



Australian Government

Department of the Environment and Energy

**Assessment of the
Commonwealth Eastern Tuna and Billfish Fishery**

August 2019

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Disclaimer

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

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EXECUTIVE SUMMARY OF THE ASSESSMENT OF THE COMMONWEALTH EASTERN TUNA AND BILLFISH FISHERY

In May 2019, the Australian Fisheries Management Authority (AFMA) submitted an application for the Commonwealth Eastern Tuna and Billfish Fishery (the fishery) to the Department of the Environment and Energy (the Department) for assessment as an approved wildlife trade operation under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The sustainability of the fishery's management arrangements have also been assessed against the Australian Government's 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'. A public comment period was open from 16 May 2019 to 17 June 2019. The Department received two comments summarised at Section 3 of this report.

Management arrangements

The fishery operates in state and Commonwealth waters from Cape York in Queensland to the Victorian and South Australian border, and extends beyond the limit of the Australian Fishing Zone (AFZ).

The Western and Central Pacific Fisheries Commission (WCPFC) was established to manage highly migratory species that occur across the western and central Pacific ocean. The Australian component of the fishery is managed by AFMA in accordance with the *Eastern Tuna and Billfish Fishery Management Plan 2010* made under the *Fisheries Management Act 1991* (Cth). Fishing is currently regulated by the *Fisheries Management Regulations 1992* (Cth), which will be repealed on 1 October 2019, and replaced by the *Fisheries Management Regulations 2019* (Cth). AFMA consider outcomes from WCPFC stock assessments and other information when making management decisions.

Offshore Constitutional Settlement (OCS) arrangements are in place to manage key species harvested in fisheries managed by other jurisdictions along Australia's east coast. Southern Bluefin Tuna (SBT) may be taken as byproduct with the relevant permits and SFRs under the *SBT Fishery Management Plan 1995*, and requirements of the Convention for the Conservation of SBT.

Harvesting is managed through a range of input (effort) and output (catch) controls, including statutory fishing rights, quota management system, mandatory reporting, vessel monitoring systems, and strategies to manage bycatch and protected species. Catch limits are linked to the fishery harvest strategy. The fishery uses longline and minor line (pole and line, handline, troll, and rod and reel). Gillnets may be used under permit. A limited number of permits are granted for fishing operations in the Coral Sea Zone and the high seas.

Target stocks

The five primary target species are Albacore Tuna, Bigeye Tuna, Yellowfin Tuna, Broadbill Swordfish, and Striped Marlin. Some other primary and key secondary species may have catch limits or trip limits. A number of conservation dependent or protected species have no take restrictions.

Protected species and ecosystems

The fishery is known to interact with a number of species listed under the EPBC Act. AFMA is actively managing interactions with these species through protected species management strategies, and a bycatch strategy (within the ETBF Fishery Management Strategy – FMS) aligned to the Commonwealth bycatch policy, and including an ecological risk assessment and management (ERA and ERM) process that leads to management responses. No take rules apply to a number of shark species.

The assessment considered the possible impact of fishing on shark species listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Given the fishery's management arrangements in place to monitor and control the level of harvest of CITES species, the Department considers that the fishery will not be detrimental to the survival of any taxon to which the CITES specimen belongs in the short to medium term.

Fishing methods are not considered to have a significant impact on the marine ecosystem. Ecosystem impacts are mostly concerned with TEPS interactions and bycatch.

Research and monitoring

AFMA has facilitated a number research and studies to ensure the fishery is managed sustainably.

Conclusion

Following assessment, the fishery has been found to meet most of the Guidelines (Section 2) and the majority of the requirements of the EPBC Act (Section 3). The Department considers that the management regime for the fishery provides for fishing operations to be managed in a manner that minimises its impact on the structure, productivity, function and biological diversity of the ecosystem. Notwithstanding the progress made by AFMA to address the key challenges faced by this fishery, the Department has identified a number of risks and uncertainties that must be managed to ensure that impacts are reduced, including interactions with protected species, and the incidental take of sharks.

On this basis, the Department considers that the declaration of the harvest operations for the fishery as an approved wildlife trade operation for three years, until 19 August 2022, is appropriate. The Department has also determined that product taken in the fishery should be included in the list of exempt native specimens under Part 13A of the EPBC Act while the declaration is in place. To ensure that this decision remains valid, the conditions listed at Section 4 will apply. 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.

SECTION 1: ASSESSMENT SUMMARY OF THE COMMONWEALTH EASTERN TUNA AND BILLFISH FISHERY AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION), CONSISTENT WITH THE EPBC ACT

Guidelines assessment	Meets	Partially meets	Does not meet	Details
Management regime	9 of 9			<p>The Eastern Tuna and Billfish Fishery (ETBF) is managed by the Australian Fisheries Management Authority (AFMA) in accordance with the <i>Eastern Tuna and Billfish Fishery Management Plan 2010</i> made under the <i>Fisheries Management Act 1991</i> (Cth). AFMA has developed an ETBF Fishery Management Strategy (FMS), which is anticipated for public release in August 2019. This strategy will incorporate information from a range of existing management documents, including ecological risk assessments for the fishery.</p> <p>Overall, the management regime for the fishery aims to ensure that fishing is conducted in a manner that does not lead to overfishing. The Department has considered concerns raised through public comments, and has consulted with AFMA in relation to managing those concerns into the future.</p>
Principle 1 (target stocks)	9 of 11	2 of 11		<p>Highly migratory species stocks are managed in consultation with the Western and Central Pacific Fisheries Commission. All quota-managed stocks are considered to be sustainably fished.</p> <p>Given the arrangements in place for the fishery, the Department considers that the management regime aims to ensure that fishing is conducted in a manner that reduces the risk of overfishing, and the operation of the fishery will not be detrimental to the survival or conservation status of the target species in the short term.</p>
Principle 2 (bycatch and TEPS)	8 of 12, plus 2 n/a	2 of 12		<p>The introduction of electronic monitoring has improved monitoring and recording for protected species and bycatch. It is important that monitoring practices are assessed and improvements implemented as required. The collection of accurate and up-to-date information will inform the development of improved strategies to minimise impacts, and will also assist in managing the incidental capture of shark species listed on Appendix II of CITES.</p> <p>While the fishery is well managed, a number of risks and uncertainties have been identified in relation to bycatch and interactions with protected species.</p>
Principle 2 (ecosystem impacts)	5 of 5			<p>AFMA has advised that the anticipated ETBF FMS will include information from revised ecological risk assessments for the fishery.</p>

				Based on the available information, including the management arrangements put in place by AFMA and the WCPFC, the Department considers that the fishing operations will be managed in a manner that minimises the impact on the structure, productivity, function and biological diversity of the ecosystem.
EPBC requirements	Meets	Partially meets	Does not meet	Details
Part 12	All			A number of key ecological features (KEFs) and conservation values are identified in management plans for the Temperate East marine bioregion. Ongoing monitoring, assessment and management is required to ensure that fishing activities do not have adverse impacts on any of these KEFs or conservation values.
Part 13	6 of 9	3 of 9		The fishery interacts with a number of species protected under Part 13 of the EPBC Act. AFMA has advised that interactions will continue to be monitored and management measures implemented as required. Ongoing export approval is subject to conditions for the ongoing protection for EPBC Act listed species (see Section 4).
Part 13A	All			While the fishery meets the objectives of Part 13A of the EPBC Act, there is an ongoing need to manage a number of issues summarised at Section 4 of this assessment report.
Part 16	All			Although a number of risks and uncertainties exist, precautionary measures are considered to be in place to prevent serious or irreversible environmental damage being caused by this fishery.

Notes:**Assessment history for the Commonwealth Eastern Tuna and Billfish Fishery (ETBF):**

- Information on previous assessments is available on the Department's website at <http://www.environment.gov.au/marine/fisheries/commonwealth/eastern-tuna-billfish>.
- **1st assessment finalised March 2005** – Declared an approved wildlife trade operation (WTO) until 20 July 2008. List of exempt native specimens (LENS) amended to include specimens from the fishery while the declaration is in place for the fishery. Export approval was subject to 15 recommendations. In December 2005, the *Eastern Tuna and Billfish (ETB) Fishery Management Plan 2005* accredited under Part 13 of the EPBC Act. In April 2006, the *ETB Fishery Management Plan 2005* accredited pursuant to section 33 of the EPBC Act.
- **2nd assessment finalised July 2008** – Declared an approved WTO until 20 January 2011. LENS amended to include specimens from the fishery while the declaration is in place. Export approval subject to three conditions and 15 recommendations. LENS further amended until 01 March 2011.
- **3rd assessment finalised March 2011** – Declared an approved WTO until 26 February 2014. LENS amended to include specimens from the fishery while the declaration is in place. Export approval was subject to six conditions and six recommendations. *ETB Fishery Management Plan 2010* accredited under Part 13 of the EPBC Act in February 2010, and accredited pursuant to section 33 of the EPBC Act in February 2011. LENS was further amended until 28 August 2014.
- **4th assessment finalised September 2014** – Declared an approved WTO until 13 September 2017. LENS amended until 22 August 2019. Export approval subject to seven recommendations. Management arrangements accredited under Part 13 in August 2014.

Key links:

- Eastern Tuna and Billfish Fishery information webpage – <https://www.afma.gov.au/fisheries/eastern-tuna-and-billfish-fishery-page>.
- Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean – <https://www.wcpfc.int/home>.
- Annual reports for Commonwealth fisheries – <https://www.afma.gov.au/about/corporate-publications>.
- Tropical Tuna Management Advisory Committee (TTMAC) – <https://www.afma.gov.au/fisheries/committees/tropical-tuna-management-advisory-committee-tropical-tuna-mac>.
- Tropical Tuna Resource Assessment Group (TTRAG) – <https://www.afma.gov.au/fisheries/committees/tropical-tuna-resource-assessment-group>.
- Australian Tuna and Billfish Fishery (ATBF) five year strategic plan 2017–2021 – <https://www.afma.gov.au/sites/default/files/uploads/2017/10/ATBF-Five-Year-Strategic-Plan-2017-2021-updated-format.pdf>.
- ETBF annual research statement 2017–18 – <https://www.afma.gov.au/sites/default/files/uploads/2017/06/BSCZSF-Annual-Research-Statement-2017-2018.pdf>.
- E-monitoring (ETBF) Direction 2015 No. 2 – <https://www.legislation.gov.au/Details/F2015L00732>.
- ETBF (Total Allowable Commercial Catch) (Undercatch and Overcatch) Determination 2018 – <https://www.legislation.gov.au/Details/F2018L01554>.
- ETBF Fishing Season Determination 2011 – <https://www.legislation.gov.au/Details/F2011L00234>.
- Fisheries Management (Fish Receiver Permits) Declaration 2018 – <https://www.legislation.gov.au/Series/F2018L01309>.
- Offshore Constitutional Settlement agreements, Attorney-General's Department, Canberra, ACT – <https://www.ag.gov.au/Internationalrelations/InternationalLaw/Pages/TheOffshoreConstitutionalSettlement.aspx>.
- Southern Bluefin Tuna Fishery information – <https://www.afma.gov.au/fisheries/southern-bluefin-tuna-fishery>.

