



Australian Government

Department of the Environment and Energy

Assessment of the
COMMONWEALTH SMALL PELAGIC FISHERY

October 2018

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This report should be attributed as '*Assessment of the Commonwealth Small Pelagic Fishery October 2018*, Commonwealth of Australia 2018'.

Disclaimer

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

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EXECUTIVE SUMMARY OF THE ASSESSMENT OF THE COMMONWEALTH SMALL PELAGIC FISHERY

On 10 August 2018, the Australian Fisheries Management Authority (AFMA) submitted an application for the Commonwealth Small Pelagic Fishery (the fishery) to the Department of the Environment and Energy (the Department) for assessment under the provisions of Part 13 (protected species) and Part 13A (wildlife trade) of the Commonwealth *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 15 August 2018 to 12 September 2018. One public comment was received which raised concerns regarding the bycatch of EPBC Act protected species, AFMA's management of target stocks including localised depletion, independent monitoring of fishing operations, impact on recreational fisheries, and a perceived lack of opportunity for stakeholder input into the management of the fishery. The Department has considered public comments received on the application for reassessment.

Management arrangements

The fishery operates in Commonwealth waters from the Queensland / New South Wales border around the southern states (Victoria, Tasmania and South Australia) to the south-west coast of Western Australia. Species are targeted using jigging, minor line (e.g. rods and reels), purse seine, and mid-water trawl methods. Pair trawling is currently being trialled until 31 October 2018 to determine its suitability for ongoing use in this fishery.

AFMA manage the fishery under the Small Pelagic Fishery Management Plan 2009, which is made under the *Fisheries Management Act 1991* (Cth). AFMA has advised the Department of changes to the management arrangements. The fishery is managed through input (effort) and output (catch) controls, including:

- limited entry,
- quota management for target species and aligned to statutory fishing rights,
- mandatory logbook reports, which include effort, catches for target, byproduct, and bycatch species, threatened, endangered and protected species interactions, and fishing locations,
- a harvest strategy that underpins the total allowable commercial catch and recommended biological catch,
- revised area management arrangements, which includes limiting the take in each fishery area,
- electronic monitoring on all mid-water trawl vessels,
- independent on-board observers on a minimum 10 per cent of the total number of days fished for the purse seine sector, and 20 per cent in the mid-water trawl sector,
- all mid-water trawl vessels to have mandatory vessel management plans to minimise interactions with protected species, and mandatory dolphin mitigation plans, and
- area closures.

Target stocks

The fishery targets Australian Sardine (*Sardinops sagax*), Blue Mackerel (*Scomber australasicus*), Jack Mackerel (*Trachurus declivis*, *T. murphyi*) and Redbait (*Emmelichthys nitidus*). No target species is considered overfished or subject to over-fishing.

The fishery takes a range of byproduct species, most notably Thresher Shark (*Alopias vulpinus*), Gould's Squid (*Nototodarus gouldi*), Australian Anchovy (*Engraulis australis*), Eastern Orange Perch (*Lepidoperca pulchella*), Yellowtail Scad (*Trachurus novaezelandiae*), and Gemfish (*Rexea solandri*).

Gemfish occurs in two distinct stocks. Eastern Gemfish stock is classified as overfished, and listed as conservation dependent under the EPBC Act. In response, AFMA has implemented a strategy to help rebuild eastern Gemfish stocks by 2027.

Information requirements

AFMA has developed a strategic research plan to ensure that target stocks continue to be fished sustainably. The strategy outlines timelines for priority research including assessments for key stocks and impacts to protected species. It is important that AFMA continue to facilitate research for species listed under Part 13 of the EPBC Act.

Ecosystem impacts

Taking into account management measures described above, and AFMA's approach to managing potential impacts to the marine environment through its risk management framework, the Department considers that the management regime for the fishery provides for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

Conclusion

The Department considers that the management measures in place in the fishery are sufficient to ensure that fishing operations are conducted in a manner that does not lead to over-fishing and that stocks are not currently overfished. The key challenge for this fishery will be regular reviews to mitigation strategies and continued implementation of appropriate management actions help minimise interactions with protected species.

Given the management measures described above, the Department has determined that product taken in the Commonwealth Small Pelagic Fishery should be included in the list of exempt native specimens under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) until 21 October 2023.

SECTION 1: ASSESSMENT SUMMARY OF THE COMMONWEALTH SMALL PELAGIC 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	8 of 9	1 of 9		<p>The management regime is effective.</p> <p>The management strategy is well developed, highly precautionary, and effectively deals with uncertainty and risk.</p> <p>Partially compliant with relevant plans – There is a lack of information regarding the risk of fishing to the Giant Kelp Marine Forests of South-east Australia threatened ecological community (listed endangered).</p>
Principle 1 (target stocks)	10 of 11	1 of 11		<p>Target and by-product stocks are generally well managed.</p> <p>Collection of catch and effort data is adequate. Appropriate management arrangements are in place to ensure stocks are fished sustainably, and includes adequate reference points and strategies ensure timely management actions are implemented.</p> <p>1.1.8 – Eastern Gemfish stocks are classified as overfished, and the species is listed as conservation dependent under the EPBC Act. AFMA's stock rebuilding strategy aims to recover stocks by 2027.</p>
Principle 2 (bycatch and TEPS)	9 of 12 1 of 12 N/a	2 of 12		<p>The risk to bycatch and protected species is high, however appropriate mitigation measures are in place.</p> <p>AFMA has implemented a bycatch mitigation work plan and species-specific mitigation strategies for this fishery.</p> <p>2.1.3 – Strong bycatch mitigation measures in place, but bycatch is an ongoing issue.</p> <p>2.1.6 – The high numbers of discards for some species reduces the fishery's capacity to meet the overall objective.</p>
Principle 2 (ecosystem impacts)	4 of 5	1 of 5		<p>Ecological risk is inherently low</p> <p>Management arrangements are ecosystem-based, and guided by AFMA's ecological risk management framework. Management is precautionary and designed to minimise potential impacts.</p> <p>2.3.1 – Very little information is available regarding data collection methods to assess the fishery's impact on the ecosystem and environment.</p>

EPBC requirements	Meets	Partially meets	Does not meet	Details
Part 12	All met			The fishery intersects with the South-west Marine Region and the Temperate East Marine Region. Extraction of living resources and bycatch are considered pressures of concern in both marine regions. Current arrangements are considered sufficient to manage relevant pressures.
Part 13	All met			Reported interactions with protected species in the trawl sector. Mitigation measures are adequate and based on a nationally recognised risk management framework.
Part 13A	All met			The fishery is consistent with the Objects of Part 13A, the Department recommends that product from this fishery be included in the list of exempt native specimens for a period of five years, until 21 October 2023.
Part 16	All met			The Department considers that precautionary measures are in place to prevent serious or irreversible environmental damage being caused by this fishery.

