



Australian Government

Department of the Environment and Energy

Assessment of the Commonwealth Western Tuna and Billfish Fishery

November 2019

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Disclaimer

This document is an assessment carried out by the Department of the Environment and Energy of a commercial fishery against the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*. 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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CONTENTS

Executive summary of the assessment of the Commonwealth Western Tuna and Billfish Fishery.....	2
Section 1: Assessment summary of the Commonwealth Western Tuna and Billfish Fishery against the guidelines for the ecologically sustainable management of fisheries (2nd edition), consistent with the EPBC Act.....	4
Section 2: Detailed analysis of the Commonwealth Western Tuna and Billfish Fishery against the guidelines for the ecologically sustainable management of fisheries (2nd edition)	8
Section 3: Assessment of the Commonwealth Western Tuna and Billfish Fishery against the requirements of the EPBC Act	25
Part 12 – Identifying and monitoring biodiversity and making bioregional plans	25
Part 13 – Species and communities	26
Part 13A – International movement of wildlife specimens	30
Part 16 – Precautionary principle and other considerations in making decisions	36
Section 4: Commonwealth Western Tuna and Billfish Fishery – Summary of issues requiring conditions, November 2019	38
References	43

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

In August 2019, the Australian Fisheries Management Authority (AFMA) submitted an application for the Western Tuna and Billfish Fishery (the fishery) to the Department of the Environment and Energy (the Department) for assessment as an approved wildlife trade operation (WTO) 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 12 August 2019 to 16 September 2019. The Department received no comments.

Management arrangements

The fishery operates in Commonwealth waters from the Cape York Peninsula in Queensland to the South Australian/Victorian border via the Northern Territory and Western Australia. Fishing operations may also extend beyond the limit of the Australian Fishing Zone (AFZ).

The Indian Ocean Tuna Commission (IOTC) has overall responsibility for managing highly migratory species that occur across the Indian Ocean. Domestically, the fishery is managed by AFMA in accordance with the *Western Tuna and Billfish Fishery Management Plan 2005* made under the *Fisheries Management Act 1991* (Cth). Fishing is also regulated by the *Fisheries Management Regulations 2019* (Cth) and the *Fisheries Management (International Agreements) Regulations 2009* (Cth). AFMA consider outcomes from IOTC stock assessments and other information when making management decisions.

Harvesting is managed through a range of input (effort) and output (catch) controls, including mandatory reporting, vessel monitoring systems, and strategies to manage bycatch and protected species. Statutory fishing rights (SFRs) place restrictions on catches and the gear that can be deployed. Individual transferable quota applies to the four primary target species. Catch or trip limits linked to the fishery harvest strategy apply to many species not managed by quota.

Target stocks

The fishery uses longline, purse seine, and minor line (e.g. pole and line or trolling) to target a number of highly migratory finfish species. Quota management is in place for Bigeye Tuna, Yellowfin Tuna, Broadbill Swordfish, and Striped Marlin. Key byproduct species include Skipjack Tuna, Albacore Tuna, Longtail Tuna, Escolar, Rudderfish, and Ray's Bream.

The incidental catch of the conservation dependent Southern Bluefin Tuna is subject to management measures and restrictions in place under the *Southern Bluefin Tuna Management Plan 1995*. The harvesting for some species is subject to conditions, or no take restrictions.

The *Fishery Status Reports 2018* determined the yellowfin tuna stock biomass as 'sustainable', but fishing pressure as 'subject to overfishing', and striped marlin as 'uncertain' (biomass), and 'subject to overfishing' (fishing pressure). Bigeye tuna and broadbill swordfish stocks are 'sustainable'. Southern bluefin tuna is 'overfished' (biomass) and 'not subject to overfishing' (fishing pressure).

The *Status of Key Australian Fish Stocks Report 2018* classified albacore and bigeye tuna stocks in the Indian Ocean as 'sustainable', while the yellowfin tuna stock is 'depleting'. Southern bluefin tuna biomass is 'recovering'.

Protected species and ecosystems

The fishery interacts with a number of species listed under the EPBC Act, including marine turtles, seabirds, and sharks. A number of measures are in place to manage bycatch and protected species interactions. No take rules apply to a number of species, including Grey Nurse, Gummy, School, Silky, and White sharks.

The assessment considered possible impacts of fishing on shark species listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The Department considers that as appropriate management arrangements are in place to monitor and control the level of harvest of CITES species, fishing operations are unlikely to be detrimental to their survival.

The fishing methods used in this fishery are not considered to have a significant impact on the marine ecosystem. Ecosystem impacts are mostly concerned with protected species interactions and bycatch. 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.

Research and monitoring

AFMA's five year strategic research plan 2017–2022 provides the framework for reviewing fishing operations. Research in this fishery is guided by the five year strategic research plan for Australian tuna and billfish fisheries. AFMA facilitates research and studies that are relevant to ensure the fishery is managed sustainably.

Conclusion

The fishery meets most of the Guidelines (Section 2) and the majority of the requirements of the EPBC Act (Section 3). 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. These include consultation with the Department prior to changing the management arrangements for CITES-listed species taken in this fishery; continue efforts to determine the extent of the impact of fishing in the fishery on shark species; and continue efforts to gain a better understanding of the status for stocks currently classified as overfished or uncertain.

On this basis, the Department considers that the declaration of the harvest operations for this fishery as an approved WTO for three years, until 11 November 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 WTO declaration for the fishery.

SECTION 1: ASSESSMENT SUMMARY OF THE COMMONWEALTH WESTERN 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 management regime for the Western Tuna and Billfish Fishery (the fishery) includes measures to ensure that fishing is conducted in an ecologically sustainable manner.</p> <p>The Australian Fisheries Management Authority (AFMA) manage the domestic component of the fishery in accordance with the <i>Western Tuna and Billfish Fishery Management Plan 2005</i> made under the <i>Fisheries Management Act 1991</i> (Cth). Fishing is regulated by the Commonwealth <i>Fisheries Management Regulations 2019</i> (FM Regulations 2019). Fishing operations on the high seas is also regulated by the <i>Fisheries Management (International Agreements) Regulations 2009</i> (Cth).</p> <p>The Indian Ocean Tuna Commission (IOTC) has overall management responsibility for highly migratory species, including tuna and tuna-like species, that occur in the Indian Ocean. AFMA continually review fishing practices, and develop and implement management arrangements that support sustainable fishing operations, including decisions made by the IOTC.</p>
Principle 1 (target stocks)	2 of 11	9 of 11		<p>The IOTC oversee stock assessments for the four primary target species taken in this fishery as well as other key species.</p> <p>Bigeye tuna and broadbill swordfish stocks stock assessments carried out in 2017 and 2016, respectively, determined these species stocks as sustainably fished. Yellowfin tuna and striped marlin stock assessments carried out in 2018 determined both stocks as overfished and subject to overfishing across the region. In cases where stocks are overfished, or at risk of overfishing, the IOTC has developed measures to recover those stocks. AFMA adopts conservation measures developed through the IOTC.</p> <p>Although there are stock management challenges, the Department considers that the management regime for this fishery aims to ensure that fishing is conducted in a manner that reduces the risk of overfishing and for overfished species, that measures are in place or can be readily implemented to recover stocks.</p>
Principle 2 (bycatch and TEPS)	9 of 12 N/a to 2 of 12	1 of 12		<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. AFMA has developed measures to address these risks and uncertainties. The collection of accurate and up-to-date information will inform the development of improved strategies to minimise impacts. Measures such as electronic logs will also assist in managing the</p>

				incidental capture of shark species listed on Appendix II of CITES. The introduction of electronic monitoring (i.e. underwater cameras), in particular, has improved monitoring and recording for protected species and bycatch.
Principle 2 (ecosystem impacts)	4 of 5	1 of 5		Based on the available information, and the management arrangements in place in this fishery, including the international standards imposed by the IOTC, the Department considers that 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 met			The fishery overlaps with parts of the North-west and the South-west Marine Bioregions. The Marine Bioregional Plans for these areas identify a number of pressures <i>of concern</i> or <i>of potential concern</i> to key ecological features and protected species. Current arrangements are considered sufficient to manage relevant pressures.
Part 13	All but 3 met	3 partially met		The fishery interacts with a number of EPBC Act listed species based on available logbook and observer records. AFMA has developed and implemented measures and strategies that aim to minimise the impacts to these species.
Part 13A	All met			The fishery is consistent with the Objects of Part 13A. A declaration as an approved wildlife trade operation is recommended for three years, until 11 November 2022, subject to conditions detailed in Section 4 of this report.
Part 16	All met			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 Western Tuna and Billfish Fishery:

Information on previous assessments are available on the Department's website – <http://environment.gov.au/marine/fisheries/commonwealth/western-tuna-billfish>.