Legislation

- *Fisheries Management Act 1991* (Cth) – <https://www.legislation.gov.au/Series/C2004A04237>.
- *Fisheries Management Regulations 1992* (Cth) – <https://www.legislation.gov.au/Series/F1996B03810>. Note these regulations will be repealed on 1 October 2019).
- *Fisheries Management Regulations 2019* (Cth) – <https://www.legislation.gov.au/Series/F2019L00383>. Note these regulations will come into force from 1 October 2019.

Management arrangements:

- *ETBF Management Plan 2010* – <https://www.legislation.gov.au/Series/F2011L00120>.
- ETBF management arrangements booklet – <https://www.afma.gov.au/fisheries-services/fisheries-management-plans>.

Harvest strategy

- Commonwealth fisheries harvest strategy policy and guidelines – http://www.agriculture.gov.au/fisheries/domestic/harvest_strategy_policy.
- ETBF harvest strategy – <https://www.afma.gov.au/sustainability-environment/harvest-strategies>.
- Western and Central Pacific Fisheries Commission (WCPFC) harvest strategy and reference points – <https://www.wcpfc.int/harvest-strategy>.

Risk management:

- AFMA's ecological risk management strategies for Commonwealth commercial fisheries – <https://afma.govcms.gov.au/sustainability-environment/ecological-risk-management-strategies>.
- WCPFC Conservation and management of sea turtles (CMM2018-04) – <https://www.wcpfc.int/conservation-and-management-measures>.
- AFMA's bycatch and discard program – <https://www.afma.gov.au/sustainability-environment/bycatch-discarding>.
- AFMA's protected species interaction reports – <https://www.afma.gov.au/sustainability-environment/protected-species-management/protected-species-interaction-reports>.

Compliance

- WCPFC Monitoring, Control and Surveillance (MCS) and Compliance Monitoring – <https://www.wcpfc.int/wcpfc-monitoring-control-and-surveillance-mcs-scheme>.
- WCPFC Conservation and Management Measure for Compliance Monitoring Scheme (CMM2018-07) – <https://www.wcpfc.int/conservation-and-management-measures>.
- Rules and regulations, including domestic and international compliance for Commonwealth fisheries – <https://afma.govcms.gov.au/rules-and-regulations>.
- National compliance 2019–21 risk assessment methodology: the compliance risk assessment process – <https://www.afma.gov.au/rules-and-regulations>.
- National compliance and enforcement policy 2017 – <https://www.afma.gov.au/sites/default/files/uploads/2017/07/2017-National-Compliance-and-Enforcement-Policy-with-signed-page.pdf>.

Stock assessments:

- AFMA's catchwatch reports – <https://www.afma.gov.au/fisheries-services/catchwatch-reports>.
- Commonwealth fisheries annual catch and effort data – <https://www.afma.gov.au/resources/catch-data>.
- WCPFC current stock status and advice – <https://www.wcpfc.int/current-stock-status-and-advice>.

SECTION 2: DETAILED ANALYSIS OF THE COMMONWEALTH EASTERN TUNA AND BILLFISH FISHERY AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION)

Guidelines criteria	Comment
THE MANAGEMENT REGIME	
The management regime does not have to be a formal statutory fishery management plan as such, and may include non-statutory management arrangements or management policies and programs. The regime should:	
Be documented, publicly available and transparent.	<p>Meets</p> <p>The Eastern Tuna and Billfish Fishery (the fishery) is managed by the Australian Fisheries Management Authority (AFMA) in accordance with the <i>Eastern Tuna and Billfish Fishery Management Plan 2010</i> (ETB Fishery Management Plan), made under the Commonwealth <i>Fisheries Management Act 1991</i> (FM Act). Fishing is regulated by the Commonwealth <i>Fisheries Management Regulations 1992</i> (FM Regulations 1992) until 1 October 2019, and the <i>Fisheries Management Regulations 2019</i> (FM Regulations 2019) from that date forward.</p> <p>Fishing for highly migratory species in the western and central Pacific Ocean is also regulated by the <i>Fisheries Management (International Agreements) Regulations 2009</i> (Cth). Fishing for Southern Bluefin Tuna (<i>Thunnus maccoyii</i>) is managed in accordance with the <i>Southern Bluefin Tuna (SBT) Management Plan 1995</i>.</p> <p>Commonwealth, state, and Northern Territory governments have developed Offshore Constitutional Settlement (OCS) agreements to manage a range of cross-jurisdictional species stocks such as tuna and billfish. Offshore Constitutional Settlement arrangement agreements are publicly available via the Attorney-General's Department.</p> <p>The management arrangements are also subject to decisions made under the following international and regional agreements:</p> <ul style="list-style-type: none"> • Western and Central Pacific Ocean Commission (WCPFC) is responsible for managing the impact of fishing on all highly migratory species listed in UNCLOS Annex 1, except sauries (Scomberesocidae). Further information is available on the WCPFC website at https://www.wcpfc.int. • The Commission for the Conservation of Southern Bluefin Tuna (CCSBT) manages the impacts to global SBT stocks. See the CCSBT website at https://www.ccsbt.org/en/content/home. <p>See Notes (above) for links to publicly available documents, including legislation, regulations, management plans, policy documents, and international treaty information. Minutes for meetings of the Tropical Tuna Management Advisory Committee (TTMAC) and Topical Tuna Resource Assessment Group (TTRAG) are published on the AFMA website. The management arrangements booklet is published prior to the start of each fishing season.</p> <p>A number of management documents are under review, and not yet publicly available. The ETBF <i>Fishery Management Strategy (FMS) 2019–2024</i> is expected to be released in August 2019.</p>

<p>Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public.</p>	<p>Meets</p> <p>Management arrangements are developed through a consultative process mandated by the FM Act. Comment on draft fishery management plans are open to all interested and affected parties, including the general public. AFMA released the ETB Fishery Management Plan for public comment in October 2010. All comments were considered and incorporated into the final management plan, which came into effect in March 2011 (CoA 2011, p. 170).</p> <p>Stakeholders can also provide input through the TTMAC. Key stakeholders include commercial and recreational fishers, representative bodies for industry and recreational sectors, federal, state and territory government departments, fishery management agencies, and environmental non-government organisations.</p> <p>OCS agreements require regular cross-jurisdictional consultation regarding the management of key species stocks. The Department of Agriculture leads Australia's representation on the WCPFC. AFMA provides input to the WCPFC Scientific Committee regarding the development of complimentary management arrangements across the region.</p>
<p>Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process.</p>	<p>Meets</p> <p>A range of expertise and community interests are represented in management committees. AFMA is an independent agency established by the Commonwealth <i>Fisheries Administration Act 1991</i> (FA Act). The FA Act describes AFMA's responsibilities and specific functions for managing Commonwealth fisheries, and allows AFMA to establish committees to provide scientific and economic advice that support the management of commercial fisheries.</p> <p>The TTMAC is the principal forum by which AFMA engages with interested and affected parties in the fishery. Operators targeting SBT can provide input to the SBTMAC. Membership of management advisory committees include representatives from industry, government agencies, fisheries scientists and fishery economists.</p>
<p>Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured.</p>	<p>Meets</p> <p>The fishery has strategic objectives, aims, reference points, and decision rules to measure the effectiveness of the management arrangements. These are described, with varying levels of detail, in the FM Act, the ETB Fishery Management Plan, management arrangements booklet, and fishery harvest strategy. This information will be integrated into the FMS. See links under Notes above for further information.</p> <p>The <i>Commonwealth Fisheries Harvest Strategy Policy</i> and the <i>Guidelines for the Implementation of the Commonwealth Fisheries Harvest Strategy Policy</i> (see CoA 2018b) provide additional information, including minimum standards for developing harvest strategies for Commonwealth-managed fisheries such as default reference points.</p>
<p>Be capable of controlling the level of harvest in the fishery using input and/or output controls.</p>	<p>Meets</p> <p>The fishery is managed through a complex arrangement of input and output controls, including:</p>

- Management zones – Commonwealth waters within the Australian Fishing Zone (Cape York, Queensland to the Victorian/South Australian border - excluding the Coral Sea Zone); the Coral Sea Zone (Cape York to Proserpine, Queensland); and the High Seas Zone (the Pacific Ocean area beyond the AFZ). Specific requirements (e.g. electronic monitoring, and quota holdings) are in place to fish in an area designated as the Southern Bluefin Tuna Zone off the New South Wales coast during winter.
- Statutory fishing rights (SFRs) – Boat SFRs restrict the number of longline and minor line vessels operating in the fishery. Quota SFRs limit the catch for quota target species.
- Licencing – specific conditions are attached to fishing permits. A limited number of annual permits are granted to fish in the Coral Sea Zone and on the high seas. High seas permits are not transferable.
- Gear and methods – longlining is the primary method used. Minor line methods such as poles, trolling, rod and reels, and handlines designed to catch only one fish at a time are also used. Gillnets may be used under permit. Gear restrictions may also apply to fishing in the Coral Sea Zone.
- Data collection – mandatory recording for retained catches and discards via paper or electronic logs, and catch disposal records. Data is also recorded by fish receivers. Electronic monitoring (EM) is also implemented in the fishery.
- Harvest controls – the Commonwealth harvest strategy (CHS) policy and the CHS guidelines outline the framework for developing and implementing harvest control rules, and guides the development of harvest strategies for individual fisheries. The ETB Fishery harvest strategy contains control measures in line with the Commonwealth harvest strategy (CHS) policy and CHS guidelines. Setting the total allowable commercial catch (TACC) is also guided by the CHS policy, and follows advice from the TTRAG and TTMAC. The CHS policy is not prescribed for fisheries managed under international agreements. The WCPFC is developing harvest strategies for target tuna species, with target reference points agreed for skipjack and albacore tuna stocks and due to be adopted for bigeye and yellowfin tuna stocks in 2019. Limit reference points have been agreed for all of these stocks.
- Quota management system (QMS) – individual transferable quota (ITQ) limits apply to Albacore Tuna (*Thunnus alalunga*), Bigeye Tuna (*T. obesus*), Yellowfin Tuna (*T. albacares*), Broadbill Swordfish (*Xiphias gladius*), and Striped Marlin (*Kajikia audax*).
- Non-quota managed species – catch or trip limits may apply to other primary and key secondary (byproduct) species not managed under quota. Key byproduct species with trip limits include Wahoo (*Acanthocybium solandri*), and sharks (Class Chondrichthyes). A 35 tonne catch limit applies to Longtail Tuna (*Thunnus tonggol*). There are no catch limits for the infrequently encountered Northern Bluefin Tuna (*T. orientalis*), Rays Bream (*Brama australis*), and Skipjack Tuna (*Katsuwonus pelamis*). Catch of Southern Bluefin Tuna (SBT) is under the harvest strategy and management plan for that species.
- Protected species and bycatch – a range of mitigation measures are in place. Landing of Shortfin Mako (*Isurus oxyrinchus*), Longfin Mako (*I. paucus*), and Porbeagle (*Lamna nasus*) sharks is prohibited unless the animal is dead on retrieval. Live specimens must be released to the water immediately. Landing of some species is prohibited, and bycatch limits apply.

