maintaining sustainability, particularly within the Great Barrier Reef World Heritage Area where the East Coast Inshore Fin Fish Fishery operates.</p> <p>The Department considers it essential that the Queensland Department of Agriculture and Fisheries develop, implement and maintain a statistically robust monitoring regime for the fishery which will allow:</p> <ul style="list-style-type: none"> <li>• completion of stock assessments and the development of a strategy for harvest of fin fish, sharks and at-risk species (as per <b>Condition 4</b>)</li> <li>• identification of risks to target, byproduct and bycatch species, and for protected species at a regional level, and</li> <li>• improved stakeholder confidence in effectiveness of fishery management measures</li> </ul> <p>This program should provide data that is independent of (and complementary to) fisher logbook data, be risk based and designed in consultation with relevant experts. It should also focus on those sectors in the fishery where key target and at-risk species are caught, and/or that are likely to interact with protected species. Fishery monitoring data should continue to be analysed and reported publicly, such as through the annual status reports for the fishery.</p>	<p><b>Condition 5:</b>  The Queensland Department of Agriculture and Fisheries to work with relevant stakeholders to determine an improved data collection and validation approach that can provide a robust monitoring regime to inform and allow evaluation of the strategy outlined in Condition 4, and the fishery's risk to bycatch species.</p>



Issue	Part 13A Condition
<p><u>Accurate recording of sharks to species level</u></p> <p>The correct identification and reporting of sharks to species level is important in assessing the impact of a fishery on shark populations and for determining appropriate levels of sustainable shark harvest. The management of shark species through a grouped (or 'complex) approach can therefore be problematic as one or more individual species may become overfished within the group without appropriate management intervention to prevent this. While recognising challenges with correct species identification, this remains crucial for the sustainability of shark species, particularly for high risk species such as Australian black tip sharks and hammerhead sharks within the Great Barrier Reef World Heritage Area.</p> <p>Hammerhead sharks were listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in September 2014, following concerns of global depletion. Accurate reporting of hammerhead shark catch in the East Coast Inshore Fin Fish Fishery is important to enable ongoing assessments of Australia's catch and trade to continue. A particular challenge for correct shark identification in Queensland arises from the allowable practice of filleting at sea. While there are clear practical advantages of filleting sharks at sea, this practice allows significant risk that the sharks may not be recorded correctly and high risk species may be landed without being identified. The Department considers it important that all sharks be landed intact to aid accurate identification to species level.</p> <p>The Department acknowledges the Queensland Department of Agriculture and Fisheries' ongoing commitment to education programs and the targeted workshops held since 2012 which aimed to improve the identification and reporting of key species, including sharks. The Department considers it important that these education programs and workshops continue so that shark species can be identified correctly to species level and accurate catch data can be used to inform stock assessments.</p> <p><u>Removal of shark fins (finning)</u></p> <p>'Finning' of sharks (removing the fins at sea and dumping the carcasses or 'trunks') has been identified as a threat to sharks globally. This practice is illegal in Queensland, and</p>	<p><b>Condition 6:</b></p> <p>The Queensland Department of Agriculture and Fisheries to:</p> <ul style="list-style-type: none"> <li>a) provide appropriate identification tools and education to assist fishers in providing accurate identification and recording of sharks at the species level.</li> <li>b) Commence consultation with stakeholders on alternate provisions for the processing of sharks at sea including; introducing a prohibition on the removal of fins and filleting sharks.</li> </ul>

Issue	Part 13A Condition
<p>trunks of all sharks and rays caught must be landed. However, the Department remains concerned that the allowed practice of separating fins from the trunks of sharks in Queensland is a compliance risk, given the high value of fins.</p> <p>Noting the emergence of advanced tools to assist in managing compliance with anti-finning regulations, the Department considers that the Queensland Department of Agriculture and Fisheries should commence work to ban the removal at sea of fins from sharks caught in the East Coast Inshore Fin Fish Fishery and for those fins to remain naturally attached to the shark carcass.</p>	
<p><u>Management of fin fish stocks</u></p> <p>There are 78 fin fish species listed as retained in the East Coast Inshore Fin Fish Fishery. Of these, 23 species (37 %) have a definitive stock status described in the Stock Status of Queensland's Fisheries Resources 2012 Report. The status of the remaining 63 % of species is not described. Several recreationally and commercially important East Coast Inshore Finfish species, including king threadfin, golden snapper, black jewfish, cobia and javelin fish or grunter, are described as uncertain or undefined in either the Stock Status of Queensland's Fisheries Resources 2012 Report or the Status of Key Australian Fish Stocks 2014 Report. There are a number of recreationally and commercially important species harvested in the fishery that are not considered in either of these two published summary reports, including mangrove jack, queenfish, and garfish.</p> <p>The Department has identified a number of concerns regarding the vulnerability of tropical threadfin species due to these species' life history characteristics (slow to mature, low natural mortality) and susceptibility to capture as bycatch in the fishery's inshore net sector prior to sexual maturity (GBRMPA, 2012). Also, while the stock status of grey mackerel is defined as 'sustainable' in the Status of Key Australian Fish Stocks 2014, there are concerns with the potential for localised depletion of spawning aggregations of grey mackerel in the fishery (GBRMPA, 2012); as identified in the 2014 East Coast Grey Mackerel Stock Assessment. The Department has further concerns about the demonstrable sustainability of all recreationally and commercially important</p>	<p><b>Condition 7:</b></p> <p>The Queensland Department of Agriculture and Fisheries to continue work to improve understanding of stock status of identified recreationally and commercially important species which are currently classified as 'undefined' through:</p> <ul style="list-style-type: none"> <li>a) biological monitoring for these species, and</li> <li>b) publication of this information, along with catch and effort data, in stock status reports.</li> </ul>