Notes:

Assessment history:

- Information on previous assessments for the Commonwealth Small Pelagic Fishery is available on the Department's website at <http://environment.gov.au/marine/fisheries/commonwealth/small-pelagic>.
 - 1st assessment finalised December 2004 – Exempt from export approval until 01 June 2005 while an approved wildlife trade operation (WTO) is in place for the fishery. Export approval varied until 28 February 2006. Export approval varied until 06 December 2007. Export approval subject to five conditions and nine recommendations. Accredited under Part 13 of the EPBC Act on 29 November 2004.
 - 2nd assessment finalised February 2009 – Exempt from export approval until 27 February 2009 while an approved WTO is in place for the fishery. Export approval subject to five conditions. Export approval varied until 05 December 2010. Export approval subject to three conditions and five recommendations. Accredited under Part 13 of the EPBC Act on 05 December 2007.
 - 3rd assessment finalised January 2010 – The list of exempt native specimens (LENS) was amended to include product from the fishery until 02 January 2014. Export approval was subject to three recommendations.
 - 4th assessment finalised August 2012 – Exempt from export approval until 18 November 2014 while an approved WTO is in place for the fishery under Final (Small Pelagic Fishery) Declaration 2012. Export approval was varied until 24 April 2015 under Final (Small Pelagic Fishery) Declaration (No. 2) 2013. Accredited under Part 13 until 17 September 2012. Part 13 accreditation varied until 19 November 2012. Part 13 accreditation varied only for the period the Final Declaration is in force.
 - 5th assessment finalised October 2015 – Exempt from export approval until 26 October 2018 while an approved WTO is in place for the fishery. The list of exempt native specimens (LENS) was amended. Export approval was subject to three conditions and one recommendation, and two Part 13 conditions. Accredited under Part 13 of the EPBC Act on 26 October 2015.

Fishery reporting, including annual reports:

- Annual report 2016–17 at <https://www.afma.gov.au/sites/g/files/net5531/f/minisite/static/3856/annual-report-2016-17/index.html>.
- Past annual reports at <https://www.afma.gov.au/about/corporate-publications>.
- Annual catch and effort data at <http://www.afma.gov.au/resources/catch-data/>.

Key links for information relevant to managing the fishery:

- Australian Fisheries Management Authority at <http://www.afma.gov.au/>.
- Commonwealth Small Pelagic Fishery at <http://www.afma.gov.au/fisheries/small-pelagic-fishery/>.
- Southern and Eastern Scalefish and Shark Fishery and Small Pelagic Fishery (Closures) Direction 2016 (ceases 01/05/2021) at <https://www.legislation.gov.au/Current/F2018C00531>.
- Small Pelagic Fishery purse seine scientific observer manual at http://www.afma.gov.au/wp-content/uploads/2014/02/SPF-observer_manual.pdf.
- Commercial fish species rebuilding strategy for Eastern Gemfish at <http://www.afma.gov.au/sustainability-environment/protected-species-management-strategies/>.

Management arrangements:

- Commonwealth Small Pelagic Fishery Management Plan 2009 at <http://www.comlaw.gov.au/Current/F2010L00081>.
- Small Pelagic Fishery management arrangements at <https://www.afma.gov.au/fisheries/small-pelagic-fishery>.
- Small Pelagic Fishery purse seine code of practice at http://www.afma.gov.au/wp-content/uploads/2010/07/code_of_practice1.pdf.

Enforcing legislation:

- Federal Register of Legislation at <https://www.legislation.gov.au/Home>.
- *Fisheries Management Act 1991* (Cth) at <https://www.legislation.gov.au/Current/C2017C00363>.
- Fisheries Management Regulations 1992 (Cth) at <https://www.legislation.gov.au/Current/F2017C00241>.

Harvest strategy:

- Small Pelagic Fishery harvest strategy, June 2008 (Revised April 2017) at <https://www.afma.gov.au/sustainability-environment/harvest-strategies>.
- Commonwealth fisheries harvest strategy policy and guidelines, September 2007 at http://www.agriculture.gov.au/fisheries/domestic/harvest_strategy_policy.

Ecological risk assessments, including bycatch and protected species strategies:

- Ecological risk assessment reports for the Small Pelagic Fishery, and AFMA's risk management framework at <http://www.afma.gov.au/sustainability-environment/ecological-risk-management-strategies/>.
- Protected species interaction reports at <https://www.afma.gov.au/sustainability-environment/protected-species-management/protected-species-interaction-reports>.
- Protected species management information at <http://www.afma.gov.au/sustainability-environment/protected-species-management/>.
- Bycatch and discarding work plans at <http://www.afma.gov.au/sustainability-environment/bycatch-discarding/bycatch-discard-workplans/>.
- Commonwealth fisheries bycatch information at <http://www.agriculture.gov.au/fisheries/environment/bycatch>.

Stock assessments, including stock rebuilding strategies:

- Small Pelagic Fishery stock assessment reports – <http://www.afma.gov.au/fisheries/small-pelagic-fishery/>, including:
 - Bulman CM, Fulton EA, and Smith ADM 2015 'Jack mackerel stock structure in the SPF', May 2015, Prepared for the Australian Fisheries Management Authority by CSIRO, Canberra ACT, Available at <http://www.afma.gov.au/wp-content/uploads/2014/02/Jack-mackerel-stock-structure-in-the-SPF-2015-PDF-4.3-MB.pdf>.
 - Punt AE, Little LR and Hillary R 2016 'Assessment for Eastern Blue Mackerel', Available at <http://www.afma.gov.au/wp-content/uploads/2018/06/Blue-Mackerel-Assessment.pdf>.
 - Ward TM, Burnell O, Ivey A, Carroll J, Keane J, Lyle J, and Sexton S 2015 'Summer spawning patterns and preliminary DEPM survey of jack mackerel and Australian sardine off the East Coast (March 2015)', Available at <https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2014/02/Summer-spawning-patterns-and-preliminary-DEPM-survey-of-jack-mackerel-and-Australian-sardine-off-the-East-Coast-2015.pdf>.
 - Ward and Grammer 2018 'Commonwealth Small Pelagic Fishery: Fishery assessment report 2017', May 2018, Available at https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2018/06/2018-Commonwealth-SPF-Report-2017-FINAL-30_05_2018.pdf.
 - Ward TM, Grammer GL, Ivey AR, Smart JJ, and Keane JP 2018 'Spawning biomass of Jack Mackerel (*Trachurus declivis*) and Sardine (*Sardinops sagax*) between western Kangaroo Island, South Australia and south-western Tasmania', May 2018, Available at https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2018/06/2018-Spawning-Biomass-of-Jack-Mackerel-FINAL-04_06_2018.pdf.
- Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) annual fishery status reports for Commonwealth fisheries, Available at <http://www.agriculture.gov.au/abares>.
- Stewardson C, Andrews J, Ashby C, Haddon M, Hartmann K, Hone P, Horvat P, Mayfield S, Roelofs A, Sainsbury K, Saunders T, Stewart J, Stobutzki I, and Wise B (eds) 2016, *Status of Australian fish stocks reports 2016*, Fisheries Research and Development Corporation, Canberra ACT, Available at <http://fish.gov.au/>.

