



Australian Government

Department of Agriculture, Water and the Environment

**Assessment of the
AUSTRALIAN FISHING IN EXPLORATORY FISHERIES
IN EAST ANTARCTIC FISHERY, CCAMLR DIVISIONS
58.4.1 AND 58.4.2**

November 2020

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Disclaimer

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

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On 22 July 2020, the Australia Fisheries Management Authority submitted an application for the Australian vessels in the East Antarctica (Statistical Division 58.4.1, 58.4.2) of the Commission for the Conservation of Antarctic Marine Living Resources¹ (CCAMLR) Convention Area (the fishery) to the Department of Agriculture, Water and the Environment for assessment under the provisions of Part 13 (protected species) and Part 13A (wildlife trade) of the EPBC Act, against the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'. A public comment period was open from 24 July - 01 September 2020.

[illegible]

¹ Antarctic marine living resources means the populations of fin fish, molluscs, crustaceans and all other species of living organisms, including birds, found south of the Antarctic Convergence.

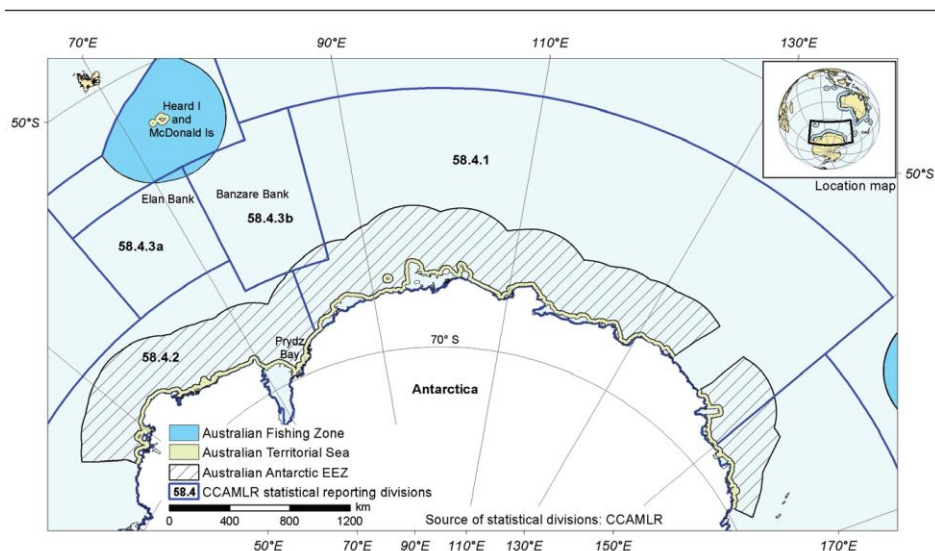


Figure 2. CCAMLR Divisions 58.4.1 and 58.4.2 (Source: [ABARES Fishery Status Report](#) 2019).

Fishery management arrangements

All CCAMLR fisheries are managed using the ecosystem-based and precautionary approach, and management objectives which balance 'conservation' and 'rational use' of living resources and maintain existing ecological relationships. The fisheries operate in a regulatory framework which recognises five types of fisheries that reflect the stage of development and the level of information available to make management decisions.

Management arrangements are defined in [conservation measures](#) and applied to Australian operations through conditions on fishing permits administered by AFMA under the *Fisheries Management Act 1991*.

Broadly, harvest controls in these fisheries include limited entry, gear restrictions, catch triggers and limits, spatial and temporal controls.

Catch limits in each fishery are agreed using decision rules that ensure the long-term sustainability of the fishery. These limits and the other operational aspects defined in the conservation measures determine when, where and how fisheries are conducted in order to manage the potential impacts on the ecosystem.

Catch limits are prescribed for toothfish ([CM 41-05](#) and [CM 41-11](#)), bycatch ([CM 33-03](#)) as well as vulnerable marine ecosystems ([CM 22-07](#)) in each of the two Divisions. Within each Division fishing is directed to occur over as large a geographic and bathymetric range as possible.

Research needs are prescribed in [CCAMLR conservation measures](#) and include general provisions for all species ([CM 21-02](#)), measures designed for toothfish ([CM 41-01](#)) and measures tailored to Divisions 58.4.1 ([CM 41-11](#)) and 58.4.2 ([CM 41-05](#)). Each fishery has a data collection plan, a research plan and a tagging program. These plans are used to set management arrangements for catch, effort and related biological, ecological and environmental data, including plans for directing fishing effort.

Management arrangements are considered precautionary and designed to improve understanding of the fisheries. There is regular monitoring, assessment and revision of management performance. Access to the fisheries is carefully managed by CCAMLR and its Members; this includes management of licensed fishers as well as IUU fishing.

Target stocks

The only target species for this fishery is the Antarctic Toothfish, *Dissostichus mawsoni*. Antarctic Toothfish are endemic to the seas around Antarctica. Another species of toothfish is

also caught in this area, the Patagonian Toothfish, *Dissostichus elonginoides*. Patagonian Toothfish are also counted towards target species quota.

No reliable and accepted integrated stock assessment is available for division 58.4.2 or 58.4.1. Fishing in the established research blocks is ongoing and is intended to provide data for future stock assessments. ([ABARES Fishery Status Report](#))

Annual stock estimates are robust, but data is limited; management is therefore precautionary by necessity.

Protected species and threatened ecological communities

Protected species interactions are monitored and managed by CCAMLR and AFMA and reported to the Department of the Environment in accordance with requirements of the EPBC Act. CCAMLR has developed risk frameworks for seabirds and marine mammals, and the CCAMLR Working Group on Fish Stock Assessment undertakes regular estimates for all Divisions.

Since the inception of Division 58.4.1 in 2005, when two southern giant petrels (*Macronectes giganteus*) and three sooty shearwaters (*Puffinus griseus*) were reported injured or killed, there have been no incidental mortalities of seabirds or marine mammals. Since the inception of Division 58.4.2 in 2003, there have been no observed incidental mortalities of seabirds, and only one reported mortality of a leopard seal (*Hydrurga leptonyx*). This occurred in 2005 ([58.4.2](#) and 58.4.1 Fishery Report 2020).

CCAMLR and AFMA require wildlife interaction reports to be completed and submitted within 24 hours of an interaction with a protected species. Each report must include a detailed response to each wildlife interaction, which must be implemented immediately by the fisher to minimise the likelihood of similar interactions. These reports are reviewed regularly by AFMA's Sub-Antarctic Resource Assessment Group, who advise AFMA on ways to further refine management arrangements.

Current measures in place to minimise risk to protected species and ecological communities include:

- Prohibition on offal discharge, and restrictions on bycatch release to avoid attracting and provisioning wildlife;
- Contingency arrangements for disposal of fish meal if the fish meal plant breaks down;
- Using integrated weight line, paired streamer lines, brickle curtains and seasonal closures to avoid seabirds attending baits;
- Minimising lighting on fishing vessels to reduce the risk of seabirds colliding with vessels;
- Prohibition on use of plastic packaging bands to secure bait boxes;
- Requirement that all plastic be burned, and the residue not discarded at sea;
- Prohibition on the dumping of oil, plastic, garbage, food waste, sewage and ash; and
- Restriction on the discharge of poultry products and brassicas to avoid the introduction of avian diseases and non-native plants.