- **1st assessment finalised November 2004** – Exempt from export approvals under the EPBC Act. List of exempt native specimens (LENS) amended until 01 December 2009. In April 2006, LENS amended to include new management plan. Export approval subject to 10 recommendations. Fishery management plan accredited under Part 13 of the EPBC Act in December 2005, and amended in November 2006. *Western Tuna and Billfish Fishery Management Plan 2005* accredited pursuant to section 33 of the EPBC Act in April 2006. Fishery management plan, as amended by the *Western Tuna and Billfish Fishery Management Plan Amendment 2006 (No. 1)* accreditation granted pursuant to section 33 of the EPBC Act in May 2007. Fishery management plan accredited under Part 13 of the EPBC Act for interactions with protected species on 19 December 2005, and 14 November 2006.
- **2nd assessment finalised November 2009** – Exempt from export approvals under the EPBC Act. LENS amended until 01 December 2014. Export approval subject to eight recommendations. Fishery management plan accredited under Part 13 of the EPBC Act on 27 November 2009, and on 2 April 2010.
- **3rd assessment finalised November 2014** – Declared an approved wildlife trade operation (WTO) until 23 November 2017. LENS amended to include specimens from the fishery until 28 November 2019. Export approval subject to five recommendations. Fishery management plan accredited under Part 13 of the EPBC Act on 21 November 2014.

Fishery reporting:

- Annual reports for all AFMA fisheries – <https://www.afma.gov.au/about/corporate-publications>.

Key links:

Fishery information

- Western Tuna and Billfish Fishery webpage – <https://www.afma.gov.au/fisheries/western-tuna-and-billfish-fishery>.
- Tropical Tuna Management Advisory Committee – <https://www.afma.gov.au/fisheries/committees/tropical-tuna-management-advisory-committee-tropical-tuna-mac>.
- Tropical Tuna Resource Assessment Group – <https://www.afma.gov.au/fisheries/committees/tropical-tuna-resource-assessment-group>.
- E-monitoring (Western Tuna and Billfish Fishery) – <https://www.legislation.gov.au/Series/F2015L00733>.
- Western Tuna and Billfish Fishery Fishing Season Determination 2012 – <https://www.legislation.gov.au/Series/F2012L00087>.
- Fisheries Management (Logbooks for Fisheries) Determination 2018 (Cth) – <https://www.legislation.gov.au/Details/F2018L01310>.
- Fisheries Management (Fish Receiver Permits) Declaration 2018 (Cth) – <https://www.legislation.gov.au/Details/F2018L01310>.
- Science and research program for AFMA fisheries – <https://www.afma.gov.au/research>.
- IOTC Scientific Committee – <https://iotc.org/science/scientific-committee>.

Management plan

- *Western Tuna and Billfish Fishery Management Plan 2005*, as amended by the – <https://www.legislation.gov.au/Series/F2005L03187>.
- Management arrangements booklets for AFMA fisheries – <https://www.afma.gov.au/fisheries-services/fisheries-management-plans>.

Enforcing legislation

- *Fisheries Management Act 1991* (Cth) – <https://www.legislation.gov.au/Series/C2017C00363>.
- *Fisheries Management Regulations 2019* (Cth) – <https://www.legislation.gov.au/Series/F2019L00383>.
- *Fisheries Management (International Agreements) Regulations 2009* (Cth) – <https://www.legislation.gov.au/Series/F2017C00604>.

Harvest strategy

- Western Tuna and Billfish Fishery total allowable commercial catch determination 2017 – <https://www.legislation.gov.au/Series/F2017L01529>.
- Commonwealth fisheries harvest strategy policy and guidelines – 2nd edition – http://www.agriculture.gov.au/fisheries/domestic/harvest_strategy_policy .
- Review of the harvest strategy policy and guidelines – http://www.agriculture.gov.au/fisheries/domestic/harvest_strategy_policy/review.

Risk management

Guide to AFMA's ecological risk management framework – https://www.afma.gov.au/sites/default/files/uploads/2017/08/Final-ERM-Guide_June-2017.pdf.

Policy for AFMA's ecological risk management framework – <https://www.afma.gov.au/sites/default/files/uploads/2017/09/Attachment-A-ERM-FMP.pdf>.

AFMA's ecological risk assessment reports – <https://www.afma.gov.au/sustainability-environment/ecological-risk-management-strategies>.

Protected species

- Seabirds – <https://www.afma.gov.au/environment-and-research/protected-species-management/protected-species/seabirds>
- Commonwealth fisheries bycatch policy and guidelines – 2nd edition – http://www.agriculture.gov.au/fisheries/domestic/harvest_strategy_policy .

Stock assessments

- Status for species of tuna and tuna-like species under the IOTC mandate, Indian Ocean Tuna Commission – <https://iotc.org/science/status-summary-species-tuna-and-tuna-species-under-iotc-mandate-well-other-species-impacted-iotc>.
- *Fishery Status Reports 2019*, Australian Bureau of Agricultural and Resource Economics and Sciences – <http://www.agriculture.gov.au/abares>.
- *Status of Key Australian Fish Stocks Reports 2018*, Fisheries Research and Development Corporation – <https://www.fish.gov.au/>.

SECTION 2: DETAILED ANALYSIS OF THE COMMONWEALTH WESTERN 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>AFMA publish the management arrangements for this fishery, including the <i>Western Tuna and Billfish Fishery Management Plan 2005</i> (Fishery Management Plan). All Commonwealth legislation is published on the Federal Register of Legislation (FRL), including the <i>Fisheries Management Act 1991</i> (FM Act), the <i>Commonwealth Fisheries Management Regulations 2019</i> (FM Regulations), the <i>Fisheries Management (International Agreements) Regulations 2009</i> (Cth), and the <i>Fisheries Administration Act 1991</i> (FA Act).</p> <p>The Commonwealth has entered into Offshore Constitutional Settlement (OCS) agreements with each state and the Northern Territory to manage cross-jurisdictional species stocks. OCS arrangements are gazetted and published on the FRL</p> <p>The IOTC is the Regional Fishery Management Organisation (RFMO) with overall responsibility for managing highly migratory tuna and tuna-like species stocks that occur in the Indian Ocean. The management arrangements imposed by AFMA are also subject to decisions made by the IOTC. IOTC publish management decisions, stock assessments, and other documentation on its website. See Notes (Section 1) for links to further information.</p> <p>The Commission for the Conservation of Southern Bluefin Tuna (CCSBT) is the RFMO responsible for managing the global southern bluefin tuna stock. While this species may be taken as byproduct in this fishery, harvesting is controlled by the measures in place by the CCSBT. See Notes (Section 1) for links to further information.</p> <p>Published meeting minutes for the Tropical Tuna Management Advisory Committee (TTMAC) and the Tropical Tuna Resource Assessment Group (TTRAG), and the management arrangements booklet for this fishery are available on AFMA's website.</p> <p>See Notes (Section 1) for links to publicly available documents, including legislation, regulations, fishery management plan, annual reports, policy documents, and international treaty information.</p>
Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public.	<p>Meets</p> <p>Management arrangements are developed through a consultative process mandated by the FM Act. Under the FM Act, comment on draft fishery management plans are open to all interested and affected parties, including the public. AFMA advertise opportunities to comment on management plans via its website. The draft Fishery Management Plan for this fishery released for public comment in October 2002.</p>

	<p>AFMA considered all comments and incorporated them into the final management plan, which came into effect in October 2005.</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.</p> <p>The Department of Agriculture leads Australia's representation on the IOTC. AFMA provides input to the IOTC Scientific Committee regarding the development of complimentary management arrangements for key species across the region.</p>
Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process.	<p>Meets</p> <p>A range of expertise and community interests are represented in the management committees. The FA Act describes AFMA's responsibilities and specific functions for managing Commonwealth fisheries. The FA Act also allows AFMA to establish committees to provide scientific and economic advice that support the management of commercial fisheries.</p> <p>Interested and affected parties can engage with AFMA through the TTMAC. Membership of the TTMAC includes representatives from industry, government agencies, fisheries scientists, and fishery economists.</p> <p>The IOTC Scientific Committee assesses and analyses the stock status and population trends for all migratory species in the Indian Ocean. The IOTC Scientific Committee also coordinates research and studies, then reports any findings, views, and recommendations to the Commission, and considers any other matters as required.</p>
Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured.	<p>Meets</p> <p>Strategic objectives, aims, reference points, and decision rules described, with varying levels of detail, in the FM Act, the Fishery Management Plan, management arrangements booklet, and fishery harvest strategy. AFMA's annual reports include a statement of the fishery's performance.</p> <p>Minimum standards for developing harvest strategies for Commonwealth-managed fisheries detailed in the <i>Commonwealth Fisheries Harvest Strategy Policy</i> (DAWR 2018d) and the <i>Guidelines for the Implementation of the Commonwealth Fisheries Harvest Strategy Policy</i> (DAWR 2018b). Although the harvest strategy policy is not prescribed for fisheries managed under international agreements it does provide AFMA with a framework for developing and implementing harvest control rules, and guides the development of harvest strategies for Commonwealth fisheries. For example, the Commonwealth harvest strategy guides the setting of the total allowable commercial catch (TACC) for this fishery.</p> <p>All aspects of the management arrangements developed by AFMA must consider measures adopted by the IOTC.</p>