SECTION 2: DETAILED ANALYSIS OF THE COMMONWEALTH SMALL PELAGIC FISHERY AGAINST THE GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES (2ND EDITION)

Guidelines criteria	Comment
THE MANAGEMENT REGIME	
The management regime does not have to be a formal statutory fishery management plan as such, and may include non-statutory management arrangements or management policies and programs. The regime should:	
Be documented, publicly available and transparent.	<p>Meets</p> <p>The Commonwealth Small Pelagic Fishery (the fishery) is managed by the Australian Fisheries Management Authority (AFMA) in accordance with the Small Pelagic Fishery Management Plan 2009 (SPF Management Plan) made under the <i>Fisheries Management Act 1991</i> (Cth) and the Fisheries Management Regulations 1992 (Cth). The management arrangements are published on AFMA's website and includes an annual booklet as guidance for operators. The SPF Management Plan is also available on the Federal Register of Legislation website (see links under Notes).</p>
Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public.	<p>Meets</p> <p>The consultation process is mandated in Commonwealth legislation. Stakeholders provide comment via AFMA's website at http://www.afma.gov.au/about/consultations/, or through consultative committees described in the fishery's management arrangements booklet 2018–19 (see links under Notes).</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>AFMA engage with a number of fishery management committees in relation to managing the fishery, including the South East Management Advisory Committee (SE MAC), a scientific panel, stakeholder forums, and the Commonwealth Marine Mammal Working Group.</p>
Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured.	<p>Meets</p> <p>Fisheries legislation and regulations provide the broad statutory framework for managing the fishery, including defining the fishing area, compliance, penalties, and responsibilities for sustainable fishing. The SPF Management Plan describes the management requirements and procedures for daily operation of the fishery, and underpins the harvest strategy for the fishery. The SPF Harvest Strategy includes decision rules and reference points and principles to determine the total allowable commercial catch (TACC) and recommended biological catch (RBC).</p>
Be capable of controlling the level of harvest in the fishery using input and/or output controls.	<p>Meets</p> <p>A complex range of input and output control measures are described in the management plan, the harvest strategy, and the management arrangements booklet (see links under Notes). The harvest strategy provides the basis for setting the TACC and the RBC for each quota species. Monthly catch limits apply to each grid.</p> <p>Gear restrictions apply. Entry is limited with four vessels currently operating in the fishery – three in the purse seine sector and one in the mid-water trawl sector. Current legislation allows vessels under 130 metres to operate in Australian waters. Pair trawling is being trialled as an approved fishing method until October 2018, and is subject to conditions and a review. The AFMA Commission may approve additional fishing gear and methods in the future</p>

	following appropriate scientific advice. Concession holders must hold transferable statutory fishing rights (SFR), and an authority (licences or permits) to operate a fishing vessel in the fishery. Quota is attached to SFRs for each target species within each management zone. A maximum of 10 per cent of unused quota may be carried forward to the following fishing season. Conditions, including target species, area of operation, and fishing method and gear are attached to SFRs. Mandatory catch reports include target, byproduct, and bycatch species, and interactions with threatened, endangered and protected species (TEPS).
Contain the means of enforcing critical aspects of the management arrangements.	Meets AFMA has developed and implemented appropriate enforcement measures that are supported by legislation. The fishery management plan identifies monitoring programs including logbook and catch disposal records, on-board observer program that have the capacity to provide regular and up-to-date information. In addition, Catch limits are monitored through monthly reporting of daily catches, vessel monitoring systems, randomly assigned on-board observers, satellite tracking, and mandatory e-monitoring for mid-water trawl vessels.
Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria.	Meets AFMA regularly review the different aspects of the management arrangements. Key performance measures and decision rules are identified in the management plan and harvest strategy. AFMA has reviewed the fishery management plan, and harvest strategy. The TACC is reviewed annually, and is informed by regular scientific and economic advice from the Scientific Panel.
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.	Meets AFMA collect and analyse logbook data (catch and effort), vessel locations (via e-monitoring, vessel management systems (VMS), and satellite tracking), and independent monitoring (e.g. on-board observer data) for each management area, and factor these into management arrangements. Measures to mitigate impacts include a dolphin strategy, bycatch and discard work plan, and mandatory vessel management plans (VMP). AFMA's <u>ecological risk management (ERM) framework</u> is used when developing or reviewing the fishery's management arrangements. See links under Notes for further information regarding AFMA's legislative requirements and risk management procedures.
Requires compliance with relevant threat abatement plans, recovery plans, the National Policy on Fisheries Bycatch, and bycatch action strategies developed under the policy.	Partially meets The management arrangements appear to be compliant with a number of Australian Government threat abatement plans, recovery plans, and policies regarding impacts to stocks, bycatch and the marine environment. It is important that AFMA maintain, and where necessary, develop strategies to ensure continued compliance with the <u>national fisheries bycatch</u> (DAWR 2017), <u>national harvest strategy policy</u> (DAFF 2007), threat abatement plan for the <u>impacts of marine debris</u> , the recovery plans for the <u>Blue Whale</u> , the <u>Southern Right Whale</u> , <u>albatrosses and giant petrels</u> , the <u>White Shark</u> (<i>Carcharodon carcharias</i>), and the <u>Grey Nurse Shark</u> (<i>Carcharias taurus</i>), and the conservation advice for the <u>Whale Shark</u> (<i>Rhincodon typus</i>) (CofA 2018). The <u>Giant Kelp Marine Forests of South-east Australia threatened ecological community</u> (Listed endangered) is prone to impacts from commercial fishing. There is no evidence regarding compliance with the approved Conservation Advice for this community (CofA 2012a).
PRINCIPLE 1 - A fishery must be conducted in a manner that does not lead to over-fishing, or for those stocks that are over-fished, the fishery must be conducted such that there is a high degree of probability the stock(s) will recover.	