Australia has a strong record of compliance with these requirements, which are reviewed and reported on annually by CCAMLR

Ecosystem impacts

Due to the harvesting method used in the CCAMLR East Antarctica Fishery (demersal longlines) impacts to the physical ecosystem are considered to be relatively low. However, to mitigate potential impacts, on potentially vulnerable marine ecosystems, such as sponge-dominated communities, cold water corals and seep and vent communities, CCAMLR applies a risk framework with regular risk assessments undertaken for all Divisions.

CCAMLR has developed means to identify and protect vulnerable marine ecosystems from the effects of fishing; these are reflected in conservation measures including [CM 22-05](#), [CM 22-06](#), [CM 22-07](#), [CM 22-08](#) and [CM 22-09](#) which cover:

- assessment of bottom fishing proposals by CCAMLR's Scientific Committee, and ongoing assessment of impacts;
- prohibition of fishing in depths shallower than 550 m;
- avoidance of registered vulnerable marine ecosystems;
- data collection to identify high risk areas; and
- catch limits and move-on provisions to avoid damage to high risk areas encountered when fishing.

All fishing is closely monitored and managed by CCAMLR and AFMA through a combination of daily shot-by-shot catch reports, active vessel satellite monitoring systems and information from the two independent onboard scientific observers, with 100% observer coverage.

Spatial closures and move-on provisions apply when interactions with vulnerable marine ecosystems reach defined limits. These limits are further divided within each Division to maximise the value of fishery data being collected and minimise any risk of localised impact.

Research and monitoring

Research needs are prescribed in [CM 41-01](#) (2019 -General measures for exploratory fisheries for *Dissostichus* spp. in the Convention area). The CM includes a data collection plan, a research plan and tagging program. Specific fish tagging rates are prescribed in the individual Conservation Measures.

The results of research are incorporated in the annual stock considerations, which are submitted to CCAMLR and peer reviewed by the CCAMLR Scientific Committee when assessing New and Exploratory fisheries. A description of research activities is provided in the individual fishery reports on the CCAMLR website.

Fishing activity is closely monitored by CCAMLR which notifies Contracting Parties such as AFMA when catches are likely to reach a limit. Concession holders must cease fishing in part or all of the fisheries if certain triggers are met.

There are strict monitoring and data collection requirements for participants in CCAMLR managed fisheries. All catch must be reported by the Vessel Master on a shot by shot basis, as well as by two scientific observers at least one of whom must be independent, who are present on all voyages. The Vessel Master must also operate Integrated Computerised Vessel Monitoring Systems (VMS) which provide information on the vessel's location and course, and notify AFMA prior to entering and exiting the fisheries, transshipping fish, persons or any other goods to limit the opportunity for IUU catch.

Conclusion

On this basis, the Department has determined that product taken in the CCAMLR East Antarctica 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 27 November 2025.

SECTION 1: ASSESSMENT SUMMARY

Guidelines assessment	Meets	Partially meets	Does not meet	Details
Management regime	9 of 9			<p>The management regime meets requirements.</p> <p>Arrangements are precautionary and are closely monitored and regulated by CCAMLR and the Australian Fisheries Management Authority (AFMA). Management is transparent and information is publicly accessible.</p>
Principle 1 (target stocks) * 2 are not applicable	6 of 11	3 of 11		<p>Target stocks are well managed although do not meet all the requirements under the Guidelines.</p> <p>Robust stock assessment and catch limits according to CCAMLR decision rules are yet to be determined. However, stock considerations and catch limits are precautionary, and considerably more robust than is typical of other new and exploratory fisheries. They are also consistent with Australian Government policy and are reviewed annually to account for new information.</p> <p>A research plan has been developed to improve future stock assessments and inform the necessary considerations of spatial structure, biomass and connectivity of toothfish populations. Environmental data will also be collected and contribute to models of toothfish habitat use, which inform spatial management approaches for toothfish, and the conservation of representative areas of benthic biodiversity. This will also help map the bathymetry of fishable areas, and improve understanding of the distribution, relative abundance, and life histories of bycatch species. CCAMLR expects to achieve these outcomes over the next five years.</p>
Principle 2 (bycatch and TEPS) * 2 are not applicable	7 of 12	3 of 12		<p>Risks to bycatch and protected species are well managed and meet requirements.</p> <p>CCAMLR includes an assessment of potential risk to bycatch and protected species and broader ecosystem impacts in developing its management arrangements. However, there has not yet been a formal ecological risk assessment undertaken for Australian activities in Divisions 58.4.1 and 58.4.2 and there is no plan to undertake one. All proposals for exploratory fishing include an assessment of potential impacts on vulnerable marine ecosystems. There also strict bycatch measures that apply to these areas including a three seabird rule if triggered would require a vessel to switch to night setting only.</p>

				Fishing in these zones is new and exploratory and management is therefore precautionary. Risk assessments performed for similar, nearby fisheries have not identified any species at high risk and risk mitigation measures recommended in these assessments are reflected in CCAMLR and Australia's management of Divisions 58.4.1 and 58.4.2.
Principle 2 (ecosystem impacts) 2.3.1-2.3.5	4 of 5	1 of 5		Ecological risk is well managed and meets requirements. As per Principle 2 (bycatch and TEPS) above.
EPBC requirements	Meets	Partially meets	Does not meet	Details
Part 10				No assessment of the CCAMLR Ross Sea Fishery has been carried out under Part 10 of the EPBC Act as the fishery is exploratory in nature and no plan of management has been made under the <i>Fisheries Management Act 1991 (Cth)</i>.
Part 12				There is no Marine Bioregional Plan for the South-east Marine Region in which the fishery operates. There is an accreditable regime in place for the CCAMLR Ross Sea Fishery which has demonstrated to be effective in mitigating the risk to protected species.
Part 13				Meets requirements subject to Part 13 conditions. There is an accreditable regime in place for the CCAMLR Ross Sea Fishery. The Ross Sea Fishery will be managed under the <i>Fisheries Management Act 1991</i> , <i>Fisheries Management Regulation 2019</i> , and the Management regime defined in CCAMLR Conservation Measures.
Part 13A				Meets requirements subject to Part 13A conditions. The management arrangements for the CCAMLR Ross Sea Fishery have been assessed as consistent with the general guidance provided in the objects of Part 13A. The fishery is not recommended to be an approved wildlife trade operation and the fishery does not harvest species listed under CITES.