	See Notes (Section 1) for links to key documents.
Be capable of controlling the level of harvest in the fishery using input and/or output controls.	<p>Meets</p> <p>The fishery is managed through a complex arrangement of input and output controls, including:</p> <p>Statutory fishing rights (SFRs) are mandatory. All concession holders must hold a boat SFR nominated to an Australian registered vessel and at least one quota (catch) SFR to operate in the fishery. Vessel SFRs restrict the amount and type of gear that each vessel can carry and deploy. Operators must hold relevant gear and quota SFRs to land southern bluefin tuna in this fishery.</p> <p>Fishing permits contain specific conditions, including reporting obligations. High seas permits are not transferable.</p> <p>Fishing gear and methods is predominantly longline, although minor lines such as pole and line, trolling, or handlines are also used. There are no active permits for purse seine vessels. The collection of baitfish is restricted to lampara nets, lift nets, or small-scale purse seine nets.</p> <p>Quota management system (QMS) is in place for the four primary target species. All concession holders allocated individual transferable quota (ITQ).</p> <p>Catch and trip limits apply to a number of non-quota species, including byproduct species managed under OCS arrangements and some sharks. There are no catch limits for baitfish.</p> <p>Minimum size limits apply to school shark (<i>Galeorhinus galeus</i>) and gummy shark (<i>Mustelus antarcticus</i>).</p> <p>Catch records and reporting is mandatory for all catches (target and byproduct) and discards via paper logbooks or electronic format. Operators and fish receivers must record fishing data in catch disposal records (CDRs). All fishery data reported to AFMA.</p> <p>Monitoring includes mandatory electronic monitoring (e-monitoring) for vessels operating full time in any fishing season.</p> <p>Harvest controls described in the harvest strategy for tuna fisheries. Bycatch limits and no take restrictions apply to many species</p> <p>Prohibited areas include state and federal marine reserves without an authorisation.</p> <p>Compliance measure include mandatory vessel monitoring system (VMS) for all vessels operating in this fishery, and approved for use by AFMA. Fishing records can be verified via electronic monitoring (e-monitoring) and CDRs. Independent observers are also randomly used on a minimum number of vessels per year. Observer coverage is often determined through the analysis of intelligence data and identification of specific risks.</p> <p>Research and monitoring processes carried out under AFMA's research policy and in consultation with the IOTC, and domestic stakeholders from industry and research institutions.</p>

<p>Contain the means of enforcing critical aspects of the management arrangements.</p>	<p>Meets</p> <p>AFMA use a risk based compliance strategy. High risks identified in the fishery include the potential for non-compliance with VMS and e-monitoring systems, and quota evasion. Measures are in place to identify and enforce these risks including mandatory reporting requirements, random vessel inspections (in-port or at-sea), regular compliance officer engagement with fishers and processors and inspections of fish receivers, on-board observers, specific conditions attached to permits, mandatory pre-trip reports, and financial penalties.</p> <p>Guidelines and procedures developed to help regulate the effects of fishing across the Indian Ocean. The IOTC has adopted monitoring, control and surveillance (MCS) tools. Processes are in place to review and assess compliance by Member States and Cooperating non-Contracting Parties. The IOTC introduced a regional observer scheme with the objective “<i>to collect verified catch data and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area.</i>” Resolution 11/04 sets out the minimum recording requirements and timelines for implementation and reporting by Member States and Cooperating non-Contracting Parties.</p> <p>See Notes (Section 1) for links to the IOTC website for further information.</p>
<p>Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria.</p>	<p>Meets</p> <p>Performance review timeframes prescribed for key aspects of the management arrangements. Quota and TACC reviewed annually. The Fishery Management Plan reviewed every five years. The guide to AFMA’s ecological risk management (ERM) framework describes the process for reviewing risks (AFMA 2017a).</p> <p>The harvest strategy for tuna fisheries is currently under review to ensure it aligns with the harvest strategy for Commonwealth fisheries.</p> <p>The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) review the fishery’s ecological and economic performance. This information, along with assessments for key species stocks, reported in annual <i>Fishery Status Reports</i> (ABARES 2018).</p> <p>The Fisheries Research and Development Corporation (FRDC) undertake independent assessments for a number of species stocks taken in this fishery, and publish this information in the <i>Status of key Australian fish stocks (SAFS) reports</i> (Stewardson et al. 2018).</p>
<p>Be capable of assessing, monitoring and avoiding, remedying or mitigating any adverse impacts on the wider marine ecosystem in which the target species lives and the fishery operates.</p>	<p>Meets</p> <p>Management arrangements have the capacity to manage the impacts of fishing on the wider marine environment, including legislative requirements to undertake risk assessments. Independent observers randomly assigned to vessels for a minimum of 10 per cent of fishing trips.</p> <p>AFMA has given an undertaking to review monitoring data and make improvements as required. Strategies include reviewing the placement of camera’s (e.g. location and direction) to further remove uncertainties. Human observers or bycatch officers will continue to be placed on vessels.</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, including the following:</p> <ul style="list-style-type: none"> • Threat abatement plan for the impacts of marine debris on the vertebrate wildlife of Australia's coasts and oceans (DoEE 2018). • Injury and fatality to vertebrate marine life caused by ingestion of, or entanglement in, harmful marine debris (TSSC 2001). • Threat abatement plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations (CoA 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.</p>	
<p>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.</p>	
<p>Information requirements</p>	
<p>1.1.1 There is a reliable information collection system in place appropriate to the scale of the fishery. The level of data collection should be based upon an appropriate mix of fishery independent and dependent research and monitoring.</p>	<p>Partially meets</p> <p>Mandatory reporting is in place for all target and byproduct species. Fishery information is collected and shared between AFMA and the IOTC. AFMA provides fishery data to the IOTC in a timely manner. However, the IOTC reports that the striped marlin assessment was based on poor data with only 40 per cent of contracting parties (CPCs) providing information¹. This lack of accurate data increases the uncertainty in recovering this species stock. There is a need for ongoing collaboration to ensure up-to-date and accurate information that contributes to the stock status is provided to the IOTC.</p> <p>The fishery has a reliable information collection system in place for the primary target species. These species are Yellowfin Tuna (<i>Thunnus albacares</i>), Bigeye Tuna (<i>T. obesus</i>), Striped Marlin (<i>Tetrapturus audax</i>) and Broadbill Swordfish (<i>Xiphias gladius</i>).</p> <p>Data is also collected on the key secondary species such as Skipjack Tuna (<i>Katsuwonus pelamis</i>), Albacore Tuna (<i>Thunnus alalunga</i>), and Longtail Tuna (<i>Thunnus tonggol</i>). While Southern Bluefin Tuna (<i>Thunnus maccoyii</i>) may be taken as byproduct, operators must record catches for this species in accordance with the <i>Southern Bluefin Tuna Management Plan 1995</i>.</p> <p>Data is species-specific where possible. Operators report catches (target and byproduct), bycatch (discards), and protected species interactions in daily catch logs and catch disposal records (CDRs). Reports also include locations fished, gear used, fishing methods (e.g. longline), and effort (number of</p>

¹ Indian Ocean Tuna Commission 2019 'Report for the 23rd session of the Indian Ocean Tuna Commission', IOTC-2019-S23-R[E], Indian Ocean Tuna Commission, 17–21 June 2019, Hyderabad, India, Available at <https://www.iotc.org/meetings/23rd-session-indian-ocean-tuna-commission>.

	<p>hooks). This information is reported to AFMA for ongoing monitoring and analysis. Monthly and annual catch reports are published on AFMA's website.</p> <p>Catch data is verified against fish receiver records. E-monitoring is mandatory. AFMA randomly assigns on-board observers to monitor fishing activities and to record information such as protected species interactions and bycatch (discards). Additional information can be collected through VMS data, independent stock assessments, and research studies and surveys. This information can also be used to verify fishing activities.</p>
Assessment	
<p>1.1.2 There is a robust assessment of the dynamics and status of the species/fishery and periodic review of the process and the data collected. Assessment should include a process to identify any reduction in biological diversity and /or reproductive capacity. Review should take place at regular intervals but at least every three years.</p>	<p>Partially meets</p> <p>The IOTC carry out stock assessments for all highly migratory species in the Indian Ocean. AFMA provides assistance by facilitating stock assessments and research within Australian waters. Albacore and bigeye tuna were both assessed in 2016, broadbill swordfish in 2017, while striped marlin and yellowfin tuna assessments took place in 2018.</p> <p>The results indicate the spawning biomass for albacore tuna, bigeye tuna, and broadbill swordfish are above the 20 per cent default limit reference point (LRP) for Commonwealth fisheries. These stocks are classified as not overfished and not subject to overfishing (Patterson et al. 2019).</p> <p>The mortality rate for yellowfin tuna and striped marlin are below that required to produce maximum sustainable yield (MSY). The yellowfin tuna stock biomass is classified as not overfished. The current fishing mortality rate is above MSY, and therefore is subject to overfishing and requires effective management action.</p> <p>The striped marlin stock is classified as overfished (biomass), and subject to overfishing with respect to fishing mortality (Patterson et al. 2019). The reported lack of fishery data for striped marlin reduces the level of confidence in this species stock status.</p>
<p>1.1.3 The distribution and spatial structure of the stock(s) has been established and factored into management responses.</p>	<p>Partially meets</p> <p>The distribution and spatial structure of broadbill swordfish and striped marlin stocks is well known, but there is some uncertainty in relation to the stock structure for albacore, bigeye, and yellowfin tuna stocks. Further research and surveys will provide information to fill data gaps for these, and other highly migratory species that occur in the Indian Ocean. Currently, the IOTC manage the Indian Ocean populations for the four target species as single biological stocks (Stewardson et al. 2018; Patterson et al. 2019).</p> <p>See Notes (Section 1) for links to previous EPBC Act assessments for 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>Partially meets</p> <p>AFMA has implemented mandatory reporting requirements, and compliance measures to help ensure confidence in the estimates for the domestic commercial catch. However, there is very little information for</p>