	<ul style="list-style-type: none"> • Area (spatial) closures – fishing is prohibited within state and federal marine reserves without an authorisation, including the Great Barrier Reef Marine Park and Lord Howe Island. • Fishing season – fishing is permitted all year starting on 1 January. • Monitoring – AFMA may place observers on ETBF vessels if required. However, since 2015, electronic monitoring (e-monitoring) has been implemented for all vessels operating full time. All vessels must have an AFMA-approved vessel monitoring system (VMS) installed. • International agreements – Regional and international conventions and agreements apply to managing migratory species (see above).
Contain the means of enforcing critical aspects of the management arrangements.	<p>Meets</p> <p>The fishery has an effective enforcement capability in place. AFMA use a risk based compliance strategy (see links under Notes above for further information). High risks identified in the fishery include the potential for non-compliance with mandatory VMS and e-monitoring systems (i.e. surveillance camera), and quota evasion. Measures used to enforce critical aspects of the management arrangements, include:</p> <ul style="list-style-type: none"> • Mandatory reporting requirements that help to ensure the continuous operation of VMS on all pelagic longline vessels. • Regular random vessel inspections (in-port or at-sea) with additional inspections for high risk vessels based on intelligence reports. • Regular inspections of fish receivers, with the possibility of additional inspections based on intelligence reports. • Where required, on-board observers monitor and record catch (target and byproduct), bycatch and protected species interactions. • Compliance officers regularly liaise with fishers and processors. • High seas permits include conditions specific to the vessel and fishing activities. Mandatory pre-trip reports include vessel name and international distinguishing symbol, estimated time/date of departure, port of departure, and fishing destination. • Financial penalties are described in the FM Regulations. <p>The WCPFC has also developed guidelines and procedures to help regulate the effects of fishing across the western and central Pacific region, and a compliance monitoring scheme. Domestically, AFMA enforces WCPFC requirements through SFR conditions. Operators are required to provide WCPFC with estimates of annual catches, number of active vessels, catch and effort data for all fishing operations, including time periods and geographic area, and size composition data (weight, length).</p>
Provide for the periodic review of the performance of the fishery management	<p>Meets</p>

arrangements and the management strategies, objectives and criteria.	<p>The WCPFC has management responsibility for highly migratory species that occur within the western and central Pacific Ocean, and lead the stock assessment process for all quota species. AFMA facilitate stock assessments and research within Australian waters.</p> <p>Performance review timeframes are prescribed for key aspects of the management arrangements. The TACC is reviewed annually. The ETB Fishery Management Plan and the FMS are reviewed every five years. The guide to AFMA's ecological risk management describes the process for reviewing risks (see links under Notes above for further information).</p> <p>The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) review the fishery's ecological and economic performance. This information is reported in annual <i>Fishery Status Reports</i> (see Patterson et al. 2018a). The Fisheries Research and Development Corporation (FRDC) also undertakes independent assessments for a number of key species stocks taken in this fishery. This information is published in the <i>Status of key Australian fish stocks (SAFS) reports</i> (see Stewardson et al. 2018).</p>
Be capable of assessing, monitoring and avoiding, remedying or mitigating any adverse impacts on the wider marine ecosystem in which the target species lives and the fishery operates.	<p>Meets</p> <p>Management arrangements have the capacity to effectively manage the impacts of fishing on the wider marine environment.</p> <p>At least 10 per cent of camera footage captured through e-monitoring is reviewed for each vessel to verify the accuracy of paper and electronic logs. AFMA is committed to ongoing revision and improvements to e-monitoring data collection. AFMA is currently reviewing information relating to camera location and direction, with a view to further improving e-monitoring data collection and removing uncertainties. Human observers or bycatch officers will continue to be placed on vessels with specific bycatch problems.</p>
Requires compliance with relevant threat abatement plans, recovery plans, the National Policy on Fisheries Bycatch, and bycatch action strategies developed under the policy.	<p>Meets</p> <p>The fishery appears to be compliant with all relevant plans, policies and strategies, including the <i>Recovery plan for marine turtles in Australia 2017–2027</i> (DoEE 2017) and the <i>Threat abatement plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations</i> (DoEE 2018).</p>
PRINCIPLE 1 - A fishery must be conducted in a manner that does not lead to over-fishing, or for those stocks that are over-fished, the fishery must be conducted such that there is a high degree of probability the stock(s) will recover.	
Objective 1 - The fishery shall be conducted at catch levels that maintain ecologically viable stock levels at an agreed point or range, with acceptable levels of probability.	
Information requirements	
1.1.1 There is a reliable information collection system in place appropriate to the scale of the fishery. The level of data collection should be based upon an appropriate mix of fishery	Meets

<p>independent and dependent research and monitoring.</p>	<p>Data collection is species-specific, and based on a mix of fishery-dependent and fishery-independent information. Both AFMA and WCPFC have prescribed rules and procedures for data collection and analysis as well as monitoring catches via daily catch logs and on-board observer programs.</p> <p>Fishery dependent data is recorded via paper logbooks or electronic software. Paper logbooks are being phased out and replaced with electronic data collection, which is expected to improve reporting timeframes. Log data includes daily catch and effort for all target and byproduct species, bycatch (discards), protected species interactions, locations fished, gear configuration (e.g. number of hooks, etc.), and fishing methods used (e.g. longline, handline, or poles). Target and byproduct species data is also captured in catch disposal records (CDRs), and cross-referenced with fish receiver records.</p> <p>AFMA and WCPFC have developed research plans for tuna and billfish species.</p> <p>Information from operators and fish receivers is reported to AFMA for analysis and publication. Published catch watch reports allow operators to monitor total and available catch for quota species. Additional information is collected by electronic monitoring, size monitoring program and on-board observers where required, and analysis of VMS data.</p>
<p>Assessment</p>	
<p>1.1.2 There is a robust assessment of the dynamics and status of the species/fishery and periodic review of the process and the data collected. Assessment should include a process to identify any reduction in biological diversity and /or reproductive capacity. Review should take place at regular intervals but at least every three years.</p>	<p>Meets</p> <p>AFMA facilitate scientific assessments for quota-managed species. TACC's for primary target species is set in accordance with the requirements of the Commonwealth Harvest Strategy policy, including using the fishery's harvest strategy for species to which that applies, while risks and catch limits or other management arrangements for other key stocks are determined consistent with the ecological risk assessment framework.</p> <p>Patterson et al. (2018a) classified stocks for all ETBF quota species as <i>not overfished</i> with regard to stock biomass, and <i>not subject to overfishing</i> with regard to fishing mortality (pressure). Swordfish stocks in the south-west Pacific Ocean (Patterson 2018b), and bigeye tuna stocks (Patterson 2018a) and yellowfin tuna (Patterson 2018c) are both considered sustainable.</p> <p>The SAFS report assessed four of the five quota species stocks taken in this fishery, and considers that each of those species are being sustainably fished (Stewardson et al. 2018).</p> <p>The WCPFC has facilitated stock assessments for all target species over the past three years – albacore (Tremblay-Boyer et al 2018), bigeye (McKechnie et al. 2017), broadbill swordfish (Takeuchi et al. 2017), striped marlin (Ducharme-Barth et al. 2019), and yellowfin (Tremblay-Boyer et al. 2017). Williams and Reid (2019) provide an overview of catch statistics for all key species targeted across the western and central Pacific Ocean region. Public comments raised concerns about uncertainty in relation to bigeye stock assessments. The concerns are based on the 2017 stock assessment for this species (see McKechnie et al. 2017). The WCPFC Scientific Committee has since made changes to the stock assessment modelling for bigeye, yellowfin and broadbill swordfish to better understand, treat, and communicate uncertainty (Patterson et al. 2018a). The revised assessment, adopted by the WCPFC Scientific Committee in 2018, indicates that uncertainty has been reduced (WCPFC 2018a) and the stock is being sustainably fished.</p>

<p>1.1.3 The distribution and spatial structure of the stock(s) has been established and factored into management responses.</p>	<p>Meets</p> <p>The distribution and spatial structure for the five quota species is well known (Patterson et al. 2018a). While yellowfin is currently managed as a single biological stock in the western and central Pacific Ocean (Patterson 2018c), new evidence suggests it is possible that genetically distinct populations occur across the Pacific Ocean (Grewe et al. 2015; Patterson et al. 2018c). Stock connectivity has been raised as a concern at WCPFC Scientific Committee meetings. Determining connectivity for yellowfin and other highly migratory species taken in this fishery requires regional collaboration and is an ongoing process. AFMA advise that stock connectivity will continue to be monitored. CSIRO is currently undertaking a genetics-based study that will contribute to improved understanding of connectivity for all five quota species in this fishery (Evans et al. 2017). AFMA advise that management decisions will consider the results of this study, as well as other research undertaken in future across the western and central Pacific Ocean in relation to key stocks taken in this fishery.</p>
<p>1.1.4 There are reliable estimates of all removals, including commercial (landings and discards), recreational and indigenous, from the fished stock. These estimates have been factored into stock assessments and target species catch levels.</p>	<p>Meets</p> <p>Relevant surveys and/or research is undertaken for key species. AFMA consider the findings from that research when making management decisions.</p> <p>Commercial catches are recorded in logbooks and CDRs. Management arrangements include practices to improve accurate identification for quota-managed species and sharks. Information is cross referenced with fish receiver records. VMS and e-monitoring are also used to validate fishing data. AFMA consider these records to be reliable. Logbook and CDR and size monitoring data are used in domestic fishery harvest strategy and indicators, as well as regional WCPFC stock assessments, to help determine appropriate catch levels.</p> <p>There is no reliable estimate for quota species taken by recreational fishers in Australian waters. The game fishing sub-sector is considered to be mostly catch and release.</p>
<p>1.1.5 There is a sound estimate of the potential productivity of the fished stock/s and the proportion that could be harvested.</p>	<p>Meets</p> <p>The available fisheries and other data and information provides inputs to regional and domestic assessments that provide a sound estimate of the fishery's productivity. Adequate abundance data and biological information is available to help estimate a sustainable harvesting level. Mandatory reporting of catch and effort and size data is a key aspect of the management arrangements.</p> <p>A project to revise and update the harvest strategies for striped marlin and broadbill swordfish using a Management Strategy Evaluation testing process is currently being undertaken by AFMA and CSIRO. Regional stock assessments for tuna species provide estimates of the sustainable yields from those stocks, and regional harvest strategies are being developed for those species by the WCPFC. Conservation and management measures (CMM2018-01) for these stocks restrict catches to sustainable levels, taking into account stock productivity (WCPFC 2018a).</p>
<p>Management responses</p>	