Part 16				<p>Precautionary measures are considered to be in place to prevent serious or irreversible environmental damage being caused by this fishery</p> <p>Having regard to the annual monitoring of stocks against prescribed performance measures, and the precautionary management measures already in place to mitigate risks to protected species, 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 2: SUMMARY OF ISSUES REQUIRING CONDITIONS AND RECOMMENDATIONS

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 Agriculture, Water and the Environment (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 by-product, bycatch, EPBC Act protected species or the ecosystem.</p>	<p>Condition 1: The Australian Fisheries Management Authority (AFMA) to ensure that all relevant Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) conservation measures are implemented for the operation of Australian vessels in the CCAMLR Exploratory Fisheries in Statistical Divisions 58.4.1 and 58.4.2.</p> <p>Condition 2: AFMA must inform the Department of any intended material changes to the management arrangements for Australian operations in the CCAMLR Exploratory Fisheries 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 '<i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>' and include a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with EPBC Act protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing the Department's conditions 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>Condition 3: AFMA must produce and present reports to the Department annually as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p>
Issue	Recommendation

<p><u>Ecological risks of the effects of fishing</u></p> <p>The Department recognises that CCAMLR, the Australian Antarctic Division of the Department, and AFMA have a well-developed research and data collection program to improve understanding of the stock status and the environmental impact of the fisheries. Over time this program should provide greater certainty in the management of ecological risk.</p> <p>The Department also recognises the small scale of the fisheries, and the precautionary management arrangements and scientific rigour that has been adopted by CCAMLR and underpins their management.</p> <p>The Department acknowledges the investment required to undertake a full ecological risk assessment, and notes there can diminished value in pursuing such assessments where information is limited.</p>	<p>Recommendation 1: AFMA to continue to work collaboratively with relevant expertise, particularly the Australian Antarctic Division of the Department, to ensure Australian operations in the CCAMLR Exploratory Fisheries reflect best practice for mitigation of ecological risks.</p>
<p><u>Stock assessments</u></p> <p>The Department notes that there is no integrated stock assessment for CCAMLR Statistical Subarea 88.2 small-scale research units 882C to 882I. However, data collection is ongoing and is intended to provide data for future stock assessments (ABARES Fishery Status Report).</p> <p>It is important that all stocks are managed in a precautionary way. Stock assessments can help understand the extent to which stocks can sustain impacts from activities such as commercial fishing. The Department notes that management arrangements are still considered to be precautionary and conservative catch limits are set annually by CCAMLR and take into account advice from the CCAMLR Working Group on Fish Stock Assessment, and the CCAMLR Scientific Committee.</p> <p>The Department recommends that the CCAMLR undertake a stock assessment over the next five years for target species in the fishery</p>	<p>Recommendation 2: AFMA to continue to collect data to estimate population biomass and density of Antarctic Toothfish (<i>Dissostichus spp.</i>) in waters within the Statistical Divisions 58.4.1 and 58.4.2 to inform a stock assessment.</p>

Assessment history:

Information on previous assessments for the CCAMLR East Antarctica Fishery is available on the Department's website at [Australian export from New and Exploratory Fisheries in the CCAMLR Statistical Divisions 58.4.1 and 58.4.2.](#)

1st assessment finalised December 2014 – LENS- 4 Recommendations

Fishery reporting:

[Fishery Report: Dissostichus mawsoni in Division 58.4.1 Annual report](#) 27 July 2020

[Fishery Report: Dissostichus mawsoni in Division 58.4.2 Annual report](#) 27 July 2020

Key links:

Fishery information

- [Schedule of Conservation Measures in force in 2019/20](#)

Conservation Measures

- Conservation Measure [41-11](#): Limits on the exploratory fishery for *Dissostichus mawsoni* in Statistical Division 58.4.1 in the 2019/20 season
- Conservation Measure [41-05](#): Limits on the exploratory fishery for *Dissostichus mawsoni* in Statistical Division 58.4.2 in the 2019/20 season

Enforcing legislation

- [Environment Protection and Biodiversity Conservation Act 1999 \(EPBC Act\)](#)
- [Antarctic Marine Living Resources Conservation Act 1981](#)
- [Antarctic Marine Living Resources Conservation Regulations 1994](#)
- [Fisheries Management Act 1991 \(FM Act\)](#)
- [Fisheries Management Regulations 2019 \(FM Regulations\)](#)

SECTION 3: DETAILED ANALYSIS AGAINST THE GUIDELINES

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 – The management regime is clearly defined, transparent and publicly available on the CCAMLR website.</p> <p>Information on fishery performance, including catch of target and bycatch species, and compliance with CCAMLR conservation measures is published on the CCAMLR website.</p> <p>Meetings where management arrangements are developed are well documented on CCAMLR and AFMA websites.</p> <p>Australia's management arrangements are broadly defined in the <i>Fisheries Management Act 1991</i> (FM Act) and the <i>Fisheries Management Regulations 2019</i> (FM Regulations).</p> <p>AFMA and the Australian Antarctic Division (AAD) also publish a Guide to CCAMLR New and Exploratory Fisheries which outlines the process for Australian companies or persons to apply for a permit to fish in CCAMLR New and Exploratory Fisheries and the regulations that would apply to such fishing operations.</p>

Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public.

Partially meets – Management is consultative and transparent and is open to all Australian interested parties.

CCAMLR meetings, where management arrangements for the fisheries are defined, are restricted to delegates from member countries and approved observers. Australia's delegation includes Commonwealth, State and Territory government representatives, fishing industry and conservation interests. The consultation process through CCAMLR for accessing new and exploratory fisheries is described in Section 3 of AFMA's [New and Exploratory Fishing Guide](#).

Within Australia, consultation is undertaken by the Australian Government to develop a national position on CCAMLR issues. These positions are developed in consultation with stakeholders, mainly through meetings of the CCAMLR Consultative Forum (CCF). The CCF is convened by the DAWE and includes representatives from government and non-government organisations, including industry, and all Australian interested parties and meets three times a year.

SouthMAC is the relevant domestic Management Advisory Committee for the fisheries and includes representation from AFMA, AAD, CSIRO, conservation and industry. Sub-Antarctic Resource Assessment Group (SARAG) is the key domestic scientific assessment group for the fisheries and includes representation from AFMA, AAD, CSIRO, industry and expertise based scientists.

<p>Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process.</p>	<p>Meets – Management draw on a wide range of expertise and interests</p> <p>CCAMLR draws on a wide range of scientific, fisheries management and other expertise in developing its management arrangements. Australia’s delegation to CCAMLR includes Commonwealth, State and Territory government representatives, fishing industry and conservation interests.</p> <p>Within Australia the CCAMLR Consultative Forum, Sub-Antarctic Resource Assessment Group and Sub-Antarctic Fisheries Management Advisory Committee include representatives from research, government, and non-government sectors, including the fishing industry and conservation interests.</p> <p>The Australian Antarctic Division of the Department of Agriculture water and the Environment undertakes or participates in the CCAMLR stock assessments for Antarctic fisheries. Their work is peer reviewed through the abovementioned groups.</p>
<p>Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured.</p>	<p>Meets - Management is strategic, with clear objectives and performance management processes.</p> <p>Conservative catch limits and triggers are set, based on available information and the information required to better understand the fisheries’ potential. These requirements are regularly reviewed and defined in CCAMLR research and data collection plans.</p> <p>Compliance with management arrangements is actively monitored by AFMA and reported to CCAMLR by all CCAMLR members. The performance of fisheries against CCAMLR’s objectives is also monitored and reported by CCAMLR.</p>

Be capable of controlling the level of harvest in the fishery using input and/or output controls.

Meets – Effective harvest controls in place

CCAMLR has a well-developed suite of input and output controls defined in its conservation measures. These have been demonstrated to be effective for managing harvest in the fisheries by authorised vessels. For Australian operations these arrangements are reflected in conditions on permits issued by AFMA.

Catches from licensed operators are rigorously monitored and reported against, and since 2012 (at least), have been well below the limits set by CCAMLR.