	<p>catches in the recreational sector. State and Northern Territory governments are responsible for managing recreational fishing in coastal waters. There is a lack of information about estimated Indigenous catches.</p> <p>The IOTC has also adopted resolutions for reporting catches for all high value species in the Convention Area. However, the IOTC noted in its assessment report for striped marlin that information is not provided by all participating nation states.</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>Abundance data is available to help estimate sustainable harvesting levels. Information from fishery dependent and independent data is used to estimate the productivity of the fishery, and includes regional stock assessments for quota-managed species. Mandatory reporting of catch and effort and size data are key aspects of the management arrangements. Biological information is available for each of the key species (Stewardson et al. 2018; Patterson et al. 2019).</p> <p>See Notes (Section 1) for links to previous EPBC Act assessments for this fishery.</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>Meets</p> <p>In 2015, the IOTC agreed to adopt interim target reference points (TRP) and LRPs for key species (Resolution 15/10)².</p> <p>The TACC is set in accordance with default LRP and TRP described in the harvest strategy policy for Commonwealth fisheries. There are reference points based on indicators of either total or spawning stock size (biomass) or the amount of harvesting (fishing mortality) (DAWR 2018b, p. 10). The Fishery Management Plan describes the process for setting provisional reference points for key species. Where no reference points are set, AFMA set precautionary catch limits. 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 IOTC Scientific Committee in developing scientific advice for the AFMA Commission to make management decisions and set TACCs.</p>
<p>1.1.7 There are management strategies in place capable of controlling the level of take.</p>	<p>Partially meets</p> <p>Harvesting is managed through a mixture of input and output controls with the four primary species managed under quota. Catch limits also apply to other primary and secondary species, including key species targeted by other jurisdictions. AFMA has not developed local harvest strategies for tuna species because current understanding of the level of subregional connectivity (mixing) would not allow a domestic harvest strategy to control the stock levels. Should stock structure research identify localised</p>

² Resolution 15/10 On target and limit reference points and a decision framework, Indian Ocean Tuna Commission, Available at <https://www.iotc.org/cmm/resolution-1510-target-and-limit-reference-points-and-decision-framework>.

	<p>stocks of target tuna species, then this approach might be applied to tuna in this fishery in future. In addition, ABARES reports that fishing effort has been low in this fishery for a number of years.</p> <p>The IOTC adopted Resolution 16/02 <i>on harvest control rules for skipjack tuna in the IOTC area of competence</i>³ to set harvesting control rules for skipjack tuna. For longtail tuna stock, the IOTC recommends the reduction in catch limits by approximately 10 per cent of 2014 levels to recover the stock to levels above MSY. In the domestic fishery, longtail tuna is subject to pre-landing reporting, and a fleet-wide catch limit of 35 tonne (t) per year, with trip limits enforced if the trigger is reached. Trip limits are in place for sharks, and key target or byproduct species taken in other jurisdictions.</p> <p>The management advice for Indo-Pacific sailfish is to maintain catches below 25,000 t. The IOTC adopted Resolution 18/02 <i>On management measures for the conservation of blue shark caught in association with IOTC fisheries</i>⁴. The IOTC has requested a blue shark stock assessment be carried out in 2020 (IOTC 2018).</p>
<p>1.1.8 Fishing is conducted in a manner that does not threaten stocks of byproduct species.</p>	<p>Partially meets</p> <p>Management arrangements include mandatory recording for all byproduct species caught or discarded with this information reported to AFMA each month. Restrictions apply to the take of some byproduct species. Risk assessments do not indicate any concerns regarding impacts to byproduct stocks from this fishery. A wide range of byproduct species include albacore, skipjack and southern bluefin tuna, although the overall harvesting of byproduct species is considered low. Fishing effort considered low to moderate.</p> <p>Albacore stocks are not overfished and not subject to overfishing⁵ (ABARES 2019). However, there is a lack of biological information for the albacore stock in the Indian Ocean, and the life history characteristics (e.g. late maturity, long life, and sexual dimorphism) make this species vulnerable to over exploitation.</p> <p>Skipjack tuna stock determined as 'not overfished' and 'not subject to overfishing' (IOTC 2017). IOTC adopted Resolution 16/02 <i>on harvest control rules for skipjack tuna in the IOTC area of competence</i>⁶ to set harvesting control rules for skipjack tuna. The longtail tuna stock in the Indian Ocean is 'overfished' and 'subject to overfishing'. IOTC recommends that catches be reduced by approximately 10 per cent of 2014 levels to recover the stock to levels above MSY. In the domestic fishery, longtail tuna is subject to</p>

³ Resolution 16/02 *on harvest control rules for skipjack tuna in the IOTC area of competence*, Indian Ocean Tuna Commission, Available at <https://iotc.org/cmm/resolution-1602-harvest-control-rules-skipjack-tuna-iotc-area-competence>.

⁴ Resolution 18/02 *On management measures for the conservation of blue shark caught in association with IOTC fisheries*, Indian Ocean Tuna Commission, Available at <https://www.iotc.org/cmms>.

⁵ *Status summary for species of tuna and tuna-like species under the IOTC mandate, as well as other species impacted by IOTC fisheries*, Indian Ocean Tuna Commission, Available at <https://iotc.org/science/status-summary-species-tuna-and-tuna-species-under-iotc-mandate-well-other-species-impacted-iotc>.

⁶ Resolution 16/02 *on harvest control rules for skipjack tuna in the IOTC area of competence*, Indian Ocean Tuna Commission, Available at <https://iotc.org/cmm/resolution-1602-harvest-control-rules-skipjack-tuna-iotc-area-competence>.

	<p>pre-landing reporting, and a fleet-wide catch limit of 35 t per year, with trip limits being enforced if the trigger is reached. Trip limits are in place for sharks, and key target or byproduct species taken in other jurisdictions.</p> <p>Indo-Pacific sailfin stock is not overfished but is subject to overfishing. The IOTC reports that no Member State or Cooperating non-Contracting Parties have submitted data on this stock, which increases the uncertainty for this stock. The management advice is to maintain Indo-Pacific sailfin catches below 25,000 t. The IOTC adopted Resolution 18/02 <i>On management measures for the conservation of blue shark caught in association with IOTC fisheries</i>⁷. The IOTC has requested a blue shark stock assessment be carried out in 2020 (IOTC 2018).</p> <p>Information for some key byproduct stocks is available on the IOTC webpage – Science / Status of the stocks available at https://www.iotc.org/science/status-summary-species-tuna-and-tuna-species-under-iotc-mandate-well-other-species-impacted-iotc.</p>
(Guidelines 1.1.1 to 1.1.7 should be applied to byproduct species to an appropriate level)	
<p>1.1.9 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Partially meets</p> <p>While the fishery is generally well managed, there are a number of concerns that must be addressed including ongoing monitoring of broadbill swordfish catches to ensure this stock is sustainably fished. It is important that AFMA, in collaboration with IOTC Scientific Committee, work towards developing appropriate measures to return broadbill swordfish stocks to a sustainable level.</p> <p>Based on the available information, the Department considers that the fishery has a low to medium chance to achieve the objective to conduct fishing operations at ecologically viable stock levels for all target species within the term of this wildlife trade declaration.</p>
<p>If overfished, go to Objective 2: If not overfished, go to PRINCIPLE 2:</p>	
<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.</p>	
<p>Management responses</p>	
<p>1.2.1 A precautionary recovery strategy is in place specifying management actions, or staged management responses, which are linked to reference points. The recovery strategy should apply until the stock recovers, and should aim for recovery within a specific time period appropriate to the biology of the stock.</p>	<p>Partially meets</p> <p>In January 2019, the IOTC implemented a work plan to address the yellowfin stock in the Indian Ocean. Advice from the IOTC Scientific Committee was to adopt revised management measures that reduce the allowable catch.</p> <p>For overfished striped marlin stocks, the IOTC Scientific Committee recommended the implementation of mechanisms to ensure the maximum allowable catch does not exceed 2,200 t per year to improve the</p>

⁷ Resolution 18/02 *On management measures for the conservation of blue shark caught in association with IOTC fisheries*, Indian Ocean Tuna Commission, Available at <https://www.iotc.org/cmms>.