<p>1.1.6 There are reference points (target and/or limit), that trigger management actions including a biological bottom line and/or a catch or effort upper limit beyond which the stock should not be taken.</p>	<p>Partially meets</p> <p>The TACC setting process for tropical tuna species takes into account the best available scientific advice. The TTRAG considers information from a range of sources, including the latest local and regional scientific assessments, stock assessment uncertainty, fishery indicators, and advice and recommendations of the WCPFC Scientific Committee in developing scientific advice for the AFMA Commission to make management decisions and set TACCs.</p> <p>The WCPFC harvest strategy process has agreed LRPs of 20 per cent of the pre-fished levels for each of the ETBF tuna quota managed species. While regional TRPs are in place for albacore tuna, the WCPFC Scientific Committee has not agreed on a TRP for bigeye tuna or yellowfin tuna but is scheduled to discuss this issue at the Commission's 16th regular session in December 2019 (WCPFC 2018a).</p> <p>AFMA has advised that it has not developed local harvest strategies for the tuna species the proportion of the catch for each tuna species' stock taken by the ETBF would not allow a domestic harvest strategy to control the stock levels. However, should stock structure research identify very localised stocks of target tuna species, then a domestic harvest strategy approach might be applied to tuna in this fishery in future. In the meantime, the current conservation and management measures and the development of regional harvest strategies and allocation processes will limit catches of these stocks (see links above to WCPFC webpage for conservation and management measures).</p> <p>Management measures for swordfish and striped marlin stocks are consistent with the Commonwealth HS policy. These species are managed under a domestic harvest strategy with reference points based on catch per unit effort (Patterson et al. 2018a). In addition, AFMA is pursuing stronger regional management controls on swordfish stocks through the WCPFC. The most recent assessment for South West Pacific striped marlin indicates that this species stock may be overfished at the regional level and while fishing mortality in recent years has decreased it is close to undergoing overfishing.</p> <p>Stocks are managed consistent with the Commonwealth harvest strategy policy. TACCs are set so they do not exceed internationally agreed catch limits. AFMA has advised that Australia is committed to pursuing the adoption of regional harvest strategies for quota species in collaboration with the WCPFC. The TRP must be adopted by consensus among member states.</p>
<p>1.1.7 There are management strategies in place capable of controlling the level of take.</p>	<p>Partially meets</p> <p>The level of ETBF take is controlled, depending on the species, via the combination of domestic harvest strategy and fishery indicators based TACCs (noting the ETBF harvest strategy is currently being updated), and regional WCPFC conservation and management measures that limit overall catches across the region, and within that, Australia's catches. AFMA applies a mixture of input and output controls, including restrictions on the amount of catch (quota to key target species linked to the fishery harvest strategy) and the number of boat permits. These management strategies align with Australia's obligations to the WCPFC.</p> <p>Performance measures are in place for quota and non-quota managed species. The harvest strategy for Commonwealth fisheries includes a default LRPs of 20 per cent of the unfished biomass. Ecological risk assessment and management processes applied in the ETBF also look to ensure that overfishing does not occur</p>

	<p>on species taken in the fishery. Catch limits also apply for some byproduct species such as Longtail Tuna. OCS agreements also contain catch limits for some species targeted by other jurisdictions.</p> <p>Moving forward, WCPFC is developing harvest strategies for yellowfin, bigeye and albacore tuna. LRPs are in place and adopted in the Conservation and Management Measures for these species. WCPFC is scheduled to deliberate on proposed TRPs for bigeye and yellowfin tuna stocks in 2019, while a TRP was agreed for Albacore Tuna in 2018. For bigeye and yellowfin tuna, CMM2018-01 indicates that, "pending agreement on a TRP, the spawning biomass depletion ratio is to be maintained at or above the average catch rate for 2012–2015" (WCPFC 2018a).</p>
1.1.8 Fishing is conducted in a manner that does not threaten stocks of byproduct species.	<p>Meets</p> <p>The fishery catches a wide range of byproduct (primary or secondary species not managed under quota). Although fishing effort is moderate, the management arrangements impose restrictions on the take of some byproduct species. Operators are required to record the numbers of byproduct species caught or discarded.</p> <p>The risk posed by the fishery to byproduct species is assessed via AFMAs ERA process. The most recent ERA conducted in the fishery in 2018 indicates that the fishery does not pose a high risk to any byproduct species.</p> <p>Trip limits apply to Chondrichthyan as well as certain species under OCS agreements with New South Wales, Queensland, Tasmania, and Victoria. However, there is no limit to the number of trips. Longfin mako, and shortfin mako may be retained if the animal is dead when brought on-board; live mako sharks must be released.</p>
(Guidelines 1.1.1 to 1.1.7 should be applied to byproduct 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.	<p>Meets</p> <p>Given the management arrangements, the fishery is well placed to achieve the objective to conduct fishing operations at ecologically viable stock levels.</p> <p>It is important that the Australian delegation to the WCPFC advocate for developing appropriate measures to return this stock to a sustainable level.</p>
<p>If overfished, go to Objective 2:</p> <p>If not overfished, go to PRINCIPLE 2:</p>	
Objective 2 - Where the fished stock(s) are below a defined reference point, the fishery will be managed to promote recovery to ecologically viable stock levels within nominated timeframes.	
Management responses	
1.2.1 A precautionary recovery strategy is in place specifying management actions, or staged management responses, which are	Meets

linked to reference points. The recovery strategy should apply until the stock recovers, and should aim for recovery within a specific time period appropriate to the biology of the stock.	<p>Southern bluefin tuna is listed as conservation dependent under the EPBC Act. Although this species is managed under a different management plan, it is permitted byproduct in the ETBF. It is therefore important to consider the impact of this fishery on the global SBT stock.</p> <p>This species has been overfished in the past, however recent studies indicate that global SBT stocks are recovering (Patterson and Nicol 2018). A precautionary recovery plan is in place, and the SBT stock taken in this fishery is not subject to overfishing with regard to fishing mortality, based on the outcomes of an updated stock assessment (Patterson et al. 2018b, p. 393). Fishing mortality has improved from 'uncertain' fishing mortality in 2016 to not subject to overfishing, although the estimate of spawning biomass remains under the LRP of 20 per cent (Patterson et al. 2018a).</p>
1.2.2 If the stock is estimated as being at or below the biological and / or effort bottom line, management responses such as a zero targeted catch, temporary fishery closure or a 'whole of fishery' effort or quota reduction are implemented.	<p>Meets</p> <p>Management responses have been implemented, and appear to be effective in improving stock status. The recovery plan includes control measures that limit catch and effort. See management arrangements described above, including the management plan for southern bluefin tuna.</p>
PRINCIPLE 2 - Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.	
Objective 1 - The fishery is conducted in a manner that does not threaten bycatch species.	
Information requirements	
2.1.1 Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.	<p>Meets</p> <p>Bycatch in this fishery is extensive, however there are mitigation measures in place. Bycatch can constitute discarded quota and non-quota species or catches of species that are vulnerable to the effects of fishing, including protected or conservation dependent species.</p> <p>It is mandatory to record and report bycatch data in daily fishing logs. AFMA is phasing out paper logbooks in favour of electronic recording which is expected to improve accuracy and timeliness of data collection. E-monitoring is implemented on all full time boats to help verify logbook reporting. Subsequently, reporting of data on bycatch on logbooks has substantially improved since the introduction of EM.</p> <p>AFMA informs the Department of interactions with protected species, including marine turtles, seabirds, sharks and cetaceans through a summary of logbook records. This information is publicly available on AFMA's website. AFMA is committed to monitoring of fishing operations for interactions with protected species, and to implement new mitigation measures if trigger limits are met.</p>
Assessment	

<p>2.1.2 There is a risk analysis of the bycatch with respect to its vulnerability to fishing.</p>	<p>Meets</p> <p>AFMA recently revised its ERA/ERM framework (AFMA 2017) and the ETBF has recently undergone a revised ERA which included assessment of all bycatch in the fishery. The assessment determined that the fishery did not pose a high risk to any bycatch species interacting with the fishery.</p>
<p>Management responses</p>	
<p>2.1.3 Measures are in place to avoid capture and mortality of bycatch species unless it is determined that the level of catch is sustainable (except in relation to endangered, threatened or protected species). Steps must be taken to develop suitable technology if none is available.</p>	<p>Meets</p> <p>A number of management responses are in place. The <i>Guide to AFMAs ecological risk management</i> describes the broad requirements and expectations for monitoring, assessing and implementing management actions. AFMA's <i>Bycatch strategy: Mitigating protected species interactions and general bycatch</i> contains five principles for managing bycatch in a consistent manner across Commonwealth-managed fisheries. See Notes for links to further information.</p> <p>The <i>Seabird threat abatement plan 2018</i> (Seabird TAP) describes the threats and six key actions required to minimise impacts to seabirds from longline vessels (DoEE 2018). The six actions categories are mitigation, education, international initiatives, research development and implementation, innovation, and data collection and analysis. The fishery has also previously adopted and is currently updating a voluntary industry code of practice to minimise seabird bycatch (AFMA 2012).</p> <p>The ETBF FMS effectively replaced the bycatch and discard work plan. The management arrangements booklet describes mandatory mitigation measures for marine turtles and seabirds, and limits for bycatch species off the Tasmanian, Queensland and NSW coasts (see Notes – Management arrangements). The Conservation and Management of Sea Turtles also describes a number of mitigation measures (WCPFC 2018b). The fishery management plan requires operators to carry and use de-hookers and line cutters, which are known to improve marine turtle survival (DoEE 2017, p. 37).</p>
<p>2.1.4 An indicator group of bycatch species is monitored.</p>	<p>Meets</p> <p>All species are monitored via the logbook and EM data collection and assessment via AFMAs ERA/ERM framework. The ERM framework aims to mitigate impacts for entire species groups rather than individual species. The management arrangements contain a number of measures such as catch logs (paper or electronic) and CDRs, e-monitoring, and on-board observers.</p>
<p>2.1.5 There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.</p>	<p>Meets</p> <p>Decision rules are in place for some species such as sharks that are considered to be at high risk. The ecological risk management report for this fishery describes trigger limits and decision rules for seabirds. The ERA is used to assess risks to all species in which the fishery interacts. AFMAs ERM framework requires that AFMA respond to reduce risks to species identified as at high risk from fishing. Specific management measures are required but not pre-specified as the appropriate management response will differ between species and fisheries.</p>

<p>2.1.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Meets</p> <p>The management arrangements have a medium to high chance of achieving the objective to conduct the fishery in a manner that does not threaten bycatch species. AFMA's ERM framework requires that AFMA respond to reduce risks to species identified as at high risk from its fisheries. Specific management measures are required but not pre-specified as the appropriate management response will differ between species and fisheries. AFMA and industry have shown a commitment to improve monitoring and reporting of interactions, and to develop and implement mitigation measures.</p>
<p>Objective 2 - The fishery is conducted in a manner that avoids mortality of, or injuries to, endangered, threatened or protected species and avoids or minimises impacts on threatened ecological communities.</p>	
<p>Information requirements</p>	
<p>2.2.1 Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities.</p>	<p>Meets</p> <p>The fishery is known to interact with a number of species listed for protection under domestic legislation and international agreements. It is mandatory for operators to record all interactions with threatened, endangered or protected species (TEPS) in catch logs (paper or electronic). Many sharks, albatrosses, shearwaters, and marine turtles were not identified to species level. E-monitoring has the potential to improve the fisheries capacity to accurately identify species and their life status on release, and to review handling and release practices. AFMA has advised that the introduction of e-monitoring, which is audited regularly and includes location at which lines are set, has significantly improved data collection in the fishery. Data may also be collected by independent on-board observers when required.</p> <p>Public consultation on the submission for the fishery raised an apparent lack of publicly available information concerning marine turtle annual interaction rates. However, protected species interaction reports are published on AFMA's website each quarter (see Notes – Ecological risk management). AFMA has also initiated research to model marine turtle interactions.</p> <p>AFMA is committed to minimising fishery impacts on shark populations. Fishery-wide measures have been implemented to reduce the capture and mortality of all shark species, regardless of conservation or ecological risk status. Many shark species encountered in this fishery are considered migratory. Given the need for collaboration between multiple international jurisdictions, research priorities are often lead by the WCPFC Scientific Committee. AFMA has advised of its willingness to participate in data collection and research prioritised as required by the WCPFC Scientific Committee.</p> <p>A local scale assessment by CSIRO of risk posed by the fishery to ecological sustainability of shark bycatch species populations/stocks determined that the fishery did not pose a high risk to any shark populations. However, impacts by other fisheries (state and international) on some shark species populations that the fishery interacts with have been significantly greater and have resulted in a number of species being given protected status under the EPBC Act 1999 or placed under a conservation and management measure by the WCPFC.</p>