IUU fishing continues to pose a significant challenge for CCAMLR. Although IUU catches have not been estimated in recent years due to methodological difficulties, they have previously been well in excess of the legal catch limits.

However, there has been success in combatting IUU fishing. Evidence from 2014/15 shows a significant disruption to IUU vessel operations, detentions in port states, deliberate sinking of one vessel and action taken by CCAMLR Members whose nationals have been engaged in IUU fishing. No IUU fishing has been detected since 2016. Australia continues to play a key role in surveillance and enforcement activities within the region and is having a significant positive effect.

Contain the means of enforcing critical aspects of the management arrangements.

Meets – Effective enforcement capability for legal fishing is in place.

CCAMLR prescribes binding arrangements for management of fisheries in the region. CCAMLR Members are then responsible for regulating the operations of their vessels in CCAMLR fisheries. Australia gives effect to the arrangements through conditions on permits issued by AFMA under section 33 of the FM Act. Australia and other CCAMLR Members also play an important role in managing IUU fishing in the region.

AFMA's powers are conferred through Part 6 of the FM Act.

AFMA monitors compliance by requiring:

- prior notification when fishing vessels enter and exit the fisheries
- any transshipment of fish, goods or persons between vessels to be approved, observed and verified by an independent observer
- operation of VMS to monitor vessel activities
- carriage of two scientific observers one of who must be independent on all voyages to monitor and record data and fisher's compliance with management arrangements. A formal process also allows observers to raise any compliance issues with the Vessel Master
- compliance with the CCAMLR Catch Documentation Scheme, to verify and track catch throughout the supply chain (in accordance with CM 10-05 Catch Documentation Scheme for *Dissostichus* spp.)
- daily reporting through fishing logbooks and wildlife interaction reports completed by the Vessel Master
- port monitoring of all catch unloads by authorised personnel. This further verifies catch records maintained by the observer, reported by the vessel's Master and ensures compliance with CCAMLR CMs
- the completion of shot-by-shot logbooks and provision of that data to CCAMLR and AFMA.

<p>Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria.</p>	<p>Meets – Management includes a robust, regular and transparent performance management regime.</p> <p>The CCAMLR Commission receives advice from its Scientific Committee which is itself informed by various working groups focussed on ecosystem monitoring and management, statistics, assessments and modelling, and fish stock estimates. Australia is an active participant in these groups.</p> <p>This advice, in addition to the advice from the Standing Committee on Implementation and Compliance is considered by the Commission at its annual meetings and used to review and further develop the conservation measures.</p> <p>AFMA also monitors fishery performance and responds to any issues to ensure compliance with the conservation measures.</p> <p>Where appropriate Australia’s delegation brings forward proposals and raises issues for consideration by CCAMLR at their annual meetings.</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 – Management includes acceptable mitigation of ecological risk.</p> <p>There are strict monitoring and data collection requirements for participants in CCAMLR managed fisheries.</p> <p>Formal mechanisms allow independent scientific observers to raise issues with the Vessel Master, ensuring operators are aware of, and comply with management measures, and Vessel Masters are required to immediately define and implement strategies in response to any interactions with protected species.</p> <p>Limits and triggers are set for vulnerable marine environments and where these are identified, relevant areas are closed to fishing.</p> <p>CCAMLR conservation measures include a range of protections for vulnerable marine ecosystems, non-target species including bycatch and protected species. These include area closures and gear restrictions. These measures are implemented and managed by the management arrangements administered by AFMA.</p>

<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>	<p>Meets – Compliant with all relevant plans</p> <p>AFMA presents information on the performance against the <i>Threat Abatement Plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations (2018)</i> at the annual TAP Stakeholder meeting, convened by the Australian Antarctic Division. As vessels participating in the fisheries are required to cover two observers, monitoring rates exceed those required by the TAP. No seabirds have been reported as killed by fishing gear in these fisheries.</p>
<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>Meets- There is a robust research and monitoring system that includes both fishery-dependent and independent data collection.</p> <p>The information needs for new and exploratory fisheries are considered by specialist working groups and the CCAMLR Scientific Committee. They are then prescribed in CCAMLR conservation measures each year. Current measures include both fishery-dependent monitoring and data collection and independent monitoring and data collection undertaken by independent scientific observers.</p> <p>This regime balances the need for precautionary management, with the need to quickly reduce uncertainty for future development. The current plans are expected to deliver more robust assessments in the future.</p> <p>There is reliable information collection as CCAMLR has strict reporting requirements and each vessel participating in CCAMLR East Antarctica Fishery must have at least two scientific observers on each vessel.</p>
<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.

Partially meets – Annual stock estimates are robust, but data is limited; management is therefore precautionary by necessity.

There has been no accepted integrated stock assessment for division 58.4.2 or 58.4.1, however a preliminary stock assessment report was released in 2020 that has identified data gaps required for a full stock assessment. Fishing in the established research blocks is ongoing and is intended to provide data for future stock assessments. ([ABARES Fishery Status Report](#)).

Division 58.4.1 was not fished in the 2019-2020 season and resulting in a loss of a season of data and a break in the time series of the data collected in this fishery. This has caused a delay to the further development of a stock assessment and the ability of the Scientific Committee to provide advice to the Commission for this area.

Information and understanding of the new and exploratory fisheries remain limited. CCAMLR Working Group on Fish Stock Assessment considers available data and research when providing advice on catch limits to the CCAMLR Scientific Committee (WG-FSG-19). In these data poor fisheries, this involves developing biomass density estimates based on available catch data and information from similar fisheries which have had more robust assessments undertaken. These estimates are then scaled to the relevant seabed area. Where tag-recapture data is available this is also used to inform the assessment.

The preliminary integrated stock assessment report was released in September 2020. The assessment model used all data available from the region, supplemented with parameter estimates from other toothfish stock assessments. The report states that toothfish stock in Divisions 58.4.1 and 58.4.2 is unlikely to be depleted by the current level of fishing mortality. It was recommended that further work to consolidate appropriate estimates of vessel-specific tag survival and detection performance occurs to complete a robust integrated stock assessment.

Given the limited data available catch limits are set conservatively at levels so that they do not exceed 4% of the estimated stock size and are designed to not be substantially higher than the level required to evaluate the fisheries. ([ABARES Fishery Status Report](#) 2019).

1.1.3 The distribution and spatial structure of the stock(s) has been established and factored into management responses.

Partially meets – Stock estimates take into account all available information on distribution and spatial structures. Information is limited however.

The fisheries are new and exploratory; meaning information on stock distribution and spatial structure is limited.

A research plan has been developed to improve future stock assessments for the Divisions and to inform considerations of spatial structure, biomass and connectivity of toothfish populations. ([CCAMLR 55.4.2 Fishery Report 2019](#))

The plans set requirements for catch, effort and related biological, ecological and environmental data collection, and also direct fishing effort. This seeks to maximise the value of the data collected during exploratory fishing and minimises the likelihood of any adverse impacts.

Environmental data will also be collected to inform models of toothfish habitat use, spatial management approaches for toothfish, and the conservation of representative areas of benthic biodiversity. This will also help map the bathymetry of fishable areas, and improve understanding of the distribution, relative abundance, and life histories of bycatch species.

A tag-recapture program is also in force across all areas of the fisheries.