Issue	Part 13A Condition
<p>East Coast Inshore Finfish species where the stock status is “uncertain” or “undefined”. While acknowledging that biological monitoring (collection of age, length, sex and mortality data) occurs for grey mackerel, dusky flathead, yellowfin bream, sand whiting, tailor, barramundi, sea mullet and spotted mackerel, it remains important that the Queensland Department of Agriculture and Fisheries increases knowledge about the stock status of other key commercial and recreational species caught in the fishery, including king threadfin, black jewfish, golden snapper, garfish, cobia and javelin (grunter). The collection of biological information will aid in the sustainable management of these species.</p>	
<p><u>Export approval timeframe</u> The Department seeks a number of improvements to the management regime for this fishery, as reflected in <b>Conditions 4-7</b>. While the Queensland Department of Agriculture and Fisheries makes progress towards meeting these conditions, the Department considers that a time-limited declaration of the East Coast Inshore Fin Fish Fishery as an approved wildlife trade operation is appropriate</p>	<p><b>Condition 8:</b> Unless otherwise amended or revoked, this declaration is valid until 28 September 2018.</p>

Issue	Part 13 Condition
<p><u>Reliable fisheries monitoring</u></p> <p>Given uncertainty in stock status for a number of fin fish and shark species in the East Coast Inshore Fin Fish Fishery and in the absence of a fishery based ecological risk assessment, there is an ongoing need for the Queensland Department of Agriculture and Fisheries to acquire information to support the ecologically sustainable management of the fishery. The Department acknowledges the considerable body of information collected by the observer program until it ceased in 2012 however, ongoing collection of reliable information is critical for understanding the impacts the fishery is having on the ecosystem, fin fish, sharks and bycatch, including EPBC Act protected species.</p> <p>The <i>Great Barrier Reef Outlook Report 2014</i> highlights the importance of accurate and ongoing data collection for managing the impacts of fishing on the environment and for maintaining sustainability, particularly within the Great Barrier Reef World Heritage Area where the East Coast Inshore Fin Fish Fishery operates.</p> <p>The Department considers it essential that the Queensland Department of Agriculture and Fisheries develop, implement and maintain a statistically robust monitoring regime for the fishery which will allow:</p> <ul style="list-style-type: none"> <li>• identification of risks to target, byproduct and bycatch species, and for protected species at a regional level, and</li> <li>• improved stakeholder confidence in effectiveness of fishery management measures</li> </ul> <p>This program should provide data that is independent of (and complementary to) fisher logbook data, be risk based and designed in consultation with relevant experts. It should also focus on those sectors in the fishery where at-risk species are caught, and/or that are likely to interact with protected species. Fishery monitoring data should continue to be analysed and reported publicly, such as through the annual status reports for the fishery.</p>	<p><b>Condition A:</b> Queensland Department of Agriculture and Fisheries to:</p> <ul style="list-style-type: none"> <li>a) work with relevant stakeholders to determine an improved data collection and validation approach that can validate the number of interactions with all bycatch, which will include protected species, and</li> <li>b) implement appropriate mitigation measures to ensure interactions with protected species are kept to a minimum.</li> </ul>

Issue	Recommendation
<p><u>New and existing monitoring technologies</u></p> <p>The Department is aware that a variety of new and existing technologies, such as on-board video cameras and vessel monitoring systems, are available and may have the potential to reduce some of the challenges associated with monitoring a large and diverse fishery. While recognising that the nature of the East Coast Inshore Fin Fish Fishery, with large numbers of very small boats, does not readily lend itself to the use of such technology, the Department considers that the Queensland Department of Agriculture and Fisheries should collaborate with other relevant jurisdictions to ensure that opportunities to utilise new monitoring techniques are recognised and implemented as appropriate. This may be particularly relevant to the 'N4' sector of the fishery where longer net lengths are permitted, larger fishing vessels are typically used and fishing is conducted over a wider area than in most other sub-fisheries.</p>	<p><b>Recommendation 1:</b></p> <p>The Queensland Department of Agriculture and Fisheries to work with industry and other jurisdictions to pursue and support the uptake of new and or existing monitoring technologies to better monitor fishing activity in the East Coast Inshore Fin Fish Fishery.</p>

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