	<p>WCPFC has undertaken assessments for four shark species – porbeagle, Thresher (Family: Alopiidae), Silky (<i>Carcharhinus falciformis</i>) and Oceanic Whitetip (<i>Carcharhinus longimanus</i>). Assessments for silky and oceanic whitetip indicate that stocks are subject to overfishing (fishing pressure) and that stock biomass is overfished. WCPFC and ETBF management arrangements prohibit the retention of these species.</p> <p>The fishery does not interact with any threatened ecological community (TEC).</p>
Assessments	
<p>2.2.2 There is an assessment of the impact of the fishery on endangered, threatened or protected species.</p>	<p>Partially meets</p> <p>Since the introduction of electronic monitoring in the ETBF, published research has demonstrated that the level of reporting of protected species interactions has significantly improved. This includes for marine turtles and seabirds.</p> <p>The most recent ERA indicates that this fishery does not pose a high risk to protected species including marine turtle species. A significant number of protected species interactions occurred in this fishery from the third quarter (Jul–Sep) 2014 to first quarter (Jan–Mar) 2019. Shortfin mako (9,525) account for the majority of interactions. High numbers were also reported for silky shark (n=577), Green Turtle (n=193; <i>Chelonia mydas</i>), leatherback turtle (n=180), porbeagle (n=175), and Loggerhead Turtle (n=60; <i>Caretta caretta</i>). Albatrosses and shearwaters account for the majority of the 235 seabird interactions. A large number of protected species were released in unknown condition (i.e. dead or alive).</p> <p>An analysis of the protected species reports indicate that approximately 82 per cent of marine turtles are released alive. Mortality is high for shortfin mako sharks at approximately 43 per cent, while 57 per cent are released in unknown condition (i.e. alive, dead, or injured).</p>
<p>2.2.3 There is an assessment of the impact of the fishery on threatened ecological communities.</p>	<p>Not applicable</p> <p>The ERA considers impacts to habitats and communities. The likelihood of any significant impacts to any TEC is negligible.</p>
Management responses	
<p>2.2.4 There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.</p>	<p>Meets</p> <p>Protected species mitigation strategies are described in the management arrangements and management strategy for the fishery, which incorporates specific management strategies for seabirds, marine turtles and sharks. Monitoring measures include mandatory recording and reporting of interactions on logbooks, and ongoing electronic monitoring.</p> <p>AFMA has established committees to provide scientific and economic advice that supports the management for this fishery. These committees are responsible for analysing fishery data, including protected species interactions, to ensure effective and appropriate management measures are implemented. Furthermore, these committees provide advice and recommendations in relation to knowledge gaps and future research. A current study involves</p>

	<p>a review of marine turtle interactions that occur in this fishery. The findings will help inform future management actions, risk assessments, industry collaboration and education programs.</p> <p>Information from protected species reports and independent observer data indicates that the majority of marine turtles are released alive. Mitigation measures include the compulsory use of large circle hooks on all shallow sets, which have been demonstrated to significantly lower sea turtle catch rates, and post release mortality and the use of specially designed line cutters and de-hookers for the safe removal of hooks from turtles (and other animals). The most recent ERA indicated that the fishery does not pose a high risk to any marine turtle species. AFMA has advised that a review of marine turtle interactions in this fishery is being undertaken in collaboration with ABARES. It is intended that this review will provide information that can be used by AFMA to work with industry on options to further reduce sea turtle interactions and better quantify potential impacts on turtle populations in future, as well as target vessels and crews that need further education on sea turtle handling practices.</p> <p>All longline fishing vessels must adhere to management measures described in the Seabird TAP (DoEE 2018). Any changes to the management arrangements, including those that are implemented in response to Seabird TAP triggers, are reflected in the fishery management strategy and the management arrangements booklet. AFMA is required to provide annual reports to the Seabird TAP stakeholder forum (DoEE 2018, p. 11).</p>
2.2.5 There are measures in place to avoid impact on threatened ecological communities.	<p>Not applicable</p> <p>Risk is considered low. See item 2.2.3 above.</p>
2.2.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	<p>Partially meets</p> <p>The fishery continues to report high numbers of interactions with EPBC Act-listed species.</p> <p>While the management strategies described above provide some protection, the fishery is considered to have a medium chance of achieving the objectives to conduct the fishery in a manner that minimises the impact of fishing on endangered, threatened or protected species. Given the high numbers of TEPS interactions in this fishery, the export approval is subject to a condition that requires AFMA to regularly review the monitoring program, evaluate its effectiveness, and adopt adequate measures to mitigate impacts to protected species (see Section 4).</p> <p>The management arrangements are likely to achieve this objective in relation to threatened ecological communities.</p>
Objective 3 - The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally.	
Information requirements	
2.3.1 Information appropriate for the analysis in 2.3.2 is collated and/or collected covering the fishery's impact on the ecosystem and environment generally.	<p>Meets</p> <p>The ERA accounts for the potential impacts of fishing on five components of the marine environment – target, byproduct, bycatch/discards, protected species, and the habitats and communities. The ERA applies to potential impacts of longlining, which is the main fishing gear and methods used in the fishery. The ERA did not assess the</p>

	<p>impacts of minor line such as poles as it make up only a small component of catch and effort, which is not considered to have a detrimental impact.</p> <p>The residual risk analysis considers the benefits derived from the management arrangements. Information such as mandatory catch reporting, vessel monitoring systems, electronic monitoring, independent scientific observers, and independent research and stock assessments are useful in better understanding the risk of fishing to the marine environment.</p> <p>AFMA is involved in data collection programs within the AFZ and the broader western and central Pacific Ocean.</p>
Assessment	
<p>2.3.2 Information is collected and a risk analysis, appropriate to the scale of the fishery and its potential impacts, is conducted into the susceptibility of each of the following ecosystem components to the fishery.</p> <p>1. Impacts on ecological communities</p> <ul style="list-style-type: none"> • Benthic communities • Ecologically related, associated or dependent species • Water column communities <p>2. Impacts on food chains</p> <ul style="list-style-type: none"> • Structure • Productivity/flows <p>3. Impacts on the physical environment</p> <ul style="list-style-type: none"> • Physical habitat • Water quality 	<p>Meets</p> <p>A robust ERA has been conducted covering target species, bycatch, protected species, and the broader marine environment, including habitats and communities. The fishing methods used (longline and minor line) are not particularly selective. The available information suggests that longlining poses no significant risk to the physical habitat or water quality.</p> <p>The ERA included an assessment for impacts on the broader marine ecosystem, including habitats. The potential for the fishery to impact unacceptably and unsustainably on the physical environment generally is considered to be low. The fishery operates on the high seas, and there is a risk of introducing diseases caused by the use of bait fish. However, operators are required to comply with a range of measures (e.g. MARPOL¹ regulations) designed to minimise any discharges from vessels, particularly unused bait and any offal from the processing the catch.</p> <p>The targets species normally occur in pelagic waters of considerable depth. In Australian waters these species are usually associated with the continental shelf. Previous EPBC Act assessments for this fishery indicate an awareness of the structure of the food chain in which the fishery operates. The fishery has a direct impact due to its reliance on ecologically related species, the structure and productivity flows of the food chain; and predator – prey relationships. Knowledge has improved over time as a result of fishery dependent and independent data collection.</p>
Management responses	

¹ International Convention for the Prevention of Pollution from Ship is known as MARPOL

<p>2.3.3 Management actions are in place to ensure significant damage to ecosystems does not arise from the impacts described in 2.3.1.</p>	<p>Meets</p> <p>The ERA indicates the level of risk on the broader ecosystem is low. The management measures described in the ETB Fishery Management Plan are underpinned by legislation and regulations, which increases AFMA's capacity to mitigate impacts. The ERA analysis relies on data collected through mandatory reporting, e-monitoring, AFMA's independent on-board observer program, and the scientific research plan. A new ERA was completed in 2018, and will be incorporated into the fishery management strategy.</p> <p>There is no clear evidence to suggest this fishery causes any systematic change to species diversity or richness. AFMA employ an adaptive management approach to ensure the impacts of fishing is minimised. Given the management measures in place, the conservation values identified in the marine bioregional plan are not compromised by this fishery. It is important that the risks and uncertainties identified in the ERA, marine bioregional plan, and this assessment are regularly monitored, evaluated, and managed to ensure that fishing effort does not have a material impact on the food chain or trophic structure in the area of the fishery.</p>
<p>2.3.4 There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a predetermined level, or where action is indicated by application of the precautionary approach.</p>	<p>Meets</p> <p>The ERA provides an appropriate level of information required to determine if specific ecosystem indicators are necessary. Given the results of the ERA (i.e. low risk to the marine environment). The ERA is underpinned by the collection of fishery dependent and fishery independent information, and highlights any risks to the environment posed by this fishery. The ETB Fishery Management Plan includes measures to minimise ecosystem impacts that are identified through the risk analysis. Operators are also required to adhere to conservation and management measures developed and implemented by the WCPFC.</p>
<p>2.3.5 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Meets</p> <p>The Department is satisfied that the management arrangements provide for the identification and management of risks, and that the fishery will be conducted in a manner that minimises the impact of fishing on the ecosystem generally in the short to mid-term.</p>