Research results are used in CCAMLR's annual stock estimates and are peer reviewed by the CCAMLR Working Group on Fish Stock Assessment and CCAMLR Scientific Committee when assessing New and Exploratory fisheries.

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.

Meets- Stock estimates consider all removals from the fisheries.

Removals from the fisheries are closely monitored and highly regulated. CCAMLR also includes estimates of IUU fishing when setting conservation measures, including catch limits, each year.

Since 2011, following the recognition of methodological issues in its assessment, no estimates of the IUU catch of *Dissostichus spp.* have been provided for this fishery. However, detailed information on fishing activities of IUU-listed vessels from Division 58.4.1 in 2014 has been obtained as part of an operation launched by Spain.

Based on the unprecedented availability of information from IUU vessels in Division 58.4.1, including catch data and video footage of fishing operations, [WG-FSA-18/60](#) evaluated toothfish catch per unit effort (CPUE) (by weight and number), bycatch species and size compositions, temporal variation in the spatial distribution of IUU activity, the temporal and spatial distribution of authorised fishing vessels in relation to available IUU activity to review the potential impacts of IUU removals on previous research conducted in the region and the relationship between reported IUU vessel sightings and actual levels of removals.

All catch from CCAMLR fisheries is recorded and reported by the Vessel Master on a shot by shot basis, as well as by two scientific observers one of whom is independent, who are present on all voyages. The Vessel Master must also notify AFMA prior to entering and exiting the fisheries, transshipping fish, persons or any other goods to limit the opportunity for IUU catch.

Concession holders must fulfil the obligations of [CCAMLR's Catch Documentation Scheme](#) for the unloading of toothfish product, and facilitate in-port monitoring of all catch unloads, by an authority of the Port State. This allows CCAMLR to verify the data reported by the observers and the Vessel Master.

<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>Partially meets – Productivity is not well understood, however plans are in place to reduce uncertainty and improve stock assessments.</p> <p>Conservative catch limits are set annually by CCAMLR and take into account advice from the CCAMLR Working Group on Fish Stock Assessment, and the CCAMLR Scientific Committee.</p> <p>Information from previous fishing in this area, as well as other CCAMLR areas, informs CCAMLR's decisions. Catch limits are set at levels not substantially above that required to evaluate the distribution, abundance and demography of the target species.</p> <p>Catch limits also allow for estimates of the fisheries' potential yield, review of the fisheries' potential impacts on dependent and related species, and allow the Scientific Committee to advise on catch and effort levels, and fishing gear.</p> <p>A preliminary integrated stock assessment report was released in September 2020. The report identifies data required to complete a robust integrated stock assessment.</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 – Precautionary reference points are in place, reflecting limited information on stock status</p> <p>Given the limited data available and the potential need for stock recovery in some areas, catch limits are set conservatively at levels so that they do not exceed 3-4% of the estimated stock size and are designed to not be substantially higher than the level required to evaluate the fisheries.</p> <p>Catch limits are revised annually by CCAMLR at levels not substantially above that required to evaluate the distribution, abundance and demography of the target species, estimate the fisheries' potential yield, review the fisheries' potential impacts on dependent and related species, and to allow the Scientific Committee to advise the Commission on catch and effort levels as well as fishing gear.</p> <p>Catch limits ensure the median estimated spawning stock biomass (not total biomass) is greater than or equal to 50% of the average pre-exploitation spawning biomass after a further 35 years of fishing, with the additional condition that there is less than a 10% probability that the spawning biomass will decline below 20% of the pre-exploitation level at any time during this period.</p> <p>These reference points are more precautionary than prescribed in Australia's Commonwealth Fisheries Harvest Strategy Policy and Guidelines (2018).</p>

<p>1.1.7 There are management strategies in place capable of controlling the level of take.</p>	<p>Meets – Effective harvest controls are in place</p> <p>Total allowable catch limits and limited numbers of licenses control the level of take in the fisheries.</p> <p>Fishing activity, including catches is closely monitored by CCAMLR and its members, including Australia.</p> <p>Catch and effort data per small scale research unit is reported daily (CM 41-01)</p>
<p>1.1.8 Fishing is conducted in a manner that does not threaten stocks of by-product species.</p>	<p>Meets – Effective controls are in place to manage risks to all species, including by-product (referred to by CCAMLR as bycatch) species</p> <p>The CCAMLR conservation measures prescribe catch limits for skates and rays (Rajids), grenadiers (Macrourids) as well as all other species encountered as bycatch.</p> <p>Fishing is also restricted to demersal longline methods in waters deeper than 550 m (CM 22-08) to minimise the potential impacts on juvenile toothfish and vulnerable marine ecosystems.</p> <p>Within each Division, catch limits are further subdivided smaller areas based on a proportion of the target species catch limit, or a defined amount (whichever is greater). These limits are prescribed in CM 33-03. Triggers exist to minimise interaction rates (e.g. move-on provisions if catches of any one species reach one tonne in a single haul, and closures where catches reach defined levels).</p>
<p>(Guidelines 1.1.1 to 1.1.7 should be applied to by-product species to an appropriate level)</p>	
<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>Meets – Effective controls are in place to manage risks to all species, including by-product (referred to by CCAMLR as bycatch) species.</p> <p>Management arrangements are precautionary and designed to improve understanding of the fisheries. There is regular monitoring and assessment of management performance as well as opportunity for revision where necessary. No further requirements have been identified at this time.</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>Fishery is not considered to be overfished. (ABARES Fishery Status Report 2019)</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>Fishery is not considered to be overfished. (ABARES Fishery Status Report 2019)</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>	
<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 – There is a robust research and monitoring system that includes both fishery-dependent and independent data collection.</p> <p>The CCAMLR conservation measures prescribe catch limits for skates and rays (Rajids), and grenadiers (Macrourids) as well as all other species encountered as bycatch. Where possible these are reported at a species level. Examples of reporting by Australian vessels in other Divisions shows reporting is generally at a species level.</p> <p>Within each Division, these limits are further divided across smaller areas based on a proportion of the target species catch limit, or a defined amount (whichever is greater). These limits are prescribed in CM 33-03.</p> <p>Triggers exist to minimise interaction rates (e.g. move-on provisions if catches of any one species reach one tonne in a single haul, and closures where catches reach defined levels).</p>
<p>Assessment</p>	

2.1.2 There is a risk analysis of the bycatch with respect to its vulnerability to fishing.

Meets- Bycatch is considered as part of annual stock and management considerations.

CCAMLR has developed risk frameworks for vulnerable marine ecosystems, seabirds and marine mammals. The CCAMLR Working Group on Fishery Stock Assessment also undertakes regular risk assessments of CCAMLR fisheries by Division including new and exploratory fisheries. All bycatch levels in both divisions are significantly lower than the prescribed catch limits for all years since their commencement.

Research results, including data collected through exploratory fishing are used in CCAMLR's annual stock estimates, and are peer reviewed by the CCAMLR Working Group on Fish Stock Assessments and CCAMLR Scientific Committee when assessing New and Exploratory fisheries.