	<p>prospects for this species stock to recover by 2026. However, the IOTC has not agreed to adopt this recommendation.</p> <p><i>Resolution 18/05 – On management measures for the conservation of the billfishes: striped marlin, black marlin, blue marlin, and Indo-Pacific sailfish</i> encourages Member States and Cooperating non-Contracting Parties to undertake, at a minimum, national management measures to support the sustainable exploitation of these stocks in line with the IOTC Agreement objectives. Resolution 18/05 includes mandatory reporting, catch limits for striped marlin (3,260 t), size limits, and other measures that minimise fishing effort.</p> <p><i>Resolution 18/01 – On an interim plan for rebuilding the Indian Ocean yellowfin tuna stocks in the IOTC area of competence</i> encourages concession holders to reduce their catch of yellowfin tuna.</p> <p><i>Resolution 17/04 – On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna, and non-targeted species caught by purse seine vessels in the IOTC area of competence</i> encourages concession holders to retain all catches that may be considered fit for human consumption. Mandatory reporting for all discards.</p> <p>AFMA has not yet developed or implemented any management arrangements specifically for yellowfin tuna or striped marlin.</p>
<p>1.2.2 If the stock is estimated as being at or below the biological and/or effort bottom line, management responses such as a zero targeted catch, temporary fishery closure or a ‘whole of fishery’ effort or quota reduction are implemented.</p>	<p>Partially meets</p> <p>In the domestic fishery, the management arrangements for yellowfin tuna or striped marlin are managed under quota aligned to the harvest strategy for Commonwealth fisheries.</p> <p>The IOTC has implemented a number of management responses to manage overfished stocks of yellowfin tuna and striped marlin. The IOTC adopted the following Conservation and Management Measures (CMMs) at its 22nd Session⁸ in May 2018:</p> <ul style="list-style-type: none"> • <i>Resolution 18/01 On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock in the IOTC Area of Competence</i> • <i>Resolution 18/05 On management measures for the conservation of billfish, striped marlin, black marlin, blue marlin and Indo-Pacific sailfish</i> <p>See Notes (Section 1) for links to further information about CMMs developed by the IOTC.</p>
<p>PRINCIPLE 2 - Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.</p>	
<p>Objective 1 - The fishery is conducted in a manner that does not threaten bycatch species.</p>	
<p>Information requirements</p>	

⁸ Report of the 22nd Session of the Indian Ocean Tuna Commission, Bangkok, Thailand, 21–25 May 2018, Available at <https://iotc.org/documents/report-22nd-session-indian-ocean-tuna-commission>.

<p>2.1.1 Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.</p>	<p>Meets</p> <p>Information about bycatch or discard species is recorded in daily logbooks, and reported to AFMA. Discard information for the top ten landed quota species for each vessel is collected and maintained through the Independent Scientific Monitoring Program (ISMP). Information is also obtained through electronic monitoring such as surveillance cameras. Misreporting may be identified through an analyses of bycatch records, and management actions taken accordingly. Species level reporting is required, where possible. There are limited means to independently verify bycatch records other than AFMA's independent scientific observer program. Observers are randomly assigned to vessels to collect a range of information including bycatch and discards.</p>
<p>Assessment</p>	
<p>2.1.2 There is a risk analysis of the bycatch with respect to its vulnerability to fishing.</p>	<p>Meets</p> <p>Risk analysis of bycatch vulnerability has been conducted. The level 2 PSA identified 32 species (or species groups) as being at high risk from fishing. The number of at risk species (or species groups) was reduced to zero following the residual risk assessment, which considers the effect of existing management arrangements. The fishery has recorded many interactions with seabirds including albatrosses, shearwaters, and petrels. Longlining poses the highest risk to seabirds, while the risk from minor line methods is much lower.</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>Management responses are in place by AFMA and IOTC, including VMS and on-board observers. AFMA's bycatch strategy contains guiding principles for identifying bycatch issues. AFMA has implemented a bycatch and discarding work plan for operators targeting tuna and billfish by longline. Management measures are continuously being reviewed, with the objective of reducing the impact of fishing operations on bycatch species. Risks to bycatch are addressed via the ERA/ERM framework (AFMA 2010).</p> <p>The IOTC adopted the following Conservation and Management Measures (CMMs) at its 22nd Session⁹ in May 2018:</p> <ul style="list-style-type: none"> • <i>Resolution 18/03 – On establishing a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the IOTC Area of Competence</i> • <i>Resolution 18/04 – On bioFAD experimental project</i>

⁹ Report of the 22nd Session of the Indian Ocean Tuna Commission, Bangkok, Thailand, 21–25 May 2018, Available at <https://iotc.org/documents/report-22nd-session-indian-ocean-tuna-commission>.

	<ul style="list-style-type: none"> • Resolution 18/07 – On measures applicable in case of non-fulfilment of reporting obligations in the IOTC • Resolution 18/08 – Procedures on a fish aggregating devices (FADs) management plan, including a limitation on the number of FADs, more detailed specifications of catch reporting from FAD sets, and the development of improved fad design to reduce the incidence of entanglement of non-target species <p>See Notes (Section 1) for links to further information on the AFMA and IOTC websites.</p>
2.1.4 An indicator group of bycatch species is monitored.	<p>Meets</p> <p>Although no indicator bycatch species is currently being monitored, the fishery has management strategies in place to mitigate impacts. Any species identified as high risk during the ERM process are regularly monitored.</p>
2.1.5 There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.	<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 also describes trigger limits and decision rules for seabirds. Risk assessments are undertaken for all species in which the fishery interacts. AFMA's ERM framework requires that AFMA respond to reduce risks to species identified as at high risk from fishing. Specific management measures are required but the appropriate management response will differ between species and fisheries.</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>Meets</p> <p>AFMA and industry have shown a commitment to develop and implement mitigation measures to minimise the impacts of fishing, particularly in the longline sector of the fishery. Given the measures in place, the fishery is considered to have a medium to high chance of achieving the objective to conduct fishing in a manner that does not threaten bycatch species.</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.	
Information requirements	
2.2.1 Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities.	<p>Meets</p> <p>Discards and interaction data for threatened, endangered and protected (TEP) species is collected via daily logbooks and e-monitoring (e.g. cameras and satellite tracking). E-monitoring can also be used to verify fishing data. Reporting is mandatory, and is recorded at the species or the species-group (e.g. albatrosses) level. Species-level data will improve the understanding of interactions, and subsequent development and implementation of appropriate management actions. Information is also gathered through research studies and surveys. Independent scientific observers may be placed on board vessels</p>

	<p>at random to collect bycatch/discard data. The marine bioregional plans (summarised in section 3 of this report) also considered the potential impacts to a number of TEP species by the fishery.</p> <p>There are no reports of interactions with threatened ecological communities (TEC). A number of TECs occur within the fishery's boundary. However, the longline sector is unlikely to interact with any TEC as this fishing method is predominantly used in deeper oceanic waters where TECs are unlikely to occur.</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>Ecological risk assessments have been completed for the fishery. The analysis indicates that no protected species are at high risk from fishing under the existing management arrangements. The level 2 residual risk analysis indicates that measures are in place to mitigate the risks. Measures include bycatch and discarding work plans, management strategies for protected species, and programs to improve best practice handling for captured species. Fishing bans or restrictions are in place for a number of species that occur within the area of the fishery.</p> <p>The IOTC Scientific Committee advised that the management of Oceanic Whitetip Shark (<i>Carcharinus longimanus</i>) required a precautionary approach because its population status remains uncertain and no quantitative stock assessment is currently available for this species. The advice noted that recent studies suggest longline mortality is high (50%) in the Indian Ocean, while mortality rates for interactions with other gear types such as purse seine may be higher (IOTC 2018). The IOTC carried out stock assessments for Blue Marlin and Black Marlin in 2016 with both stocks being subject to overfishing. The blue marlin stock was assessed as not overfished, while the black marlin stock is considered overfished.</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. While the ERA did not specifically identify risks to threatened ecological communities (TECs), the likelihood of any significant impacts to TECs is considered low. This is because oceanic longline fishing occurs in deeper waters away from the presence of possible TECs.</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>Mitigation strategy in place to avoid interactions with protected species. Landing of Shortfin Mako (<i>Isurus oxyrinchus</i>), Longfin Mako (<i>I. paucus</i>), and Porbeagle (<i>Lamna nasus</i>) sharks is prohibited unless the animal is dead on retrieval. Live specimens must be released to the water immediately.</p> <p>The domestic fishery includes measures to minimise the impact to TEP species. Oceanic longline vessels are required to implement the Seabird TAP during all fishing operations in Commonwealth waters. Mitigation and monitoring requirements of the Seabird TAP are given effect though conditions attached to boat SFRs. No take provisions apply to a number of species, including Blue Marlin and Black Marlin.</p>

	<p>The IOTC adopted the following Conservation and Management Measures (CMMs) at its 22nd Session¹⁰ in May 2018:</p> <ul style="list-style-type: none"> • <i>Resolution 18/02 – On management measures for the conservation of blue shark caught in association with IOTC fisheries</i> • <i>Resolution 18/03 – On establishing a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the IOTC Area of Competence</i> • <i>Resolution 18/04 – On bioFAD experimental project</i> • <i>Resolution 18/05 – On management measures for the conservation of billfish, striped marlin, black marlin, blue marlin and Indo-Pacific sailfish</i> • <i>Resolution 18/07 – On measures applicable in case of non-fulfilment of reporting obligations in the IOTC</i> • <i>Resolution 18/08 – Procedures on a fish aggregating devices (FADs) management plan, including a limitation on the number of FADs, more detailed specifications of catch reporting from FAD sets, and the development of improved fad design to reduce the incidence of entanglement of non-target species</i> <p>Further information is available at https://iotc.org/node/3384.</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>Meets</p> <p>Given the existing management strategies, and AFMAs commitment to ongoing research and development, the fishery has a medium to high chance of achieving the objectives to conduct the fishery in a manner that minimises the impact of fishing on endangered, threatened, or protected species. The management arrangements are likely to achieve the same objective for 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>There are mandatory data collection methods and mitigation measures in place in the fishery. Due to the low impact harvesting methods used in the fishery, impacts to the physical ecosystem are likely to be low.</p>

¹⁰ Report of the 22nd Session of the Indian Ocean Tuna Commission, Bangkok, Thailand, 21–25 May 2018, Available at <https://iotc.org/documents/report-22nd-session-indian-ocean-tuna-commission>.