Objective 1 - The fishery shall be conducted at catch levels that maintain ecologically viable stock levels at an agreed point or range, with acceptable levels of probability.	
Information requirements	
1.1.1 There is a reliable information collection system in place appropriate to the scale of the fishery. The level of data collection should be based upon an appropriate mix of fishery independent and dependent research and monitoring.	<p>Meets</p> <p>The fishery targets Jack Mackerel (<i>Trachurus declivis</i>, <i>T. murphyi</i>), Blue Mackerel (<i>Scomber australasicus</i>), Redbait (<i>Emmelichthys nitidus</i>), and Australian sardine (<i>Sardinops sagax</i>).</p> <p>Operators are required to record daily catch and effort data in logbooks and provide monthly reports to AFMA. Logbook reports include species-specific data, locations fished each month, and vessel information. AFMA is able to verify catch and effort via on-board observers, electronic monitoring and satellite tracking. Data collection and vessel monitoring procedures help to ensure that fishing operations align with management arrangements, specifically that total catches do not exceed the amounts permitted in each fishing zone or sub-zone.</p>
Assessment	
1.1.2 There is a robust assessment of the dynamics and status of the species/fishery and periodic review of the process and the data collected. Assessment should include a process to identify any reduction in biological diversity and /or reproductive capacity. Review should take place at regular intervals but at least every three years.	<p>Meets</p> <p>All target stocks are considered to be sustainably fished (see ABARES Fishery Status Reports and FRDC's Status of Australian Fish Stocks Report 2016 under Notes). This information is reflected in a number of independent stock assessments for key species stocks (see Punt et al. 2016; Ward et al. 2015; Ward et al. 2016; Ward and Grammer 2018; Ward et al. 2018). AFMA's research program guides species stock assessments.</p> <p>The SPF Harvest Strategy 2017 underpins the annual TACC and RBC for all target species stocks. Advice is also available through the scientific panel.</p> <p>Since the 2015 assessment, this fishery has been the focus of a Senate inquiry regarding the potential for over-fishing and impacts to the marine environment. These and other issues were also addressed by an expert scientific panel (Expert Panel 2015).</p>
1.1.3 The distribution and spatial structure of the stock(s) has been established and factored into management responses.	<p>Meets</p> <p>There is adequate information regarding the distribution and structure of target species (see Bulman et al. 2015; Stewardson et al. 2016; and Ward and Grammer 2018). Adequate management arrangements are in place, including managing fished stocks according to weight per grid reference.</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>Meets</p> <p>Commercial fishing data is collected in relation to catches for target, by-product, bycatch, and threatened, ecological, and protected species. This information is analysed and factored into management arrangements, including reviews for any aspect of the management arrangements including the harvest strategy, bycatch and discard work plan, and strategies for TEPS. Stock assessments include biological data analysis (for example, Daily Egg Production Method surveys and spawning biomass).</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>Meets</p> <p>Regular stock assessments provide adequate information to determine the potential productivity of the fished stocks. AFMA is guided by a scientific panel and harvest strategy when setting the annual TACC for the fishery.</p>

Management responses	
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.	Meets Reference points and decision rules are detailed in the harvest strategy (see AFMA 2008; Smith et al. 2015).
1.1.7 There are management strategies in place capable of controlling the level of take.	Meets Management arrangements include a harvest strategy, annual TACC, limited entry, restrictions on methods and gear used, and area management. In addition, it is mandatory for all trawl vessels to have a vessel management plan, which specifies any approved excluder devices and trigger limits in place for interactions with TEPS.
1.1.8 Fishing is conducted in a manner that does not threaten stocks of by-product species.	Partially meets AFMA's application for reassessment summarises key by-product species landed in this fishery, including Barracouta (<i>Thyrsites atun</i>), Skipjack Tuna (<i>Katsuwonus pelamis</i>), Spotted Warehou (<i>Seriolella punctata</i>), Redfish (<i>Centroberyx affinis</i>), Gould's Squid (<i>Nototodarus gouldi</i>), Maray (<i>Etrumeus jacksoniensis</i>), Ocean Jacket (<i>Nelusetta ayraud</i>), Reef Ocean Perch (<i>Helicolenus percoides</i>), Yellowtail Scad (<i>Trachurus novaezelandiae</i>), Australian Anchovy (<i>Engraulis australis</i>), Eastern Orange Perch (<i>Lepidoperca pulchella</i>), and Gemfish (<i>Rexea solandri</i>). Stocks for these species are considered sustainable. Gemfish occurs in two distinct stocks (western and eastern). The eastern Gemfish (<i>Rexea solandri</i>) stocks is listed as conservation dependent under the EPBC Act, and classified as overfished in the Status of Australian Fish Stocks Report 2016 (Moore and Liggins 2016; Stewardson et al. 2016). AFMA has developed a stock rebuilding strategy, which aims to recover stocks by 2027.
(Guidelines 1.1.1 to 1.1.7 should be applied to byproduct species to an appropriate level)	
1.1.9 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	Meets The fishery has a high chance of achieving the objective to maintain stocks of most target species at ecologically viable levels. AFMA is committed to rebuilding Gemfish stocks within this time period and has implemented management strategies to meet its objective.
If overfished, go to Objective 2: If not overfished, go to PRINCIPLE 2:	
Objective 2 - Where the fished stock(s) are below a defined reference point, the fishery will be managed to promote recovery to ecologically viable stock levels within nominated timeframes.	
Management responses	
1.2.1 A precautionary recovery strategy is in place specifying management actions, or staged management responses, which are linked to reference points. The recovery strategy should apply until the stock recovers,	Meets All primary target species are sustainably fished. AFMA has developed a stock rebuilding strategy for eastern Gemfish (byproduct) (see AFMA 2015).