Qualitative risk assessments undertaken on similar, nearby fisheries ([Heard Island and Macquarie Island Fisheries, 2009](#) and an ERA undertaken for [New Zealand operations in Divisions 54.8.1 and 58.4.2](#)) found no species at risk of overfishing based on the management arrangements in place at the time. These management arrangements are consistent with those in force for the new and exploratory fisheries in Divisions 58.4.1 and 58.4.2.

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.

Meets – Management responses are in place.

Bycatch and protected species interactions are monitored and managed by CCAMLR and AFMA. Monitoring is achieved through daily shot by shot catch reports, VMS, and information from two independent onboard scientific observers. Formal mechanisms allow independent scientific observers to raise issues with the Vessel Master, ensuring operators are aware of, and comply with management measures, and Vessel Masters are required to immediately define and implement strategies in response to any interactions with protected species.

Bycatch levels in both Divisions have been significantly lower than the prescribed catch limits for all years since their commencement.

Since the inception of Division 58.4.1 in 2005, when two southern giant petrels (*Macronectes giganteus*) and three sooty shearwaters (*Puffinus griseus*) were reported injured or killed, there have been no incidental mortalities of seabirds or marine mammals. Since the inception of Division 58.4.2 in 2003, there have been no observed incidental mortalities of seabirds, and only one reported mortality of a leopard seal (*Hydrurga leptonyx*). This occurred in 2005.

Incidence and response reports are also reviewed regularly at Sub-Antarctic Resource Assessment Group meetings and advice is then used by AFMA to further refine management arrangements.

Current measures in place to minimise risk to protected species include:

- Prohibition on offal discharge to avoid attracting and provisioning wildlife
- Using integrated weight line, paired streamer lines, brickle curtains and seasonal closures to avoid seabirds attending baits
- Minimising lighting on fishing vessels to reduce the risk of seabirds colliding with vessels, and
- Prohibition on use of plastic packaging bands to secure bait boxes.

Bycatch is controlled using catch limits, fishing depth restrictions, area closures and move-on provisions. AFMA's management arrangements are also consistent with the following measures:

- [Threat Abatement Plan for the incidental catch \(or bycatch\) of seabirds during oceanic longline fishing operations \(2018\)](#), and
- [CCAMLR conservation measures](#)

<p>2.1.4 An indicator group of bycatch species is monitored.</p>	<p>Partially Meets – Bycatch is comprehensively monitored but indicator species have not been identified.</p> <p>There are no identified indicator species. However, bycatch limits are in place for skates and rays (Rajids), grenadiers (Macrourids) as well as all other species (as a group); catch reporting within these groups is typically at a species level.</p> <p>Limits are also in place for vulnerable marine ecosystems and seabirds. Catches are closely monitored and managed by CCAMLR and AFMA through a combination of daily shot-by-shot catch reports, active vessel satellite monitoring systems and information from the two independent onboard scientific observers.</p> <p>Current bycatch categories are based on catch composition rather than any consideration of value as an indicator of ecological impact. However, a recent study in Divisions 58.4.1 and 58.4.2 found grenadiers were the main prey item for toothfish (47.6% by weight stomach contents) and were also the primary bycatch species in these waters.</p>
<p>2.1.5 There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.</p>	<p>Partially meets- Precautionary decision rules, including triggers are in place and their performance is regularly assessed.</p> <p>There are no identified indicator species. However, spatial closures and move-on provisions apply when catches of target and bycatch species, or interactions with vulnerable marine ecosystems reach defined limits. These limits are further divided over SSRUs to maximise the value of the fishery data being collected and minimise any risk of localised impact. Where interactions with protected species occur, the concession holder is also required to immediately implement measures outlined in their wildlife interaction reports to minimise the likelihood of similar interactions with protected species.</p>
<p>2.1.6 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>Meets – The close monitoring and management of the precautionary measures, and the scientific and other expertise involved in these processes provide confidence in the management actions.</p>
<p>Objective 2 - The fishery is conducted in a manner that avoids mortality of, or injuries to, endangered, threatened or protected species and avoids or minimises impacts on threatened ecological communities.</p>	
<p>Information requirements</p>	

<p>2.2.1 Reliable information is collected on the interaction with endangered, threatened or protected species and threatened ecological communities.</p>	<p>Meets – There is a robust research and monitoring system that includes both fishery-dependent and independent data collection.</p> <p>CCAMLR requires all participants in CCAMLR fisheries to complete and submit detailed daily fishing reports to monitor the catch of target, bycatch and protected species. These reports are typically at a species level.</p> <p>For protected species, the concession holder must also detail and immediately implement measures to minimise the likelihood of subsequent similar interactions.</p> <p>Australia has a strong record of compliance with these requirements, which are reviewed and reported on annually by CCAMLR.</p>
<p>Assessments</p>	
<p>2.2.2 There is an assessment of the impact of the fishery on endangered, threatened or protected species.</p>	<p>Partially meet- An ecological risk assessment, according to Australian and New Zealand standards, is yet to be undertaken. However relevant information is available, and management is precautionary.</p> <p>This is considered appropriate for the scale of the fisheries at this time.</p> <p>CCAMLR has developed risk frameworks for vulnerable marine ecosystems, seabirds and marine mammals. The CCAMLR Working Group on Fishing Stock Assessment also undertake regular risk assessments of CCAMLR fisheries by Division including for new and exploratory fisheries.</p> <p>While there is no formal evaluation of the ecosystem implications of fishing for either Area performed by CCAMLR, the risk level for seabirds in both Divisions, based on current conservation measures, is ranked ‘category 2’ - average to low (CCAMLR Fishery Reports 58.4.1 and 58.4.2, SC-CAMLR-XXX, Annex 8, paragraph 8.1).</p> <p>Qualitative risk assessments undertaken on similar, nearby fisheries (Heard Island and Macquarie Island Fisheries, 2009 and for New Zealand operations in Divisions 58.4.1 and 58.4.2) found no species at risk of overfishing based on the management arrangements in place. These management arrangements are consistent with those in force for the new and exploratory fisheries in Divisions 58.4.1 and 58.4.2.</p> <p>Interactions with protected species have been very low (six interactions) since 2003; all occurred in 2005.</p>

<p>2.2.3 There is an assessment of the impact of the fishery on threatened ecological communities.</p>	<p>No threatened ecological communities have been identified in the area</p>
<p>Management responses</p>	
<p>2.2.4 There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.</p>	<p>Meets – Effective strategies are in place to mitigate risks of protected species.</p> <p>Current measures include:</p> <ul style="list-style-type: none"> • retain fish offal to minimise the attraction of seabirds and marine mammals to the boat; • use internally weighted longlines with an integrated weight of at least 50g/m; • deploy a streamer line during longline setting; • deploy a bird exclusion device (BED) in high risk areas to discourage birds from accessing baits during the hauling of longlines; • ensure that the amount of light showing from the boat does not exceed the amount necessary for the safe operation of the boat; • change to night fishing night setting only (i.e. setting only during the hours of darkness between the times of nautical twilight) if three (3) or more seabirds are caught by longline; and • Restrictions on plastic packaging bands, avoiding any possible impact these bands may have on wildlife. <p>Fishing depth restrictions, area closures and move-on provisions provide additional protection.</p> <p>AFMA's management arrangements are also consistent with the following measures:</p> <ul style="list-style-type: none"> • Threat Abatement Plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations (2018), and • CCAMLR conservation measures
<p>2.2.5 There are measures in place to avoid impact on threatened ecological communities.</p>	<p>Not applicable</p> <p>No threatened ecological communities have been identified in the area</p>