	<p>The majority of catch is harvested by longlining, while smaller amounts are taken by minor line methods such as pole and line. A number of studies indicate that these fishing methods are not likely to have a major impact on the marine ecosystem (see for example, Song et al. 2012). Impacts on seabed communities and ecosystem structures are likely to be negligible. However, there is some potential for the main line to catch on large, erect, and fragile epifauna in shallower waters.</p> <p>The marine bioregional plans across the area in which the fishery operates has identified a number of protected species and key ecological features that may be impacted by the fishery. These impacts are summarised in section 3 (EPBC Act assessment) below. The removal of high order predators such as sharks, tuna, and billfish can potentially affect food webs and species assemblages. While these impacts have not been quantified for this fishery, management measures such as catch limits aim to ensure that sustainable populations are maintained.</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>An ERA has been conducted for the fishery. 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 in which those species occur. As a result, there are no major ecological sustainability concerns for this fishery. The highest level of assessment conducted was a quantitative level 3 sustainability assessment for fishing effects (SAFE) assessment. That assessment did not identify any Chondrichthyan or teleost species to be at high risk from this fishery. The level 2 productivity susceptibility analysis (PSA) identified 29 species at high risk. The ERA identified 264 TEP species as occurring in the area of the fishery, including marine turtles, marine mammals, seabirds, and sharks. The level 2 residual risk analysis reduced the risk to either low or medium.</p> <p>The ERA found longline and minor line fishing to have little or no direct impact on the physical marine environment (AFMA 2010). Independent research also indicates that longline fishing has a low impact to the marine environment (see for example, Pham et al. 2014).</p> <p>The effects of fishing are managed through a range of measures such as quota management for key target species, catch and trip limits for key primary and secondary byproduct species, catch triggers, gear restrictions, electronic monitoring, and mandatory reporting. The FM Act mandates that fishing be conducted in a manner consistent with the principles of ecological sustainable development.</p>
Management responses	
<p>2.3.3 Management actions are in place to ensure significant damage to ecosystems does not arise from the impacts described in 2.3.1.</p>	<p>Meets</p> <p>Management actions are in place to minimise impacts to the ecosystem. A range of management actions are developed and implemented to ensure fishing operations do not have a significant impact on the marine environment in which the fishery operates. Management measures include regular risk assessments, fishery closures, electronic monitoring such as surveillance cameras, and satellite tracking. These measures help to ensure that operators comply with licence or permit conditions.</p>

	<p>The ERA/ERM process examines the likelihood and consequences for the effects of fishing on target and byproduct species, bycatch, protected species, and the wider marine ecosystem. This process helps to mitigate the effects of fishing on the marine environment in which the fishery operates. Risks and mitigation measures are addressed in the risk assessment reports for the fishery. The management arrangements include a process to review the ERM framework. AFMA has adopted measures to ensure the impacts of interactions are minimal. Risks to seabird species from longlining are addressed through the seabird TAP.</p> <p>The IOTC has created a working party on ecosystems and bycatch to review and analyse matters relevant to bycatch, byproduct and non-target species, including sharks, marine turtles, seabirds, marine mammals, and other fishes, as well as the wider ecosystem in which the fishery operates. The working party also develops mechanisms to better integrate ecosystem management measures into the advice provided by the IOTC Scientific Committee. The most recent report of the IOTC working party on ecosystems and bycatch is available at https://iotc.org/documents/WPEB/14/Report_E¹¹.</p> <p>The IOTC adopted the following Conservation and Management Measures (CMMs) at its 22nd Session¹² in May 2018:</p> <ul style="list-style-type: none"> • <i>Resolution 18/02 – On management measures for the conservation of blue shark caught in association with IOTC fisheries</i> • <i>Resolution 18/03 – On establishing a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the IOTC Area of Competence</i> • <i>Resolution 18/04 – On bioFAD experimental project</i> • <i>Resolution 18/05 – On management measures for the conservation of billfish, striped marlin, black marlin, blue marlin and Indo-Pacific sailfish</i> • <i>Resolution 18/06 – On establishing a programme for transshipment by large-scale fishing vessels</i> • <i>Resolution 18/08 – Procedures on a fish aggregating devices (FADs) management plan, including a limitation on the number of FADs, more detailed specifications of catch reporting from FAD sets, and the development of improved fad design to reduce the incidence of entanglement of non-target species</i> <p>Further information is available at https://iotc.org/node/3384.</p>
<p>2.3.4 There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a</p>	<p>Partially meets</p>

¹¹ Report of the 14th Session of the IOTC Working Party on Ecosystems and Bycatch, Cape Town, South Africa, 10–14 September 2018, Available at https://iotc.org/documents/WPEB/14/Report_E.

¹² Report of the 22nd Session of the Indian Ocean Tuna Commission, Bangkok, Thailand, 21–25 May 2018, Available at <https://iotc.org/documents/report-22nd-session-indian-ocean-tuna-commission>.

<p>predetermined level, or where action is indicated by application of the precautionary approach.</p>	<p>Overall, impacts on the ecosystem are generally considered low. Monitoring of bycatch and incidental catch of protected species is a key priority in this fishery, particularly the level of catch and interactions for all shark species. The <i>Ecological risk management report for the Western Tuna and Billfish Fishery</i> indicates that AFMA will review its management of shark interactions, "if the landed amount of any one shark species reaches a predetermined level" (AFMA 2010). Additional performance measures to manage at risk species such as sharks and seabirds are in place through management strategies and threat abatement plans. AFMA anticipate developing an updated ecological risk assessment during the term of this wildlife trade declaration.</p> <p>The IOTC has not adopted any reference points or harvest control rules for any shark species. As a higher order predator, sustainable shark populations are vital to an ecologically viable marine ecosystem. The Department considers it important that AFMA continue to work with the IOTC to develop suitable harvest control rules for sharks in the Convention Area.</p>
<p>2.3.5 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Meets</p> <p>The management arrangements have a good chance of achieving the objective to conduct the fishery in a manner that minimises the impact of fishing operations on the ecosystem generally. While the IOTC has not adopted reference points or control rules for shark species, AFMA has implemented a number of measures that provide some protection to vulnerable sharks.</p> <p>While protected species bycatch is a concern, the management arrangements in place in the fishery and the conditions proposed in Section 4 of this assessment report, help to minimise impacts on bycatch species.</p>

SECTION 3: ASSESSMENT OF THE COMMONWEALTH WESTERN 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 North Marine Region, the North-west Marine Region (DSEWPac 2012), the South-west Marine Region (DoE 2015), and the South-east Marine Region. There is no marine bioregional plan in place for the South-east Marine Region, and there is no targeted fishing for the key species in the North Marine Region.</p> <p>Marine bioregional plans describe the marine environment and conservation values of the respective regions, identifies and characterises the pressures affecting these conservation values, identifies regional priorities and outlines strategies to address them. Conservation values are defined as those elements of the region that are key ecological features of the Commonwealth marine area or species listed under Part 13 of the EPBC Act that occur in each marine area, or protected places including marine reserves or heritage places.</p> <p>There is 23 conservation values of regional priority identified in the Marine Bioregional Plan for the South-west Marine Region. These include 10 protected species, eight key ecological features, and five pressures. Protected species include White Shark (<i>Carcharodon carcharias</i>), school shark, and seabirds. The key ecological features present in the area of the fishery, including Kangaroo Island Pool, canyons and adjacent shelf break, and Eyre Peninsula upwellings, and small pelagic fishes. Small pelagic fishes are considered important for ecological functioning and integrity, and are prone to overfishing without adequate management. Pressures of potential concern to these conservation values include the extraction of living resources and bycatch by commercial fisheries. Extraction of living resources places pressure on Australian Sea Lions and seabirds by reducing the availability of prey species.</p> <p>In the Marine Bioregional Plan for the Temperate East Marine Region, there are 16 conservation values of regional priority. These include five protected species, seven key ecological features, and four pressures. Protected species of concern include Grey Nurse (<i>Carcharias taurus</i>), and white sharks, and foraging seabirds. The key ecological features present in the area of the fishery include the Tasman front and eddy field, and the Tasmanid seamount chain. The key features support highly diverse marine life, and provide important habitat for a range of commercially important species. Relevant pressures of regional concern include bycatch and extraction of living resources, climate change factors (e.g.</p>

	<p>acidification and water temperature), and impacts caused by marine debris. A number of species are prone to bycatch. This concern is particularly relevant to seabird bycatch in longline fishing operations.</p> <p>Given the management measures in place in the fishery, the conservation values identified in these marine regions are not considered to be compromised by this fishery. However, the risks and uncertainties identified in this assessment require ongoing monitoring, assessment, and management 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>
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Part 13 – Species and communities

Accreditable plan, regime or policy (Division 1, Division 2, Division 3, Division 4)	Comment
<p>s. 208A (1) (a-e) , s.222A (1) (a-e), s.245 (1) (a-e), s.265 (1) (a-e)</p> <p>Does the fishery have an accreditable plan of management, regime or policy?</p>	<p>Meets</p> <p>Yes, there is an accreditable management regime. The Western Tuna and Billfish Fishery will be managed in accordance with the <i>Western Tuna and Billfish Fishery Management Plan 2005</i> (as amended) and subordinate legislation made under the <i>Fisheries Management Act 1991</i> (Cth).</p>
Division 1 Listed threatened species, Section 208A Minister may accredit plans or regimes	Comment
<p>(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing?</p>	<p>Meets</p> <p>Yes, there are specific measures in place to mitigate the risk to listed threatened species. However, while the effectiveness of these measures is demonstrated, the number of interactions remains high for some species. Condition</p> <p>The management plan for the fishery was accredited in November 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 electronic monitoring. In addition, new fishery regulations are now in place for all Commonwealth fisheries. Part 7 of the new regulations describe 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.</p> <p>The Department agreed that the amendments did not significantly affect the sustainability of the fishery and that a new Part 13 declaration is not required at this time.</p> <p>Given the legislation in force, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of members of listed threatened species.</p>