and should aim for recovery within a specific time period appropriate to the biology of the stock.	
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.	Meets Management arrangements to help rebuild eastern Gemfish stocks by 2027 include effort restrictions (through limited entry), incidental catch TACC limit (reviewed annually), trawl gear selectivity (minimum mesh size to reduce juvenile catches), fishery closures, trip limits, compulsory pre-reporting during Gemfish spawning, research (including stock assessments), monitoring (e.g. on-board observers), and ongoing engagement with other commercial and recreational fisheries (AFMA 2015).
PRINCIPLE 2 - Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.	
Objective 1 - The fishery is conducted in a manner that does not threaten bycatch species.	
Information requirements	
2.1.1 Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.	Meets A number of species have been identified as vulnerable to capture in this fishery with the majority of interactions occurring in the midwater trawl sector. Management arrangements include mandatory reporting of bycatch species, independent on-board observers, and vessel monitoring systems. Logbooks allow for species-specific recording. The Commonwealth Fisheries Marine Mammal Working Group provides advice to AFMA regarding identification and mitigation measures.
Assessment	
2.1.2 There is a risk analysis of the bycatch with respect to its vulnerability to fishing.	Meets The ERM framework was developed to mitigate risks associated with fishing. AFMA, in collaboration with CSIRO, has undertaken ERAs for the mid-water trawl sector (AFMA 2010a) and purse seine sector (AFMA 2010b). AFMA (2010b) identified 29 priority species as high risk in the purse seine sector. However, no TEPS interactions were reported in this sector since the most recent assessment for this fishery. High risk species in the trawl sector include seabirds, seals, dolphins, and dogfish shark (Lyle and Willcox 2008; Zhou et al. 2009; AFMA 2010b). Zhou et al. (2009) found fishing intensity imposed a low risk to all non-target species in this fishery. The purse seine sector in particular, has low levels of bycatch. See Notes above for further information regarding risk assessments.
Management responses	
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.	Partially meets AFMA has implemented a number of measures to mitigate bycatch in this fishery including on-board observers, VMS, and bycatch reduction devices. Mitigation strategies are regularly reviewed and updated to ensure ongoing protection for high risk non-target species. Given the higher risk for bycatch in the trawl sector, AFMA has applied more stringent conditions on fishing operations. For example, it is mandatory for all mid-water trawl vessels to have an AFMA-approved vessel management plan (VMP), a dolphin management plan, and to use seal excluder devices (SED). Operators must comply with the SPF bycatch and discarding work plan, and dolphin strategy (see links under Notes). Management measures are also supported by an industry code of conduct for midwater trawl

	vessels, which includes guidelines for setting of gear within 10 km of dolphin sightings. Despite the strong measures in place, the fishery still reports a number of interactions.
2.1.4 An indicator group of bycatch species is monitored.	Meets AFMA's application for reassessment indicates bycatch is less than 2 per cent of the total catch for this fishery. Therefore, no specific indicator group of bycatch is being monitored. However, it is important that AFMA consider the cumulative impacts regarding those species that are discarded in high numbers.
2.1.5 There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.	Meets AFMA has developed strategies to mitigate interactions with high risk species including dolphins, seals, seabirds and dogfish sharks. These strategies include specific measures to mitigate impacts, and are supported by ongoing risk assessments, and requirements under VMS (see Notes for further information).
2.1.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	Partially meets The fishery has a medium chance of meeting the objective to conduct the fishery in a manner that does not threaten bycatch species. Given the non-selective fishing methods used and the high numbers of discards in this fishery, there are obvious challenges in meeting the objective. However, AFMA is committed to mitigating bycatch by developing, and continual improvements to, bycatch mitigation strategies.
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.	Meets AFMA has identified a number of TEP species with high risk of interactions in this fishery. Information regarding TEPS interactions is collected from logbooks (catch and effort data), vessel locations via e-monitoring, VMS, and independent observations (e.g. on-board observer data). The ERM framework considers the impacts of fishing to the broader marine environment.
Assessments	
2.2.2 There is an assessment of the impact of the fishery on endangered, threatened or protected species.	Meets ERAs are guided by AFMA's <u>ERM framework</u> . ERAs have been conducted for the midwater trawl (AFMA 2010b) and the purse seine sector (AFMA 2010a). AFMA is committed to mitigating impacts to TEP species under its bycatch reduction work plan.
2.2.3 There is an assessment of the impact of the fishery on threatened ecological communities.	Meets The Giant Kelp Forests of South-east Australia is known to occur within the area in which the fishery operates, the conservation advice for the TEC does not identify commercial fishing. While the risk assessment does not identify impacts to TECs, the broader marine environment is assessed under the ERM framework.
Management responses	

2.2.4 There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.	Meets AFMA has developed <u>mitigation strategies</u> to avoid interactions and to minimise impacts on high risk TEP species. Measures include a <u>dolphin mitigation strategy</u> and bycatch and discard work plan for this fishery (see Notes for further links). In addition, all trawl vessels are required to have a dolphin management plan and vessel management plan. In addition, AFMA undertake reviews and update these strategies as required.
2.2.5 There are measures in place to avoid impact on threatened ecological communities.	Not applicable There is no assessment for impacts on TECs. However, the conservation advice for the Giant Kelp Forests of South East Australia does not identify commercial fishing. While AFMA does not have a strategy to avoid impacts on TECs, fishing operators are unlikely to operate in areas where this TEC occurs (CofA 2012b).
2.2.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	Meets The fishery has a medium to high chance in meeting the objective to conduct fishing in a manner that does not impact TEP species. Key challenges include minimising impacts to seals and dolphins, which are at a higher risk because they are known to forage in or around nets. Seabirds are also at risk. However, AFMA has shown a commitment to mitigating bycatch by reviewing and continually improving, bycatch mitigation strategies.
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.	Partially meets ERA's for the purse seine (AFMA 2010a) and trawl sectors (AFMA 2010b) consider the gear type used, species ecology, and current mitigation practices in place. However, there is very little information regarding data collection methods to assess the fishery's impact on the ecosystem and environment.
Assessment	
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. 1. Impacts on ecological communities • Benthic communities • Ecologically related, associated or dependent species • Water column communities 2. Impacts on food chains • Structure • Productivity/flows 3. Impacts on the physical environment	Meets AFMA's ERM framework considers impacts on the broader marine environment, and food webs (see links for risk assessments under Notes). Small pelagic species are generally recognised as key prey species in the pelagic food web. However, ecosystem modelling studies indicate that the target species are not as influential in southern Australian waters in comparison to small pelagic species in other more productive, global upwelling systems that support much larger biomasses of similar species. In 2015, AFMA facilitated a review of the SPF harvest strategy. Findings from that review indicated exploitation rates (at that time) were unlikely to cause adverse environmental impacts to the broader ecosystem and that there was an adequate 'ecological allocation to predators and the broader ecosystem' (Expert Panel 2015). Exploitation rates had increased between the 2014–15 and 2016–17 fishing seasons while a factory freezer trawler operated in the fishery. However, the factory freezer trawler no longer operates in the fishery, which has led to a decline in catches. Research into the ecosystem role of the target species in the Small Pelagic Fishery is taken into consideration in the fishery's harvest strategy. For species where stock assessments are not performed, catch-and-effort data and catch age structure are used to determine a precautionary recommended biological catch.

<ul style="list-style-type: none"> • Physical habitat • Water quality 	
Management responses	
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.	Meets Existing management arrangements are designed to minimise significant impacts to the marine ecosystem described above. Management measures are guided by ERAs for the purse seine sector (AFMA 2010a) and mid-water trawl sector (AFMA 2010b). ERAs are based on high risk species.
2.3.4 There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a predetermined level, or where action is indicated by application of the precautionary approach.	Meets Although there are no specific ecosystem indicators, the harvest strategy for the fishery includes a range of decision rules designed to initiate further analysis and assessment. Fishery performance under the strategy is also regularly assessed.
2.3.5 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.	Meets The management regime has a medium to high chance to conduct fishing operations in a manner that minimises the impact on the broader ecosystem.