<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>	<p>Meets - An ecological risk assessment, according to Australian and New Zealand standards, is yet to be undertaken. However relevant information is available, and management is precautionary.</p> <p>This is considered appropriate for the scale of the fisheries at this time.</p> <p>The fisheries are new and exploratory and as yet have not had a formal ecological risk assessment. However, CCAMLR has developed risk frameworks for vulnerable marine ecosystems, seabirds and marine mammals. The CCAMLR Working Group on Fishing Stock Assessment also undertake regular risk assessments of CCAMLR fisheries by Division including for new and exploratory fisheries.</p> <p>Qualitative risk assessments undertaken on similar, nearby fisheries (Heard Island and Macquarie Island Fisheries, 2009 and for New Zealand operations in Divisions 58.4.1 and 58.4.2) found no species at risk of overfishing based on the management arrangements in place.</p> <p>Management arrangements are precautionary and designed to deliver information on the fisheries before further development and longer-term investment occurs.</p> <p>Vulnerable marine ecosystems and impacts on the environment are considered in managing CCAMLR fisheries.</p> <p>Given the implementation of the requirements of the CCAMLR Conservation Measures, it is considered there is a high likelihood the management responses will ensure that Australian operations in the CCAMLR East Antarctica Fishery will be effective and the operations will avoid mortality of or injuries to protected species.</p>
<p>Objective 3 - The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally.</p>	
<p>Information requirements</p>	
<p>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>	<p>Robust data collection methods have been established by CCAMLR and are administered by AFMA, as described above at 2.1.1 and 2.2.1.</p>
<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.

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
 - Physical habitat
 - Water quality

Partially meets - An ecological risk assessment, according to Australian and New Zealand standards, is yet to be undertaken. However relevant information is available, and management is precautionary.

This is considered appropriate for the scale of the fisheries at this time.

The fisheries are new and exploratory and as yet have not had a formal ecological risk assessment. However, CCAMLR has developed risk frameworks for vulnerable marine ecosystems, seabirds and marine mammals. The CCAMLR Working Group on Fishing Stock Assessment also undertake regular risk assessments of CCAMLR fisheries by Division including for new and exploratory fisheries.

While there is no formal evaluation of the ecosystem implications of fishing for either area performed by CCAMLR, the risk level for seabirds in both Divisions, based on current conservation measures, is ranked 'category 2' - average to low (CCAMLR Fishery Reports [58.4.1](#) and [58.4.2](#), SC-CAMLR-XXX, Annex 8, paragraph 8.1).

Qualitative risk assessments undertaken on similar, nearby fisheries (Heard Island and Macquarie Island Fisheries, 2009 and for New Zealand operations in Divisions 58.4.1 and 58.4.2) found no species at risk of overfishing based on the management arrangements in place. These management arrangements are consistent with those in force for the new and exploratory fisheries in Divisions 58.4.1 and 58.4.2.

Management arrangements are precautionary and designed to deliver information on the fisheries before any further development and longer-term investment occurs.

Vulnerable marine ecosystems and impacts on the environment are considered in managing CCAMLR fisheries.

These arrangements are considered appropriate to the scale of the fisheries at this time.

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 - Management is precautionary and includes appropriate ecosystem protections.</p> <p>The fisheries are new and exploratory and as yet have not had a formal ecological risk assessment. However, CCAMLR has developed risk frameworks for vulnerable marine ecosystems, seabirds and marine mammals. The CCAMLR Working Group on Fishing Stock Assessment also undertake regular risk assessments of CCAMLR fisheries by Division including for new and exploratory fisheries.</p> <p>While there is no formal evaluation of the ecosystem implications of fishing for either Area performed by CCAMLR, the risk level for seabirds in both Divisions, based on current conservation measures, is ranked 'category 2' - average to low (CCAMLR Fishery Reports 58.4.1 and 58.4.2, SC-CAMLR-XXX, Annex 8, paragraph 8.1).</p> <p>Qualitative risk assessments undertaken on similar, nearby fisheries (Heard Island and Macquarie Island Fisheries, 2009 and for New Zealand operations in Divisions 58.4.1 and 58.4.2) found no species at risk of overfishing based on the management arrangements in place. These management arrangements are consistent with those in force for the new and exploratory fisheries in Divisions 58.4.1 and 58.4.2.</p> <p>Management arrangements are precautionary and designed to deliver information on the fisheries before any further development and longer-term investment occurs.</p> <p>Vulnerable marine ecosystems and impacts on the environment are considered in managing CCAMLR fisheries.</p> <p>These arrangements are considered appropriate to the scale of the fisheries at this time.</p>
<p>2.3.4 There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a predetermined level, or where action is indicated by application of the precautionary approach.</p>	<p>Meets - Precautionary decision rules, including triggers are in place and their performance is regularly assessed.</p> <p>Fishing activity is closely monitored by CCAMLR and AFMA and spatial closures and move-on provisions apply when catches of bycatch species and interactions with vulnerable marine ecosystems reach defined limits. These limits divided across smaller areas within each Division to maximise the value of fishery data being collected and minimise any risk of localised impact. The concession holder is also required to immediately implement measures outlined in their wildlife interaction reports to minimise the likelihood of subsequent similar interactions with protected species.</p>

2.3.5 The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.

Meets - Management arrangements are precautionary and considered appropriate to the scale of the fisheries at this time.

Management arrangements are precautionary and designed to deliver information on the fisheries before any further development and longer-term investment occurs.

SECTION 4: ASSESSMENT AGAINST 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 10 – Strategic assessments

Division 2 Assessment of Commonwealth-managed fisheries Section 153 Minister must make declaration if he or she endorses plan or policy	The Department's assessment of the CCAMLR East Antarctica Fishery, Statistical Divisions 58.4.1 and 58.4.2
(1) This section applies if: (a) the Minister makes an agreement under section 146 as required by this Division and endorses under the agreement: (i) a plan of management under the Fisheries Management Act 1991 (CTH) for a fishery; or (ii) policies of the Australian Fisheries Management Authority for managing a fishery for which there is not a plan of management under the Fisheries Management Act; or (iii) a plan of management under the <i>Torres Strait Fisheries Act 1984</i> (CTH) for a fishery; or (iii) policies for managing fishing under the <i>Torres Strait Fisheries Act</i> ; and (b) the Minister accredits, under subsection 33(3) of this Act, as an accredited arrangement a management plan or regime consisting of the endorsed plan or policies.	No assessment of the CCAMLR East Antarctica Fishery has been carried out under Part 10 of the EPBC Act as the fishery is exploratory in nature and no plan of management has been made under the <i>Fisheries Management Act 1991 (Cth)</i> .