SECTION 3: ASSESSMENT OF THE COMMONWEALTH EASTERN TUNA AND BILLFISH FISHERY AGAINST THE REQUIREMENTS OF THE EPBC ACT

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

Part 12 – Identifying and monitoring biodiversity and making bioregional plans

Section 176 Bioregional Plans	Comment
(5) Minister must have regard to relevant bioregional plans	<p>Meets</p> <p>The area of the fishery overlaps with the Coral Sea and the Temperate East Marine Regions. There is no bioregional plan currently in place for the Coral Sea Marine Region.</p> <p>The <i>Marine bioregional plan for the temperate east marine region 2012</i> (Marine bioregional plan) describes a number of key ecological features and 16 conservation values of regional priority.</p> <p>Overall, bycatch is considered one of the most pervasive pressures on conservation values in the region. It was assessed as a pressure <i>of concern</i> to green, loggerhead and leatherback turtles, and <i>of potential concern</i> to Hawksbill Turtle (<i>Eretmochelys imbricata</i>). It was assessed as a <i>pressure of concern</i> for the eastern grey nurse shark population, and <i>of potential concern</i> for white shark. Seabird bycatch is dominated by albatrosses and shearwaters. The fishery has in place mitigation measures that have proven effective in minimising interactions with protected species. Specific measures are in place in the fishery that mitigate the impact of these pressures, including mandatory use of bycatch reduction devices (DSEWPaC 2012).</p> <p>Bycatch is also considered <i>of potential concern</i> for a number of key ecological features (Tasman Front and eddy field, upwelling off Fraser Island, Norfolk Ridge, Tasmantid and Lord Howe seamount chains, shelf rocky reefs and canyons). There is no evidence to suggest any systematic change to species diversity or richness caused by this fishery, indicating fishing effort is not having a material impact on the food chain or trophic structure. Given the fishing methods used in the fishery and the mitigation measures in place, impact to key ecological features is considered low.</p> <p>A number of conservation values in the Temperate East Marine Region are vulnerable to the extraction of living resources by commercial and recreational fishing and illegal, unregulated and unreported fishing. Bycatch and extraction of living resources by commercial fishing is assessed as of potential concern for shelf rock reefs. The extraction of living resources has the potential to affect trophic structures and ecological functioning, and is being managed by controlling effort and catches.</p> <p>Physical disturbance to seafloor is described as a pressure <i>of concern</i> in the Temperate East Marine Region. However, the fishing methods used are unlikely to have a significant impact unless operators miscalculate the depth at which fishing occurs.</p>

	Commercial fishing effort overlaps with seven of the eight key ecological features in the region, and is considered a pressure of potential concern for these features. There is very little information to quantify the impacts to these features through the removal of targeted species. However, the amounts removed are limited by quota for five primary species, and catch limits for other key species. Effort has reduced significantly over the past decade.
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Part 13 – Species and communities

Accreditable plan, regime or policy (Division 1, Division 2, Division 3, Division 4)	Comment
s. 208A (1) (a-e) , s.222A (1) (a-e), s.245 (1) (a-e), s.265 (1) (a-e) Does the fishery have an accreditable plan of management, regime or policy?	Meets Yes, there is an accreditable management regime. The fishery will be managed under the <i>ETB Fishery Management Plan 2010</i> , and subordinate legislation made under the FM Act.
Division 1 Listed threatened species, Section 208A Minister may accredit plans or regimes	Comment
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing?	Meets Yes, there are specific measures in place to mitigate the risk to listed threatened species, including marine turtles, seabirds, cetaceans, and sharks. While the effectiveness of these measures is demonstrated, the number of interactions remains high for some species. The <i>ETB Fishery Management Plan 2010</i> was re-accredited in August 2014. AFMA advise the Department of amendments to the management regime as they occur, and through annual reports. Changes to the management arrangements include the introduction of quota management and electronic monitoring. The fishing season will now start on 1 January and end on 31 December each year. AFMA has developed a draft fishery management strategy that incorporates existing management strategies and policies. AFMA anticipate the final FMS will be publicly available by September 2019. In addition, the revised FM Regulations has a new structure. Part 7 of the FM Regulations describes the procedures and mandatory reporting requirements to minimise the impact of fishing on the marine environment, including interactions with protected species. Under Regulation 70, operators must ensure that, as far as practicable, there is no interaction with a protected species during a fishing trip. The management arrangements prohibit the take of listed threatened and conservation dependent species likely to be encountered in the fishery (see Management arrangements booklet).

	<p>The Department considers that the amendments do not significantly affect the sustainability of the fishery. Therefore, a new Part 13 declaration is not required at this time, and the existing Part 13 accreditation remains valid.</p> <p>The Department considers that the management arrangements still require that operators take all reasonable steps to prevent the killing or injuring of members of listed threatened species.</p>
(g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species?	<p>Partially meets</p> <p>Yes, operators have reported interactions with listed threatened species since the 2014 assessment for the fishery.</p> <p>The Department is informed of interactions through quarterly protected species reports and annual fishery reports. These reports indicate that the fishery continues to have frequent interactions with protected species, particularly albatrosses (including Black-browed, Shy and Wandering), marine turtles (leatherback, loggerhead, Pacific (Olive) Ridley, and Flatback), and sharks.</p> <p>Although there are large numbers of interactions with some species, the fishery has a range of management strategies and mitigation measures in place that help to minimise the impact of fishing. AFMA has implemented management arrangements to decrease interactions, including addressing high risk species through the ERA process, and no take rules for vulnerable sharks and other conservation dependent and protected species. Given the management arrangements and available information through mandatory reporting and ecological risk assessments, the Department considers the current operation of the fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>
Division 2 Migratory species, Section 222A Minister may accredit plans or regimes	Comment
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing?	<p>Meets</p> <p>Yes, there are specific measures in place to mitigate the risk to migratory species. Measures include a bycatch strategy, bycatch handling guidelines, a suite of mitigation measures for seabirds and turtles, and no take rules to mitigate impacts on vulnerable sharks.</p> <p>The management plan for the fishery was re-accredited in August 2014. AFMA advise the Department of amendments to the management regime as they occur, and through annual reports. Since the changes there have been only minor changes to the management arrangements since the most recent assessment for the fishery, the Department considers that the existing Part 13 accreditation remains valid. The Department considers that the amendments do not significantly affect the sustainability of the fishery.</p> <p>Given the management arrangements in place, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of members of listed migratory species or a population of that species.</p>
(g) And, is the fishery likely to adversely affect the conservation status of a	Partially meets

listed migratory species or a population of that species?	<p>Yes, operators reported interactions with listed migratory species since the 2014 assessment for the fishery. The Department is informed of interactions through quarterly protected species reports. These reports indicate frequent interactions with migratory sharks, marine turtles, and seabirds.</p> <p>Although the ERA for this fishery indicates no migratory species is at high risk from the effects of fishing and arrangements are in place to minimise interactions with migratory species, the Department considers the number of interactions to be high. Therefore, while the Department considers the current operation of the fishery is not likely to adversely affect the conservation status of a listed migratory species or a population of that species, it is important that AFMA continue to monitor for impacts and take appropriate management action.</p>
Division 3 Whales and other cetaceans, Section 245 Minister may accredit plans or regimes	Comment
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing?	<p>Partially meets</p> <p>No, there are no specific measures in place to mitigate the risk to cetaceans.</p> <p>The management plan for the fishery was re-accredited in August 2014. AFMA advise the Department of amendments to the management regime as they occur, and through annual reports.</p> <p>The Department agreed that the amendments did not significantly affect the sustainability of the fishery. The Department considers that the existing Part 13 accreditation remains valid. Given the legislation in force, the Department considers the management arrangements still require that operators take all reasonable steps to prevent the killing or injuring of cetaceans and that the capture of any cetaceans would be incidental to and not the purpose of the operation of the fishery.</p>
(g) And, is the fishery likely to adversely affect the conservation status of a species of cetacean or a population of that species?	<p>Meets</p> <p>There were interactions reported since the 2014 assessment for the fishery.</p> <p>The Department is informed of interactions with cetaceans through quarterly protected species reports and annual fishery reports. These reports indicate a number of interactions with short-finned pilot whale. In addition, protected species reports indicate that many dolphin and whale interactions are not identified by species. Protected species management can be improved by species-level reporting.</p> <p>Noting that no whale or other cetacean is considered high risk to the effects of fishing, and that mitigation measures will be implemented through the ERA process, the Department considers the current operation of the fishery is not likely to adversely affect the conservation status of a species of cetacean or a population of that species in the short term.</p>
Division 4 Listed marine species, Section 265 Minister may accredit plans or regimes	Comment

<p>(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing?</p>	<p>Meets</p> <p>The fishery's management regime was re-accredited under Part 13 of the EPBC Act in August 2014. AFMA advise the Department of amendments to the management regime as they occur, and through annual reports.</p> <p>The Department agreed that the amendments, identified above, are minor, and did not significantly affect the sustainability of the fishery. The Department considers that the existing Part 13 accreditation remains valid. The management arrangements include specific measures to mitigate the risk, including bycatch reduction devices (e.g. tori lines and line weighting etc.), mandatory seabird management conditions for all longline vessels, and actions articulated in vessel permit conditions and the ETBF Bycatch Strategy within the ETBF FMS. Given these, and other management arrangements, the Department considers the current operation of the fishery is not likely to adversely affect the conservation status of a listed marine species.</p>
<p>(g) And, is the fishery likely to adversely affect the conservation status of a listed marine species or a population of that species?</p>	<p>Meets</p> <p>Operators reported interactions with listed marine species since the 2014 assessment for the fishery.</p> <p>The Department is informed of interactions with listed marine species through quarterly protected species reports. These reports indicate very occasional interactions with pinnipeds (e.g. seals and sea lions) and more frequent interactions with seabirds, particularly albatrosses and shearwaters.</p> <p>Mitigation measures are described in the ETBF FMS, including mandatory requirements for longline vessels to mitigate seabird bycatch.</p> <p>Noting arrangements to decrease interactions with listed marine species and measures to address high risk species through the ERA process, the Department considers the current operation of the fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species in the short term.</p>
<p>Section 303AA Conditions relating to accreditation of plans, regimes and policies</p>	<p>Comment</p>
<p>(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.</p>	<p>Recommend accreditation under sections 208A, 222A, 245 and 265.</p> <p>The Department recommends that the management regime for the fishery be accredited under sections 208A, 222A, 245 and 265.</p>
<p>(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only:</p> <p>(a) during a particular period; or</p> <p>(b) while certain circumstances exist; or</p>	<p>The Department considers that no conditions are required for the re-accreditation of the management regime for the fishery under Part 13.</p>

<p>(c) while a certain condition is complied with.</p> <p>In such a case, the instrument of accreditation is to specify the period, circumstances or condition.</p>	
<p>(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.</p>	<p>Not applicable</p> <p>No condition has been contravened.</p>

Part 13A – International movement of wildlife specimens

Section 303BA Objects of Part 13A	
<p>(1) The objects of this Part are as follows:</p> <p>(a) to ensure that Australia complies with its obligations under CITES and the Biodiversity Convention;</p> <p>(b) to protect wildlife that may be adversely affected by trade;</p> <p>(c) to promote the conservation of biodiversity in Australia and other countries;</p> <p>(d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way;</p> <p>(e) to promote the humane treatment of wildlife;</p> <p>(f) to ensure ethical conduct during any research associated with the utilisation of wildlife; and</p> <p>(h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.</p>	<p>The management arrangements for the fishery have been assessed as consistent with the general guidance provided in the objects of Part 13A as follows:</p> <ul style="list-style-type: none"> • to comply with Australia's obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) listed species, • there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1) • the operation of the fishery is unlikely to be unsustainable and threaten biodiversity within the next three years, and • the Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) do not specify fish as a class of animal in relation to the welfare of live specimens.