SECTION 3: ASSESSMENT OF THE COMMONWEALTH SMALL PELAGIC 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 in which the fishery operates intersects with the South-west Marine Region and the Temperate East Marine Region.</p> <p>The Marine Bioregional Plan for the <i>South-west Marine</i> Region identifies 16 key ecological features present in the area of the fishery, including Kangaroo Island Pool, canyons and adjacent shelf break, and Eyre Peninsula upwelling's, and small pelagic fishes. Small pelagic fishes are considered important for ecological functioning and integrity, and are also prone to over-fishing without adequate management. Pressures of potential concern to these key ecological features include the extraction of living resources and bycatch by commercial fisheries.</p> <p>The Marine Bioregional Plan for the <i>Temperate East Marine</i> Region identifies eight key ecological features present in the area of the fishery, including the Tasman front and eddy field, and the Tasmanid seamount chain. Identified conservation values of regional priority potentially relevant to the fishery include grey nurse shark, and foraging seabirds. Relevant pressures of regional concern include bycatch and extraction of living resources.</p> <p>However, there is no evidence to suggest any systematic change to species diversity or richness caused by this fishery, indicating fishing effort is not having a material impact on the food chain or trophic structure. Given the management arrangements in place including measures to mitigate impacts to the wider marine environment, impacts to key ecological features is considered low (see CofA 2012b).</p>

Part 13 – Species and communities

Accreditable plan, regime or policy (Division 1, Division 2, Division 3, Division 4)	Comment
<p>s. 208A (1) (a-e) , s.222A (1) (a-e), s.245 (1) (a-e), s.265 (1) (a-e)</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 fishery is managed by AFMA in accordance with the Small Pelagic Fishery Management Plan 2009 and Fisheries Management Regulation 1992 (Cth) 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
(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	<p>Meets</p> <p>Yes, there are specific measures in place to mitigate the risk to listed threatened species, which have been demonstrated to be effective.</p>

species) are not killed or injured as a result of the fishing?	<p>The management plan for the fishery was accredited in October 2015. Since then, AFMA advised the Department of minor amendments to the management arrangements for the fishery as they were implemented. While the amendments do not significantly affect the sustainability of the fishery, re-accreditation is required under Part 13 of the EPBC Act. The previous Part 13 conditions will continue to be implemented (see section 4).</p> <p>Given the management arrangements in place in the fishery, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of members of listed threatened species.</p>
(g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species?	<p>Meets</p> <p>There were interactions reported since the most recent assessment in October 2015. AFMA informs the Department of any interactions with listed threatened species as they are notified. AFMA produces quarterly TEPS interaction reports (see links under Notes). These reports indicate a number of interactions have occurred since the 2015 assessment for this fishery, including 10 Shy Albatross (<i>Thalassarche cauta cauta</i>). All interactions occurred in the trawl sector. There were no reported interactions in the purse seine sector.</p> <p>AFMA has implemented mitigation measures to help minimise the impacts to listed threatened species, including an approved VMP for all trawling operations, and a seabird mitigation strategy. AFMA has also developed a bycatch mitigation work plan for the fishery.</p> <p>Given the current measures in place in the fishery, summarised above, the Department considers the current operation of the fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>
Division 2 Migratory species, Section 222A Minister may accredit plans or regimes	Comment
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing?	<p>Meets</p> <p>Yes, there are specific measures in place to mitigate the risk to listed migratory species, which has been demonstrated to be effective.</p> <p>The management plan for the fishery was accredited in October 2015. Since then, AFMA advised the Department of minor amendments to the management arrangements for the fishery as they were implemented. While the amendments do not significantly affect the sustainability of the fishery, re-accreditation is required under Part 13 of the EPBC Act. The previous Part 13 conditions will continue to be implemented (see section 4).</p> <p>Given the management arrangements in place in the fishery, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of members of listed migratory species.</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>Meets</p> <p>There were interactions reported since the most recent assessment in October 2015.</p>

	<p>AFMA informs the Department of any interactions with migratory species as they are notified. A number of interactions have occurred since the 2015 assessment for this fishery, including 58 Shortfin Mako (<i>Isurus oxyrinchus</i>), 10 Shy Albatross, and one Whale Shark (<i>Rhincodon typus</i>). All interactions occurred in the trawl sector. There were no reported interactions in the purse seine sector (see Protected species interaction reports under Notes).</p> <p>AFMA has implemented mitigation measures to help minimise the impacts to listed migratory species, including an approved VMP for all trawling operations. AFMA has also developed a bycatch mitigation work plan for the fishery.</p> <p>Given the current measures in place in the fishery, summarised above, 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, and the capture of any listed migratory species would be incidental to and not the purpose of the operation of the fishery.</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>Meets</p> <p>Yes, there are specific measures in place to mitigate the risk to cetaceans, which has been demonstrated to be effective. Given the management arrangements in place in this fishery, 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>There were interactions reported since the most recent assessment in October 2015.</p> <p>AFMA informs the Department of any interactions with cetacean species as they are notified. A number of interactions have occurred since the 2015 assessment for this fishery, including 16 dolphins. All animals were netted in the trawl sector. There were no reported interactions in the purse seine sector (see Protected species interaction reports under Notes).</p> <p>AFMA has implemented mitigation measures to help minimise the impacts to cetaceans, including an approved VMP and dolphin mitigation plan for all trawling operations. AFMA has also developed a bycatch mitigation work plan, and a dolphin management strategy for the fishery. The Commonwealth Fisheries Marine Mammal Working Group provide advice to AFMA in relation to mitigating impacts to dolphin species.</p> <p>Given the current measures in place in the fishery, summarised above, the Department considers the current operation of the fishery is not likely to adversely affect the conservation status of a species of cetacean or a population of that species.</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	Meets

marine species are not killed or injured as a result of the fishing?	<p>Yes, there are specific measures in place to mitigate the risk to listed marine species, which has been demonstrated to be effective.</p> <p>Given the management arrangements in place in this fishery, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of listed marine species and the capture of any listed marine species 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 listed marine species or a population of that species?	<p>Meets</p> <p>Yes, there were interactions reported since the most recent assessment in October 2015. AFMA informs the Department of any interactions with listed marine species as they are notified. A number of interactions have occurred since the 2015 assessment for this fishery, including 60 Australian Fur Seals, 23 New Zealand Fur Seals, and 10 Shy Albatross. All interactions occurred in the trawl sector. There were no reported interactions in the purse seine sector (see Protected species interaction reports under Notes).</p> <p>While there are interactions with listed marine species, AFMA has implemented mitigation measures to help minimise the impacts to listed marine species, including a mandatory requirement for all trawl vessels to have an approved VMP, and seal excluder devices. AFMA is committed to reviewing and improving existing measures, and has developed a bycatch mitigation work plan, and a dolphin management strategy for the fishery.</p> <p>Given the management arrangements in place in this fishery, the Department considers the current operation of the fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species in the short-term.</p>
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> <ul style="list-style-type: none"> (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. <p>In such a case, the instrument of accreditation is to specify the period, circumstances or condition.</p>	<p>Meets</p> <p>The management plan for the fishery was accredited in October 2015. Since then, AFMA advised the Department of minor amendments to the management arrangements for the fishery as they were implemented. While the amendments do not significantly affect the sustainability of the fishery, re-accreditation is required under Part 13 of the EPBC Act. The previous Part 13 conditions will continue to be implemented (see section 4).</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.	Not applicable.