<p>(g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species?</p>	<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 interact with albatrosses (Black-browed, Shy and Wandering), marine turtles (Leatherback, Loggerhead, Olive, and Flatback), and sharks.</p> <p>Although the fishery continues to report interactions with some species, the Department considers the range of management strategies and mitigation measures in place help to minimise the impact of fishing overall. High-risk species are addressed through the ERA process. Catch limits limit the impact to vulnerable shark populations, and no take rules are in place for conservation dependent and protected species.</p> <p>Given the management arrangements in place, 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>
<p>Division 2 Migratory species, Section 222A Minister may accredit plans or regimes</p>	<p>Comment</p>
<p>(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>	<p>Meets</p> <p>Yes, there are specific measures in place to mitigate the risk to migratory species. Measures include bycatch and discard work plans, and no take rules to mitigate impacts on sharks.</p> <p>The management plan for the fishery was re-accredited in November 2014. AFMA advise the Department of amendments to the management regime as they occur, and through annual reports. The Department agreed that the amendments did not significantly affect the sustainability of the fishery and that a new Part 13 declaration was not required at that time.</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>
<p>(g) And, is the fishery likely to adversely affect the conservation status of a listed migratory species or a population of that species?</p>	<p>Partially meets</p> <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 interactions with migratory sharks, marine turtles, and seabirds.</p> <p>Although interactions do occur, arrangements are in place to minimise interactions with migratory species. In addition, the ERA for this fishery indicates no migratory species is high risk from the effects of fishing. Therefore, the Department considers the current operation of the fishery is not likely to affect the conservation status of a listed migratory species or a population of that species.</p>

Division 3 Whales and other cetaceans, Section 245 Minister may accredit plans or regimes	Comment
(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 for this fishery to mitigate the risk to cetaceans.</p> <p>The management plan for the fishery was accredited in November 2014. AFMA advise the Department of amendments to the management regime as they occur, and through annual reports. The Department agreed that the amendments did not significantly affect the sustainability of the fishery and that a new Part 13 declaration was not required at that time.</p> <p>Given the legislation in force, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of cetaceans and 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>Operators reported interactions 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 (<i>Globicephala macrorhynchus</i>). 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 addressed through the ERA process, the Department considers the current operation of the fishery is not likely to affect the conservation status of a species of cetacean or a population of that species.</p>
Division 4 Listed marine species, Section 265 Minister may accredit plans or regimes	Comment
(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>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 did not significantly affect the sustainability of the fishery and that a new Part 13 declaration was not required at that time.</p> <p>The management arrangements include specific measures to mitigate the risk, including mandatory seabird management plans on all longline vessels, bycatch reduction devices, and actions articulated in vessel management plans and bycatch and discard work plans.</p>

	Given these, and other management arrangements, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of listed marine species.
(g) And, is the fishery likely to adversely affect the conservation status of a listed marine species or a population of that species?	<p>Partially 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 interactions with pinnipeds (seals and sea lions) and seabirds, particularly albatrosses and shearwaters.</p> <p>Mitigation measures include bycatch and discard work plans, and 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.</p>
Section 303AA Conditions relating to accreditation of plans, regimes and policies	Comment
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	<p>Recommend accreditation under sections 208A, 222A, 245, and 265.</p> <p>The Department considers that the accreditation of the fishery's management regime remains valid 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>(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>Not applicable</p> <p>No conditions required.</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>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> <ul style="list-style-type: none"> (a) to ensure that Australia complies with its obligations under CITES and the Biodiversity Convention; (b) to protect wildlife that may be adversely affected by trade; (c) to promote the conservation of biodiversity in Australia and other countries; (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way; (e) to promote the humane treatment of wildlife; (f) to ensure ethical conduct during any research associated with the utilisation of wildlife; and (h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife. 	<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 ensure that Australia complies with its 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> <ul style="list-style-type: none"> (a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to: <ul style="list-style-type: none"> (i) the survival of any taxon to which the specimen belongs; or 	<p>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, which will allow the Department to monitor the status of CITES specimens harvested in the fishery.</p> <p>Condition 4 requires AFMA to ensure appropriate arrangements are in place to manage CITES-listed sharks (see Table 1, Section 4). This condition will allow the Department to monitor the status of CITES specimens harvested in the fishery.</p>
<ul style="list-style-type: none"> (ii) the recovery in nature of any taxon to which the specimen belongs; or 	<p>The CITES specimens harvested from the fishery are not considered to be over fished in Australian waters, as concluded by the non-detriment finding (DoEE 2014). Management arrangements are in place to help ensure CITES species are sustainably fished. Should stocks fall below defined</p>

	<p>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 number of high seas permits, quota management system (ITQs and TACC linked to harvest strategy), vessel and catch SFRs, gear and spatial restrictions, and no take species.</p>
(iii) any relevant ecosystem (for example, detriment to habitat or biodiversity); and	<p>Recognising the nature of harvest and gear used in the fishery (i.e. longline and minor line), 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> <ul style="list-style-type: none"> (i) including items in the list; (ii) deleting items from the list; (iii) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; (iv) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or <p>(b) correcting an inaccuracy or updating the name of a species.</p>	<p>The Department recommends that specimens that are or are derived from fish or invertebrates harvested in the Western Tuna and Billfish Fishery, as defined in the <i>Western Tuna and Billfish Fishery Management Plan 2005</i> in force 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>be included in the list of exempt native specimens while the fishery is subject to a declaration as an approved wildlife trade operation.</p>
(1A) In deciding to amend the LENS, the Minister must rely primarily on the outcomes of an assessment under Part 10, Divisions 1 or 2	<p>Meets</p> <p>The fishery was assessed under Part 10 of the EPBC Act in April 2006. In conducting this assessment, the Department considered that actions taken in accordance with the <i>Western Tuna and Billfish Fishery Management Plan 2005</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 amendments to the fishery's management arrangements since that accreditation. The Department accounted for further changes to the management</p>

arrangements through re-assessments for this fishery in 2009 and 2014. A number of changes have been made since the 2014 re-assessment, including:

- Management arrangements in the fishery with respect to environmental standards remain largely unchanged.
- Introduction of e-monitoring.
- The IOTC introduced new conservation measure for the 2019/2020 fishing season that requires operators to release any striped marlin and Indo Pacific sailfish <than 60 cm lower jaw fork length.
- A new permit condition exempts permit holders from a ban on discharging offal while the crew are hauling the line.
- The removal of any requirement to deploy tori lines during darkness providing the deck lighting is controlled and allows the use of smart hooks if wanted.
- Bycatch limit of 200 Mahi Mahi in total in waters off WA (a substantial increase from 10 fish in total). Ten Mahi Mahi is allowed in waters off NT.
- General Bycatch provisions in all waters are regularly updated to include newly listed EPBC protected species and IOTC no take species, including Silky (*Carcharhinus falciformis*) and oceanic whitetip sharks.
- Permit conditions for sharks have evolved, and include bans on wire trace, and shark finning, mandatory use of line cutters and dehookers, trip limits, and no take species.
- VMS and bycatch handling conditions on fishing permits have been updated.
- The introduction of a quota management system for the four primary target species.
- E-monitoring was introduced in 2015, and is mandatory for all longline vessels that deploy more than 30 shots per year in the fishery.
- AFMA anticipate developing a fishery management strategy for this fishery that will incorporate a number of existing strategies and policies (e.g. harvest strategy, bycatch and discarding work plan, and ERA).
- *Fisheries Management Regulations 1992* repealed, and replaced with the *Fisheries Management Regulations 2019* from 1 October 2019. Regulatory amendments are mostly minor, and will:
 - 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.