Section 303CG Minister may issue permits (CITES species)	Comment
<p>(3) The Minister must not issue a permit unless the Minister is satisfied that:</p> <p>(a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to:</p> <p>(i) the survival of any taxon to which the specimen belongs; or</p>	<p>Given the fishery's management arrangements in place to monitor and control the level of harvest of CITES species and noting the minimal level of CITES species being exported from the fishery, the Department considers that the fishery will not be detrimental to the survival of any taxon to which the CITES specimen belongs in the short to medium term.</p> <p>Condition 3 on the WTO declaration for the fishery includes annual reporting requirements, while Condition 4 requires AFMA to ensure appropriate arrangements are in place to manage CITES-listed sharks (see Table 1, Section 4). These conditions will allow the Department to monitor the status of CITES specimens harvested in the fishery.</p>
<p>(ii) the recovery in nature of any taxon to which the specimen belongs; or</p>	<p>The CITES species harvested from the fishery are not considered to be overfished in Australian waters, as concluded by the non-detriment finding (DoE 2014). Management arrangements are in place to help ensure CITES species are sustainably fished. Should stocks fall below defined reference points, the fishery is conducted such that there is a high degree of probability the stock would recover to ecologically viable stock levels within nominated timeframes.</p> <p>Management arrangements in place to control harvest of CITES species include limited entry, gear restrictions, and catch limits.</p>
<p>(iii) any relevant ecosystem (for example, detriment to habitat or biodiversity); and</p>	<p>Recognising the nature of harvest and gear (longline and minor line) used in the fishery, the potential for the fishery to impact unacceptably and unsustainably on any relevant ecosystem generally is considered quite low.</p> <p>The Department is satisfied that the fishery is conducted in a manner that minimises the impact of fishing operations on the ecosystem generally.</p>
Section 303DC Minister may amend list (non CITES species)	Comment
<p>(1) The Minister may, by legislative instrument, amend the list referred to in section 303DB [list of exempt native specimens] by:</p> <p>(a) doing any of the following:</p> <p>(i) including items in the list;</p> <p>(ii) deleting items from the list;</p>	<p>The Department recommends that specimens that are or are derived from fish or invertebrates taken in the Commonwealth Eastern Tuna and Billfish Fishery, as defined in the <i>Eastern Tuna and Billfish Fishery Management Plan 2010</i> made under the <i>Fisheries Management Act 1991</i> (Cth), but not including</p> <ul style="list-style-type: none"> ○ specimens that belong to eligible listed threatened species, as defined under section 303BC of the EPBC Act, or ○ specimens that belong to taxa listed under section 303CA of the EPBC Act (Australia's CITES list).

<p>(iii) imposing a condition or restriction to which the inclusion of a specimen in the list is subject;</p> <p>(iv) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or</p> <p>(b) correcting an inaccuracy or updating the name of a species.</p>	<p>be included in the list of exempt native specimens while the fishery is subject to a declaration as an approved wildlife trade operation.</p>
<p>(1A) In deciding to amend the LENS, the Minister must rely primarily on outcomes an assessment under Part 10, Divisions 1 or 2</p>	<p>Meets</p> <p>The fishery was assessed under Part 10 of the EPBC Act in February 2011. That assessment concluded that actions approved or taken in accordance with the <i>Eastern Tuna and Billfish Fishery Management Plan 2010</i>, would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area. Consequently, the management plan was accredited under section 33 of the EPBC Act.</p> <p>AFMA has informed the Department of minor amendments to the fishery's management arrangements since that accreditation. Changes include:</p> <ul style="list-style-type: none"> • The introduction of a quota management system for five primary target species. • The introduction of e-monitoring for all longline vessels operating fulltime in the fishery. • The introduction of a fishery management strategy that will incorporate a number of existing strategies and policies (e.g. harvest strategy, bycatch and discarding work plan, and ERA). • Fishing season to start on 1 January and end on 31 December each year • From 1 October 2019, the <i>Fisheries Management Regulations 2019</i> will replace the <i>Fisheries Management Regulations 1992</i>. Regulatory amendments are mostly minor, and will: <ul style="list-style-type: none"> ○ Clarify definitions and language, and simplifying provisions relating to SFRs. ○ Clarify the process by which vessels are nominated. ○ Allow AFMA to place obligations on operators to fit AFMA-approved VMS to nominated vessels. ○ Remove offences relating to incidental capture of seabirds. However, measures such as offal management are attached to individual fishing permits as conditions, and must be complied with under the FM Act. ○ Simplify e-monitoring data collection and disclosure. ○ Restrict the use of boats on the illegal, unreported and unregulated vessel list. ○ Clarify the process to determine southern bluefin tuna weight.

(1C) The above does not limit matters that may be considered when deciding to amend LENS.	<p>Meets</p> <p>The Department considers that it has taken into account all matters relevant to making an informed decision to amend the list of exempt native specimens to include product taken in the fishery.</p>
<p>(3) Before amending the LENS, the Minister must consult:</p> <p>(a) other Minister or Ministers as appropriate; and</p> <p>(b) other Minister or Ministers of each State and self-governing Territory as appropriate; and</p> <p>(c) other persons and organisations as appropriate.</p>	<p>Meets</p> <p>The submission from AFMA was made available on the Department's website from 16 May 2019 – 17 June 2019, a total of 22 business days. Two comments were received.</p>
(5) A copy of an instrument made under section 303DC is to be made available for inspection on the internet.	<p>Yes, the instrument made under section 303DC(1)(a) to amend the list of exempt native specimens for the fishery will be registered on the Federal Register of Legislation (FRL), and a link to the instrument made available through the Department's website at http://environment.gov.au/marine/fisheries/commonwealth/eastern-tuna-billfish.</p> <p>Under subsection 56(1) of the <i>Legislation Act 2003</i> (Cth), registration on the FRL meets the requirements for gazettal.</p>
Section 303FN Approved wildlife trade operation	Comment
(2) The Minister may, by instrument published in the <i>Gazette</i> , declare that a specified wildlife trade operation is an approved wildlife trade operation for the purposes of this section.	<p>Yes, the instrument to declare the fishery as an approved wildlife trade operation under section 303FN will be registered on the FRL and a link to the instrument made available through the Department's website at http://environment.gov.au/marine/fisheries/commonwealth/eastern-tuna-billfish.</p> <p>Under subsection 56(1) of the <i>Legislation Act 2003</i> (CTH), registration on the FRL meets the requirements for gazettal.</p>
<p>(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is satisfied that:</p> <p>(a) the operation is consistent with the objects of Part 13A of the Act; and</p>	<p>Meets</p> <p>The fishery is consistent with Objects of 13A – see above assessment against the Guidelines.</p>
<p>(b) the operation will not be detrimental to:</p> <p>(i) the survival of a taxon to which the operation relates; or</p>	<p>Meets</p> <p>The fishery will not be detrimental to the survival or conservation status of a taxon to which it relates, nor will it threaten any relevant ecosystem, within the next three years, given the management measures currently in place. The management arrangements including TACC for five quota managed species, catch</p>

<p>(ii) the conservation status of a taxon to which the operation relates; and</p> <p>(ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and</p>	<p>limits for key species not managed by quota, trip limits for sharks, no take rules for protected and conservation dependent species, area and seasonal restrictions for southern bluefin tuna, and limited permits available to fish in the Coral Sea and High Seas Zones.</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>Meets</p> <p>The EPBC Regulations do not specify Crustacea or fish as a class of animal in relation to the welfare of live specimens.</p>
<p>(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.</p>	<p>Not applicable</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 regard to:</p> <p>(a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and</p>	<p>Meets</p> <p>The fishery will not have a significant impact on any relevant ecosystem within the next three years, given the management measures currently in place, which include the arrangements described above at s303FN 3(b).</p>
<p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<p>Meets</p> <p>The management arrangements that will be employed for the fishery as outlined in the assessment against the Guidelines (above), are likely to be effective.</p>
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or Territory concerned; and</p> <p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	<p>Meets</p> <p>The fishery will be managed under the <i>Eastern Tuna and Billfish Fishery Management Plan 2010</i>, and subordinate legislation made under the <i>Fisheries Management Act 1991</i> (Cth).</p> <p>The Act under which fishery is managed applies throughout Commonwealth waters. Section 6 of the FM Act allows AFMA to make management arrangements to regulate Australian flagged vessels that operate on the High Seas.</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>(a) the operation is a commercial fishery.</p>	<p>Meets</p> <p>The Eastern Tuna and Billfish Fishery is a commercial fishery.</p>
<p>(10A) In deciding whether to declare that a commercial fishery is an approved wildlife trade operation for the purposes of this section, 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>Meets</p> <p>The fishery was assessed under Part 10 of the EPBC Act in February 2011. In conducting this assessment, the Department considered that actions taken in the fishery would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area. Consequently, the ETB Fishery Management Plan was accredited under section 33 of the EPBC Act.</p> <p>AFMA has informed the Department of minor amendments to the fishery's management arrangements since that accreditation, including:</p> <ul style="list-style-type: none"> • The introduction of a quota management system for five primary target species. • The introduction of e-monitoring for all longline vessels operating fulltime in the fishery. • The introduction of a fishery management strategy that will incorporate a number of existing strategies and policies (e.g. harvest strategy, bycatch and discarding work plan, and ERA). • Fishing season to start on 1 January and end on 31 December each year • New FM Regulations will come into force on 1 October 2019. Amendments are mostly minor, and will: <ul style="list-style-type: none"> ○ Clarify definitions and language, and simplifying provisions relating to SFRs. ○ Clarify the process by which vessels are nominated. ○ Allow AFMA to place obligations on operators to fit AFMA-approved VMS to nominated vessels. ○ Remove offences relating to incidental capture of seabirds. However, measures such as offal management are attached to individual fishing permits as conditions, and must be complied with under the FM Act. ○ Simplify e-monitoring data collection and disclosure. ○ Restrict the use of boats on the illegal, unreported and unregulated vessel list. ○ Clarify the process to determine southern bluefin tuna weight.
<p>(10B) Subsection (10A) does not limit the matters that may be taken into account in deciding whether to declare that a fishery is an approved wildlife trade operation for the purposes of this section.</p>	

Section 303FR Public consultation	Comment
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <ul style="list-style-type: none"> (a) setting out the proposal to make the declaration; and (b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and (c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal. <p>(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.</p>	<p>Meets</p> <p>A public notice, which set out the proposal to declare the fishery an approved wildlife trade operation and included the application from AFMA, was released for public comment on 16 May 2019 to 17 June 2019, a total of 22 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>Meets</p> <p>Two public comments were received on the submission. The public comments stated that there are a number of issues requiring management attention, including:</p> <ul style="list-style-type: none"> • A dramatic increase in reporting of interactions with marine turtles and albatrosses since 2016, which appears to coincide with the introduction of electronic monitoring in 2015. • Up-to-date ERA for this fishery conducted in 2017 is not publicly available, and may also contain misleading information about marine turtle interaction rates, which undermines expectations of transparency. • There is currently no harvest strategy or control rules in place for Mahi Mahi. There is also a lack of up-to-date research for this species in Commonwealth waters. Mahi Mahi has no catch limits, and is currently classified as undefined. <p>The Department's assessment has considered the public comments received on the submission and addressed the issue of protected species interactions through conditions in Section 4 (see Condition 4 (CITES), Condition 5 (sharks), Condition 6 (monitoring), and Condition 7 (marine turtles).</p>
Section 303FT Additional provisions relating to declarations	Comments

(1)	This section applies to a declaration made under section 303FN, 303FO or 303FP.	A declaration for the fishery will be made under section 303FN.
(4)	<p>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</p> <p>(b) while certain circumstances exist; or</p> <p>(c) while a certain condition is complied with.</p> <p>In such a case, the instrument of declaration is to specify the period, circumstances or condition.</p>	<p>The standard conditions applied to commercial fishery wildlife trade operations include:</p> <ul style="list-style-type: none"> operation in accordance with the management regime notifying the Department of changes to the management regime, and annual reporting in accordance with the requirements of the Australian Government Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition. <p>The wildlife trade operation instrument for the fishery 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 (see Condition 3 in Section 4).
(9)	The Minister must, by instrument published in the <i>Gazette</i> , revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.	<p>Not applicable.</p> <p>No condition has been contravened.</p>
(11)	A copy of an instrument under section 303FN, or this section is to be made available for inspection on the internet.	The instrument for the fishery made under section 303FN and the conditions under section 303FT will be registered as a notifiable instrument and made available through the Department's website.