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:</p> <ul style="list-style-type: none"> • the fishery will not harvest any 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 five years, and • the Environment Protection and Biodiversity Conservation Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.
Section 303 CG 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>Not applicable</p> <p>The fishery does not harvest species listed under CITES.</p>
<ul style="list-style-type: none"> (ii) the recovery in nature of any taxon to which the specimen belongs; or 	<p>Not applicable</p> <p>The fishery does not harvest species listed under CITES.</p>
<ul style="list-style-type: none"> (iii) any relevant ecosystem (for example, detriment to habitat or biodiversity); and 	<p>Not applicable</p> <p>The fishery does not harvest species listed under CITES.</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> <ul style="list-style-type: none"> (a) doing any of the following: <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; 	<p>Meets</p> <p>The Department recommends that specimens derived from species harvested in the Commonwealth Small Pelagic Fishery as defined in the Small Pelagic Fishery Management Plan 2009 made under the Fisheries Management Act 1991 (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

<p>(iv) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or</p> <p>(b) correcting an inaccuracy or updating the name of a species.</p>	<ul style="list-style-type: none"> 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 until 21 October 2023.</p>
<p>(1A) In deciding to amend the LENS, the Minister must rely primarily on outcomes of an assessment under Part 10, Divisions 1 or 2</p>	<p>Meets</p> <p>The fishery was assessed under Part 10 of the EPBC Act in January 2010. In conducting that assessment, the Department considered that actions taken in the fishery would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area. Since that assessment, AFMA has implemented measures to improve the management of the fishery, including a revised harvest strategy, new fishing gear and methods, dolphin mitigation strategy, vessel management plans, and revised area management arrangements. Consequently, the Small Pelagic Fishery Management Plan 2009 was accredited under the EPBC Act.</p>
<p>(1C) The above does not limit matters that may be considered when deciding to amend LENS.</p>	<p>Meets</p> <p>The Department 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> <p>(a) other Minister or Ministers as appropriate; and</p> <p>(b) other Minister or Ministers of each State and self-governing Territory as appropriate; and</p> <p>(c) other persons and organisations as appropriate.</p>	<p>Meets</p> <p>The submission from AFMA was made available on the Department's website from 15 August 2018 until 12 September 2018.</p> <p>One public comment was received on the submission. The public comment expressed concerns about AFMA's management of target stocks, a perceived lack of sufficient independent observer coverage of fishing operations, a lack of consideration for recreational fisheries, and the lack of opportunity for stakeholder input into the management of the fishery. The Department's assessment has considered the public comments received on the submission.</p>

Part 16 – Precautionary principle and other considerations in making decisions

Section 391 Minister must consider precautionary principle in making decisions	Comment
<p>(1) Minister must take account of the precautionary principle in making a decision, to the extent that the decision is consistent with other provisions under this Act.</p> <p>(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.</p>	<p>Meets</p> <p>The Department has accounted for the precautionary principle in the preparation of its advice in relation to a decision under section 303DC and section 303FN. Recognising the potential risks to biodiversity from fishing operations identified in the ERAs for the fishery (see link under Notes), AFMA has implemented precautionary management measures which reduce the risks of adverse impacts (described above). The management plan and harvest strategy describe the</p>

	performance indicators and trigger points against which the performance of the fishery is evaluated.
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SECTION 4: COMMONWEALTH SMALL PELAGIC FISHERY – SUMMARY OF ISSUES AND RECOMMENDATIONS, OCTOBER 2018

Issue	Recommendations
<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of the Environment and Energy needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, EPBC Act protected species or the ecosystem.</p>	<p>Recommendation 1:</p> <p>Operation of the Commonwealth Small Pelagic Fishery will be carried out in accordance with the Small Pelagic Fishery Management Plan in force under the <i>Fisheries Management Act 1991</i> (Cth).</p> <p>Recommendation 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 Small Pelagic 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 reports be produced and presented to the Department annually in order for the performance of the fishery and progress in implementing the recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration. Annual reports should follow Appendix B to the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' and include a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with EPBC Act protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing the Department's recommendations. Electronic copies of the guidelines are available from the Department's website at http://www.environment.gov.au/resource/guidelines-ecologically-sustainable-management-fisheries.</p>	<p>Recommendation 3:</p> <p>The Australian Fisheries Management Authority to produce and present reports to the Department of the Environment and Energy annually as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p>
<p><u>Interactions with protected species</u></p> <p>It is important that AFMA continue to monitor fishing operations for interactions with protected species, and to review existing management strategies, or implement new mitigation measures, as required. A key challenge for this fishery is to reduce the numbers of interactions.</p> <p>The fishery continues to have interactions with protected species, including mortalities of Albatross (<i>Thalassarche cauta cauta</i>), Shortfin Mako (<i>Isurus oxyrinchus</i>), dolphins, and seals in the mid water trawl sector. Dolphins and seals are at higher risk of capture because they tend to forage in and around</p>	<p>Part 13 Condition A</p> <p>Prior to fishing, mid-water trawl vessels must have in place effective mitigation approaches and devices to minimise interactions with dolphins, seals and seabirds.</p>