	<ul style="list-style-type: none"> ○ 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 this fishery.</p>
<p>(3) Before amending the LENS, the Minister must consult:</p> <ul style="list-style-type: none"> (a) other Minister or Ministers as appropriate; and (b) other Minister or Ministers of each State and self-governing Territory as appropriate; and (c) other persons and organisations as appropriate. 	<p>Meets</p> <p>The submission from AFMA was made available on the Department's website from 12 August 2019 to 16 September 2019. No comments 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) 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.</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 Federal Register of Legislation (FRL), and a link to the instrument made available through the Department's website.</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> <ul style="list-style-type: none"> (a) the operation is consistent with the objects of Part 13A of the Act; and 	<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> <ul style="list-style-type: none"> (i) the survival of a taxon to which the operation relates; or (ii) the conservation status of a taxon to which the operation relates; and <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>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 are summarised in the Guidelines assessment above, and include ITQs for key target species, catch limits for key primary and secondary species not managed by quota, trip limits for a number of species such as sharks, no take rules for protected and conservation dependent species, and limited number of high seas permits.</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> <ul style="list-style-type: none"> (a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and 	<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 section 303FN(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> <ul style="list-style-type: none"> (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>Meets</p> <p>The fishery will be managed under the <i>Western Tuna and Billfish Fishery Management Plan 2005</i>, and subordinate legislation made under the <i>Fisheries Management Act 1991</i> (Cth).</p> <p>The FM Act applies to Australian-flagged vessels fishing throughout Commonwealth waters, and on the high seas.</p> <p>The Department considers that the legislation is likely to be effective.</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>(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 Western 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>The fishery was assessed under Part 10 of the EPBC Act in April 2006. In conducting this assessment, the Department considered that actions taken in the fishery in accordance with the Fishery Management Plan would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area. Consequently, the 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. Summarised at section 303DC(1A) above.</p>
<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>	
<p>Section 303FR Public consultation</p>	<p>Comment</p>
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <p>(a) setting out the proposal to make the declaration; and</p> <p>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</p> <p>(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.</p> <p>(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.</p>	<p>Meets</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 12 August 2019 to 16 September 2019, a total of 26 business days.</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.	Not applicable No public comments about the proposal were received.
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) 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: (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of declaration is to specify the period, circumstances or condition.	The standard conditions applied to commercial fishery wildlife trade operations include: <ul style="list-style-type: none"> • operation in accordance with the management regime • notifying the Department of any material changes to the management regime, and • annual reporting in accordance with the requirements of the Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition. The wildlife trade operation instrument for the fishery specifies the standard and any additional conditions applied.
(8) A condition may relate to reporting or monitoring.	One of the standard conditions relates to reporting.
(9) The Minister must, by instrument published in the <i>Gazette</i> , revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.	Not applicable. No condition has been contravened.
(11) A copy of an instrument under section 303FN, or this section is to be made available for inspection on the internet.	The instrument for the fishery made under sections 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
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| <p>(1) Minister must take account of the precautionary principle in making a decision, to the extent that the decision is consistent with other provisions under this Act.</p> <p>(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.</p> | <p>Meets</p> <p>Given the utilisation of ecological risk assessments, harvest strategies containing harvest control rules, a bycatch and discarding work plan, and the implementation of the <i>Threat abatement plan for the impacts of marine debris on the vertebrate wildlife of Australia's coasts and oceans</i> (DoEE 2018), precautionary measures are considered to be in place to prevent serious or irreversible environmental damage being caused by this fishery.</p> |
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SECTION 4: COMMONWEALTH WESTERN TUNA AND BILLFISH FISHERY – SUMMARY OF ISSUES REQUIRING CONDITIONS, NOVEMBER 2019

Issue	Condition
<p><u>General Management</u></p> <p>Export decisions relate to the management arrangements in force at the time of any decision(s) made under the EPBC Act. To ensure that the decision(s) remain valid and export approval continues uninterrupted, the Department of the Environment and Energy (the Department) needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision(s). This includes operational and legislated amendments that may affect the sustainability of the target species or negatively impact on byproduct, bycatch, EPBC Act protected species or the ecosystem.</p> <p>The Australian Fisheries Management Authority (AFMA) manages the fishery in accordance with the <i>Western Tuna and Billfish Fishery (WTBF) Management Plan 2005</i>, made under the <i>Fisheries Management Act 1991</i> (Cth) (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, electronic logbooks, and changes to the fishing season start and end dates. In addition, the <i>Fisheries Management Regulations 2019</i> (Cth) has replaced the <i>Fisheries Management Regulations 1992</i> Cth). The revised regulations include a definition for vessel monitoring systems (VMS), and clarify the obligations for all operators 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 introduce measures that allow 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 Commonwealth Western Tuna and Billfish Fishery will be carried out in accordance with the <i>Western Tuna and Billfish Fishery Management Plan 2005</i> 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 Commonwealth Western Tuna and Billfish Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.</p>
<p><u>Annual Reporting</u></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 monitored and assessed throughout the life of the export approval. 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</p>	<p>Condition 3:</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</i></p>

Issue	Condition
<p>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 recommendations 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><i>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, shortfin mako, and longfin mako sharks, but only if the animal is brought to the boat dead. All live specimens must be released back to the water unharmed as soon as practical.</p> <p>The assessment has considered the possible impacts from fishing in this fishery on shark species listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). As a party to the Convention, Australia must apply all CITES provisions of the EPBC Act to imports and exports of CITES listed species as appropriate. Under these provisions, export of CITES specimens may only occur where a declaration as an approved wildlife trade operation is supported by a non-detriment finding issued by the CITES Scientific Authority of the country of export.</p> <p>In September 2014, Great Hammerhead (<i>Sphyrna mokarran</i>), Scalloped Hammerhead (<i>S. lewini</i>), Smooth Hammerhead (<i>S. zygaena</i>), porbeagle, and oceanic whitetip sharks were listed on Appendix II to CITES. The CITES Scientific Authority of Australia subsequently made a non-detriment finding for the take of hammerhead shark species in Australia. The take of hammerhead sharks in this fishery remains below the levels considered sustainable by the CITES Scientific Authority of Australia, and does not represent a significant impact to these species.</p> <p>The 2014 assessment of oceanic whitetip shark by the CITES Scientific Authority of Australia found that this species is at risk of overfishing from international tuna longline fisheries. Therefore, a finding of non-detriment could not be made and no export of this species can be permitted. The 2014 assessment concluded that ongoing minimal take of porbeagle sharks was unlikely to be detrimental. However, porbeagle sharks are listed migratory under Part 13 of the EPBC Act. Therefore, porbeagle sharks may not be targeted in this fishery and can only be retained if already dead at retrieval. All live specimens must be released back to the water unharmed as soon as practical.</p> <p>In September 2019, parties to the CITES Convention agreed to list shortfin mako and longfin mako sharks on Appendix II. This listing will take effect on 26 November 2019. As the CITES Scientific Authority of Australia has not made a non-detriment finding for the harvesting of mako</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>

Issue	Condition
<p>sharks, the export of these species is prohibited. Mako sharks are also listed migratory under Part 13 of the EPBC Act, and the provisions that apply to porbeagle also apply to mako sharks.</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, or likely to be, harvested in the fishery and advise on the level of harvest.</p> <p>Reporting of protected species interactions must be made in line with the memorandum of understanding in place between the Department and AFMA. Interactions with CITES-listed sharks should also be reported as part of annual reporting as required by Condition 3 above.</p>	

Issue	Condition
<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, particularly CITES-listed mako sharks. 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 Indian Ocean and elsewhere.</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. It is important that AFMA continue to work, through its role in the Australian delegation, with the Indian Ocean Tuna Commission (IOTC) and other countries within the region with regard to ensure shark populations are sustainably fished.</p> <p>The Department has previously articulated the importance of Australian fisheries assisting international efforts to manage globally threatened shark stocks. 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>. The Department's position, that shark species encountered in this fishery continue to be accurately recorded to enable the extent of impact to be determined, is unchanged.</p> <p>Given their highly migratory nature, improved information and management of sharks incidentally caught in this fishery may contribute to mitigating the impact on global populations of shark species. The information collected should identify the species impacted, and contribute to developing and implementing 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. AFMA has advised that the introduction of electronic logbooks will improve the accuracy in reporting, particularly life status reporting for species such as mako sharks.</p> <p>The Department acknowledges 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 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>Condition 5:</p> <p>The Australian Fisheries Management Authority to continue efforts to determine the extent of the impact of fishing on shark species, and to make demonstrable progress in improving the status of shark bycatch in the Western Tuna and Billfish Fishery.</p>

Issue	Condition
<p><u>Target and byproduct species</u></p> <p>It is important that fisheries be conducted in a manner that maintains ecologically viable stock levels at an agreed point or range with acceptable levels of probability that stocks will recover. Regular stock assessments, facilitated by the IOTC, are undertaken to support the management of key species in this fishery. However, the Department has concerns regarding two key species targeted by the fishery – yellowfin tuna and striped marlin.</p> <p>Stock assessments undertaken in 2018 for yellowfin tuna and striped marlin determined that both stocks are overfished and subject to overfishing based on the weight of evidence approach (IOTC 2018a; 2018b).</p> <p>In the <i>Fishery Status Reports 2018</i>, Williams et al. (2018) agreed that the fishing mortality for both species was subject to overfishing. In the same report, the striped marlin biomass is classified as uncertain, while yellowfin tuna was determined to be not overfished (ABARES 2018). The assessment report confirmed previous assessment results, and pointed to the striped marlin stock biomass being well below the level that would produce MSY for at least the past 10 years.</p> <p>The Department acknowledges efforts by AFMA and the IOTC to implement mandatory data collection and to undertake research to collect additional information for these species. The harvest strategy for Commonwealth fisheries includes default limit and target reference points. AFMA use these reference points to manage the key species stocks targeted in this fishery. The IOTC has adopted interim target and limit reference points for all target species (Resolution 15/10).</p> <p>While recognising the role of the IOTC in the management of yellowfin tuna and striped marlin stocks, the Department also acknowledges Australia's contribution to data collection and engagement in IOTC processes. AFMA, in collaboration with the Department of Agriculture, has a crucial role to play in encouraging participating member states to develop mechanisms that aim to rebuild yellowfin tuna and striped marlin stocks to ecologically sustainable levels in the Indian Ocean.</p>	<p>Condition 6:</p> <p>The Australian Fisheries Management Authority, in collaboration with the Department of Agriculture, to work with the Indian Ocean Tuna Commission in relation to improving understanding of the status for stocks currently classified as overfished or uncertain.</p>

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