Part 16 – Precautionary principle and other considerations in making decisions

Section 391 Minister must consider precautionary principle in making decisions		Comment
(1)	Minister must take account of the precautionary principle in making a decision, to the extent that the decision is consistent with other provisions under this Act.	<p>Meets</p> <p>Objective (b) of the Fishery Management Plan requires that AFMA:</p> <p><i>ensure that the exploitation of the resources of the fishery and the carrying out of any related activities are conducted in a manner consistent with the principles of ecologically sustainable development and the exercise of the precautionary principle, and, in particular, the need to</i></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.

have regard to the impact of fishing activities on bycatch species and the long-term sustainability of the marine environment (ETBF Management Plan, p. vi).

Given the management arrangements, including independent monitoring of stocks against prescribed performance measures, the mitigation measures already in place, and the Part 13 conditions to mitigate risks to seabirds and migratory sharks, the Department considers that suitable precautionary measures are in place to prevent serious or irreversible environmental damage being caused by this fishery.

SECTION 4: COMMONWEALTH EASTERN TUNA AND BILLFISH FISHERY – SUMMARY OF ISSUES REQUIRING CONDITIONS, AUGUST 2019

Issue	Condition
<p><u>General Management</u></p> <p>Export decisions relate to the management arrangements in force at the time of any decisions made under the EPBC Act. To ensure that the decisions remain valid and export approval continues uninterrupted, the Department of the Environment and Energy (the Department) needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision(s). This includes operational and legislated amendments that may affect the sustainability of the target species or negatively impact on byproduct, bycatch, EPBC Act protected species or the ecosystem.</p> <p>The Eastern Tuna and Billfish Fishery (the fishery) is managed by the Australian Fisheries Management Authority (AFMA) in accordance with the <i>Eastern Tuna and Billfish Fishery Management Plan 2010</i>, made under federal legislation (see Condition 1).</p> <p>Since the 2014 assessment for the fishery, AFMA has made a number of amendments to the management arrangements. AFMA has informed the Department of management changes as required by Condition 2.</p> <p>The changes include the introduction of electronic monitoring, and changes to the fishing season start and end dates. In addition, the <i>Fisheries Management Regulations 1994</i> will be repealed in October 2019 replaced by the <i>Fisheries Management Regulations 2019</i>. Changes include a definition for vessel monitoring systems (VMS), and clarify operator's obligations to ensure an approved VMS is fitted to the nominated vessel. The changes also clarify definitions and language in relation to catch limits for species managed under OCS agreements, and remove measures that prevent AFMA from allowing for the processing of swordfish and striped marlin whilst at sea. The amendments also allow AFMA to enforce electronic reporting requirements for fish receivers, and provides for a more streamlined process for AFMA to dispose of marine debris.</p>	<p>Condition 1:</p> <p>Operation of the Eastern Tuna and Billfish Fishery will be carried out in accordance with <i>Eastern Tuna and Billfish Fishery Management Plan 2010</i> (as amended) in force under the <i>Fisheries Management Act 1991</i> (Cth).</p> <p>Condition 2:</p> <p>The Australian Fisheries Management Authority to inform the Department of the Environment and Energy of any intended material changes to the Eastern Tuna and Billfish Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth) decisions are made.</p>
<p><u>Annual Reporting</u></p> <p>It is important that AFMA produce and present reports to the Department annually in order for the performance of the fishery and progress in implementing the conditions described in this report and other managerial commitments to be</p>	<p>Condition 3:</p>

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<p>monitored and assessed throughout the life of the export approval (see Condition 3). Annual reports should follow Appendix B to the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' and include a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with EPBC Act protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing the Department's conditions described in the previous assessment for the fishery. Electronic copies of the guidelines are available from the Department's website at http://www.environment.gov.au/resource/guidelines-ecologically-sustainable-management-fisheries.</p>	<p>The Australian Fisheries Management Authority 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>
<p><u>Convention on International Trade of Endangered Species of Fauna and Flora (CITES) and Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) listed species</u></p> <p>Harvesting in this fishery includes the incidental take of CITES-listed hammerhead sharks. The fishery also allows the take of porbeagle sharks only if the animal is brought to the boat dead.</p> <p>To ensure that EPBC Act requirements continue to be met in relation to CITES listed species, the Department considers it important that AFMA continue to advise of any CITES species being, likely to be, harvested in the fishery and advise on the level of harvest. All CITES-listed specimens will still require a CITES export permit to allow export of the specimens.</p>	<p>Condition 4:</p> <p>The Australian Fisheries Management Authority to consult with Department of the Environment and Energy prior to a change to the management arrangements being implemented for a CITES listed species.</p>

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<p><u>Sustainable management of sharks</u></p> <p>The fishery continues to report high numbers of interactions with shark species of national and international conservation interest. In 2012, Australia articulated its priorities for actions to improve shark management through Shark-Plan 2, the <i>National Plan of Action for Shark Conservation and Management 2012</i> (CoA 2012). The Department's position, that shark species caught in this fishery continue to be accurately recorded to enable the extent of impact to be determined, is unchanged.</p> <p>A number of shark species encountered by this fishery are also caught in other Australian-managed fisheries. This overlap in fishing effort increases the cumulative impacts of fishing related mortality for sharks. Management measures must account for these risks to ensure the sustainability of susceptible shark species.</p> <p>Global shark populations are considered more vulnerable to the effects of fishing than bony fish, due to their slow growth, late maturation and lower reproductive output. Many of the shark species caught, including incidental catch, are highly migratory and occur throughout the western and central Pacific and elsewhere.</p> <p>The Department has previously articulated the importance of Australian fisheries assisting international efforts to manage globally threatened shark stocks. It is important that AFMA continue to work, through its role in the Australian delegation, with the Western and Central Pacific Fisheries Commission and other countries within the region with regard to ensuring shark populations are sustainably fished.</p> <p>Improved information and management of these species will contribute to mitigating the impact on Pacific populations of shark species that are potentially at risk. The information collected should identify the species impacted, and contribute to developing, implementing, and/or maintaining appropriate management measures to mitigate impacts on shark species identified as at high risk from the fishery through ecological risk assessments, protected species listing and/or other processes.</p> <p>The Department acknowledge AFMA's efforts to implement e-monitoring and other management measures (including trip limits, a ban on finning, targeting and use of wire trace, as well as provision of line cutters and dehookers to help release sharks) to ensure sharks are effectively managed. Nonetheless, the Department considers that export approval for this fishery be subject to Condition 5 to ensure the ongoing sustainable management of sharks</p>	<p>Condition 5:</p> <p>The Australian Fisheries Management Authority to continue efforts to determine the extent of the impact of fishing in the Eastern Tuna and Billfish Fishery on shark species.</p>

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<p>encountered in this fishery. As with recommendations described in the previous EPBC Act assessment, this condition is likely to provide improved mechanisms for ensuring the sustainability of shark catch.</p>	
<p><u>Fishery monitoring</u></p> <p>This fishery has historically reported high numbers of interactions with species of conservation interest, particularly marine turtles and seabirds. Previous EPBC Act assessments for this fishery identified the need for improvements to the way in which the effects of fishing are monitored.</p> <p>Since the 2014 assessment for this fishery, AFMA has changed the way in which fishing operations are monitored. Electronic monitoring (EM) has been implemented across all fulltime longline vessels in the fishery since mid-2015, with research demonstrating a substantial improvement in bycatch and protected species logbook reporting as a result of this program. Public submissions also acknowledged the positive collaborations between AFMA and non-government organisations that have helped to improve monitoring for protected species. However, the submissions also raised concerns regarding the quality of fishery data, including accuracy and transparency in relation to reporting protected species interactions.</p> <p>While management arrangements (e.g. requirements for line weighting, tori lines, large circle hooks, line cutters and dehookers) have helped to reduce seabird and marine turtle mortality, the ongoing monitoring of interactions remains relevant to ensure that appropriate management measures can be implemented in a timely manner, for example if trigger limits are exceeded for seabirds or ERA indicate high risks to sea turtles or other protected species. The continued validation of logbook data against independent records (for example, electronic monitoring or human observers) is also important to ensure reporting requirements are met and improves confidence that the effects of fishing on protected species are predicted accurately.</p> <p>Data collection and analysis must be representative of fishing effort and identifies the nature and level of protected species interactions in a manner that allows the effects of fishing to be quantified. It is also important that AFMA monitor the impact of technological advancements in the fishery on the ecological sustainability of target, byproduct and bycatch species, and where required, incorporate additional or improved mitigation measures into management arrangements.</p>	<p>Condition 6:</p> <p>The Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a. ensure that the overall monitoring program for the Eastern Tuna and Billfish Fishery continues to provide sufficient data collection and analysis to meet the requirements of relevant recovery and threat abatement plans under the EPBC Act, and monitoring requirements of the Western and Central Pacific Fisheries Commission, and to implement appropriate management measures as required. b. provide a summary of the monitoring program to the Department of the Environment and Energy as part of annual reporting as required by Condition 3 above.

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<p>The previous assessment for this fishery recommended that AFMA take into account certain measures if e-monitoring was to be implemented in the fishery. These recommendations remain relevant due to the high numbers of protected species interactions. Therefore, it is appropriate that export approval is subject to a condition that AFMA continue to monitor and report protected species interactions, using fishery-dependent and independent sources, with the aim to minimise such interactions.</p>	
<p><u>Marine turtles</u></p> <p>Most species of marine turtle are considered vulnerable to local and even global extinction due to declining numbers. Reduction in mortality is important for the long-term viability of these species. This fishery has historically reported high numbers of interactions with species of conservation interest, including marine turtles.</p> <p>AFMA's protected species reports indicate the majority of captured turtles are released alive. Data taken from these reports since the Department's 2014 assessment also indicate that green and leatherback turtles comprise the majority of interactions in this fishery. Reporting from the fishery indicates that approximately 80% of marine turtles (all species combined) are released alive. Although the numbers vary for each species. The proportion released alive has been reported to be lower for species that have much fewer interactions.</p> <p>The Department recognises AFMA's work to date on reducing the mortality of marine turtles in the fishery through the implementation and use of large circle hooks, line cutters and dehookers. The Department considers that ongoing monitoring of interactions with marine turtles in the fishery is important. It is also important that where improvements to management practices are identified that may further reduce marine turtle mortality that these are considered for future implementation in the fishery.</p>	<p>Condition 7:</p> <p>The Australian Fisheries Management Authority to continue efforts to determine the extent of the impact of fishing in the Eastern Tuna and Billfish Fishery on marine turtle species.</p>

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