Issue	Recommendations
<p>trawl nets. Given this foraging behaviour, and the non-selective fishing methods in use, interactions are inevitable.</p> <p>There was a rise in reported interactions during the period in which the Geelong Star operated in the fishery. During that time, the Geelong Star had 100 per cent independent observer coverage of its fishing operations. While the Geelong Star no longer operates in Australian waters, AFMA continues to implement similarly stringent monitoring procedures for all trawl vessels operating in this fishery. Therefore, the high numbers of interactions may be a result of ongoing monitoring.</p> <p>The Department acknowledges AFMA's commitment to developing and reviewing management measures to minimise protected species impacts. including:</p> <ul style="list-style-type: none"> • AFMA's bycatch strategy: Mitigating protected species interactions and general bycatch, • Small Pelagic Fishery bycatch and discarding work plan, and • Small Pelagic Fishery dolphin mitigation strategy, <p>It is mandatory for all trawling operations to have an approved vessel management plan and a dolphin mitigation plan prior to fishing. The dolphin mitigation strategy requires a management response for every dolphin mortality and has escalating responses for increasing numbers of interactions. If the trigger levels are exceeded in consecutive review periods individual fishers will be excluded from half of the fishery and subsequently the whole fishery for six months. It is now mandatory for all trawl vessels to have a dolphin mitigation plan prior to each fishing trip.</p> <p>Vessel management plans (VMP) are mandatory for all mid-water trawl and mid-water pair trawl vessels. A VMP must be approved by AFMA before the vessel is able to operate. VMPs detail a vessel's daily operational procedures, reporting requirements, and protected species mitigation measures. The Small Pelagic Fishery management arrangements booklet summarises the legislative and operational requirements for operators in the fishery, including information on best practice handling guidelines for sharks.</p> <p>The Department considers it important that AFMA continue to ensure that mid water trawl vessels operating in the fishery have effective mitigation devices to minimise the risk of protected species interactions. The Department also considers it important that AFMA continue to deploy independent observers on mid water trawl vessels for the first 10 trips and to deploy additional observer coverage as appropriate following analysis of interaction reports and scientific information.</p>	<p>Part 13 Condition B</p> <p>That at least one observer be deployed on each new mid-water trawl vessel for the first 10 fishing trips, with additional observer coverage or other monitoring implemented as appropriate, following scientific assessment of the Small Pelagic Fishery.</p>

REFERENCES

- (AFMA) Australian Fisheries Management Authority 2010a 'Ecological risk management: Report for the purse seine sector of the Small Pelagic Fishery', March 2010, Australian Fisheries Management Authority, Canberra ACT, Available at <http://www.afma.gov.au/wp-content/uploads/2014/11/Ecological-Risk-Management-SPF-purse-seine-March-2010.pdf>.
- (AFMA) Australian Fisheries Management Authority 2010b 'Residual risk assessment of the level 2 ecological risk assessment species results: Report for the Small Pelagic Fishery – midwater trawl sector', March 2010, Australian Fisheries Management Authority, Canberra AC, Available at <https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2014/11/Ecological-Risk-Management-SPF-midwater-trawl-March-2010.pdf>.
- (AFMA) Australian Fisheries Management Authority 2015 'Eastern Gemfish (*Rexea solandri*) stock rebuilding strategy', Australian Fisheries Management Authority, Canberra ACT, Available at <http://www.afma.gov.au/eastern-gemfish-stock-rebuilding-strategy-2015/>.
- (CofA) Commonwealth of Australia 2012a 'Approved Conservation Advice for Giant Kelp Marine Forests of South East Australia', Department of Sustainability, Environment, Water, Population and Communities, Canberra ACT, Available at <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/107-conservation-advice.pdf>.
- (CofA) Commonwealth of Australia 2012b 'Marine bioregional plans', Department of Sustainability, Environment, Water, Population and Communities, Canberra ACT, Available at <http://www.environment.gov.au/marine/marine-bioregional-plans>.
- (CofA) Commonwealth of Australia 2018 'Threatened species and ecological communities', Department of the Environment and Energy, Canberra ACT, Available at <http://www.environment.gov.au/biodiversity/threatened>.
- (DAFF) Department of Agriculture, Fisheries and Forestry 2007 'Commonwealth fisheries harvest strategy policy and guidelines', Canberra ACT, Updated: 05 May 2017, Available at http://www.agriculture.gov.au/fisheries/domestic/harvest_strategy_policy.
- (DA&WR) Department of Agriculture and Water Resources 2017 'Commonwealth fisheries bycatch policy: Draft for consultation', March 2017, Department of Agriculture and Water Resources, Canberra ACT, Available at <http://www.agriculture.gov.au/fisheries/environment/bycatch/review>.
- Knuckey I, Bergh M, Bodsworth A, Koopman M, and Gaylard J 2008 'Review of the draft harvest strategy for the Commonwealth Small Pelagic Fishery', Available at <https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2014/02/SPF-harvest-strategy-review-2008.pdf>.
- Lyle JM and Willcox ST 2008 'Dolphin and seal interactions with mid-water trawling in the Commonwealth Small Pelagic Fishery, including an assessment of bycatch mitigation', February 2008, Final Report Project R05/0996, Tasmanian Aquaculture and Fisheries Institute, Tasmania, Available at <http://www.afma.gov.au/wp-content/uploads/2014/02/Dolphin-and-seal-interactions-with-mid-water-trawling-in-the-Commonwealth-Small-Pelagic-Fishery-including-an-assessment-of-bycatch-mitigation-PDF-1.18-MB.pdf>.
- Moore A, and Liggins G 2016 'Gemfish (*Rexea solandri*)', In: Stewardson C, Andrews J, Ashby C, Haddon M, Hartmann K, Hone P, Horvat P, Mayfield S, Roelofs A, Sainsbury K, Saunders T, Stewart J, Stobutzki I, and Wise B (eds) 2016, Status of Australian fish stocks reports 2016, Fisheries Research and Development Corporation, Canberra ACT, Available at <http://www.fish.gov.au/report/28-Gemfish-2016>.
- Smith ADM, Ward TM, Hurtado F, Klaer N, Fulton E, and Punt AE 2015 'Review and update of harvest strategy settings for the Commonwealth Small Pelagic Fishery: Single species and ecosystem considerations', January 2015 – <http://www.afma.gov.au/wp-content/uploads/2014/02/CSIRO-report-SPF-harvest-strategy-settings-Jan-2015.pdf>.
- Ward T, Moore A, Norriss J, Lyle J, and Stewart J 2016 'Blue Mackerel (*Scomber australasicus*)', In: Stewardson C, Andrews J, Ashby C, Haddon M, Hartmann K, Hone P, Horvat P, Mayfield S, Roelofs A, Sainsbury K, Saunders T, Stewart J, Stobutzki I, and Wise B (eds) 2016, Status of Australian fish stocks reports 2016, Fisheries Research and

Development Corporation, Canberra ACT, Available at <http://fish.gov.au/report/14-Blue-Mackerel-2016>.

Zhou S, Fuller M, and Smith T 2009 'Rapid quantitative risk assessment for fish species in seven Commonwealth fisheries', April 2009, Australian Fisheries Management Authority, Canberra ACT, Available at <https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2014/11/Sustainability-Assessment-for-Fishing-Effect-SPF-April-2009.pdf>.