(2)	The Minister must make a declaration under section 33 that actions approved in accordance with the accredited arrangement do not require an approval under Part 9 for the purposes of subsection 23(1), (2) or (3) or subsection 24A(1), (2), (3), (4), (5) or (6).	
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Part 12 – Identifying and monitoring biodiversity and making bioregional plans

Section 176 Bioregional Plans		Comment
(5)	Minister must have regard to relevant bioregional plans	There is not Marine Bioregional Plan relevant to these fisheries

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- There is an accreditable regime in place for the CCAMLR East Antarctica Fishery</p> <p>There is an accreditable regime in place for the East Antarctica Fishery which has demonstrated to be effective in mitigating the risk to protected species.</p>

	The East Antarctica Fishery will be managed under the <i>Fisheries Management Act 1991</i> , <i>Fisheries Management Regulation 2019</i> , and the Management regime defined in CCAMLR Conservation Measures.
Division 1 Listed threatened species, Section 208A Minister may accredit plans or regimes	Comment
(f) Will the plan, regime or policy require fishers to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing?	<p>Meets- There is an accreditable regime in place for the CCAMLR East Antarctica Fishery</p> <p>There is an accreditable regime in place for the CCAMLR East Antarctica Fishery which has demonstrated to be effective in mitigating the risk to protected species.</p>
(g) And, is the fishery likely to adversely affect the survival or recovery in nature of the species?	<p>Given the legislation in force, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of threatened species and the capture of any threatened species would be incidental to and not the purpose of the operation of CCAMLR East Antarctica Fishery.</p> <p>Evidence suggests that the CCAMLR East Antarctica Fishery have minimal interactions with listed threatened species. Therefore, the Department considers the operation of the CCAMLR East Antarctica Fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p> <p>Given the measures in place in the fishery (see above), the Department considers the current operation of the CCAMLR East Antarctica 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- There is an accreditable regime in place for the CCAMLR East Antarctica Fishery</p> <p>Given the legislation in force, the Department considers that all reasonable steps are being taken to prevent the killing or injuring of listed migratory species and the capture of any listed</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>migratory species would be incidental to and not the purpose of the operation of the CCAMLR East Antarctica Fishery.</p> <p>The report provided by AFMA indicates that there have been no reported interactions with an EPBC-listed migratory species in the CCAMLR East Antarctica Fishery. Therefore, the Department considers the current operation of the CCAMLR East Antarctica Fishery is not likely to adversely affect the conservation status of a listed migratory species or a population of that species.</p>
<p>Division 3 Whales and other cetaceans, Section 245 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 cetaceans are not killed or injured as a result of the fishing?</p>	<p>Meets- There is an accreditable regime in place for the CCAMLR East Antarctica Fishery</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 CCAMLR East Antarctica Fishery.</p>
<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>	<p>The report provided by AFMA indicates that there has been no interactions with a cetacean in the CCAMLR East Antarctica Fishery. Therefore, the Department considers the current operation of the CCAMLR East Antarctica Fishery is not likely to adversely affect the conservation status of a species of cetacean or a population of that species.</p>
<p>Division 4 Listed marine species, Section 265 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 marine species are not killed or injured as a result of the fishing?</p>	<p>Meets- There is an accreditable regime in place for the CCAMLR East Antarctica Fishery</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 CCAMLR East Antarctica Fishery.</p>
<p>(g) And, is the fishery likely to adversely affect the conservation status of a listed marine species or a population of that species?</p>	<p>The report provided by AFMA indicates that there has been no interactions with a cetacean in the CCAMLR East Antarctica Fishery. Therefore, the Department considers the current operation of the CCAMLR East Antarctica Fishery is not likely to adversely affect the conservation status of a species of cetacean 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>Meets</p> <p>The Department considers that the accreditation of the CCAMLR East Antarctica Fishery management regime remains valid under sections 208A, 222A, 245 and 265.</p> <p>The Department considers that no conditions are required for the accreditation of the management regime for the CCAMLR East Antarctica Fishery under Part 13.</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>	

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; 	<p>Meets</p> <p>The management arrangements for the CCAMLR East Antarctica Fishery in CCAMLR Statistical Division 58.4.1 and 58.4.2 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 CCAMLR East Antarctica Fishery is unlikely to be unsustainable and threaten biodiversity within the next five years, and • the <i>Environment Protection and Biodiversity Conservation Regulations 2000</i> do not specify fish as a class of animal in relation to the welfare of live specimens.

<ul style="list-style-type: none"> (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. 	
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> <p>(a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to:</p> <p>(i) the survival of any taxon to which the specimen belongs; or</p>	<p>Not applicable – The fishery does not harvest species listed under CITES.</p>
<p>(ii) the recovery in nature of any taxon to which the specimen belongs; or</p>	
<p>(iii) any relevant ecosystem (for example, detriment to habitat or biodiversity); and</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 harvested in the CCAMLR East Antarctica Fishery, as defined in the management regime in force under the <i>Fisheries Management Act 1991 and Fisheries Regulations 2019</i>, 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 until 27 November 2025.</p>
<p>(1A) In deciding to amend the LENS, the Minister must rely primarily on outcomes an assessment under Part 10, Divisions 1 or 2</p>	<p>No assessment of the CCAMLR East Antarctica Fishery has been carried out under Part 10 of the EPBC Act as the fishery is exploratory in nature and no plan of management has been made under the <i>Fisheries Management Act 1991 (Cth)</i>.</p> <p>AFMA's current guidance about exploratory fisheries is available here:</p> <p>https://www.afma.gov.au/sites/default/files/final_guide_to_ccamlr_new_and_exploratory_fisheries_2020.pdf https://www.afma.gov.au/sites/default/files/draft_exploratory_fisheries_policy_-_fisheries_management_paper_5_-_17_dec_2019_1.pdf</p> <p>While these do not disclose the existence of a plan of management for the exploratory fisheries, fishers wishing to participate in the fishery are permitted under the <i>Fisheries Management Act 1991 (Cth)</i> and required to demonstrate that operations are consistent with CCAMLR conservation measures.</p>

<p>(1C) The above does not limit matters that may be considered when deciding to amend LENS.</p>	<p>Although there is no strategic assessment under Part 10 of the EPBC Act, the Department considers its assessment 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>The submission from the Australian Fisheries Management Authority was made available on the Department's website from 24 July - 01 September 2020. No comments received.</p>
Section 303FN Approved wildlife trade operation	Comment
<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 (b) the operation will not be detrimental to: <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 (ba) the operation will not be likely to threaten any relevant ecosystem 	<p>Not applicable</p> <p>Fishery is not recommended to be an approved wildlife trade operation.</p>

<p>including (but not limited to) any habitat or biodiversity; and</p>	
<p>(c) if the operation relates to the taking of live specimens that belong to a taxon specified in the regulations – the conditions that, under the regulations, are applicable to the welfare of the specimens are likely to be complied with; and</p>	
<p>(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.</p>	
<p>(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) the significance of the impact of the operation on an ecosystem (for</p>	

example, an impact on habitat or biodiversity); and	
(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).	
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or Territory concerned; and</p> <p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	
<p>(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>(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>(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>Not applicable</p> <p>Fishery is not recommended to be an approved wildlife trade operation.</p>
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Section 303FR Public consultation	Comment
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <ul style="list-style-type: none"> (a) setting out the proposal to make the declaration; and (b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and (c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal. <p>(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.</p> <p>(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.</p>	<p>Meets</p> <p>A public notice, which set out the proposal to declare the CCAMLR East Antarctica Fishery an approved wildlife trade operation and included the application from AFMA, was released for public comment on 24 July 2020 to 01 September 2020, a total of 26 business days.</p> <p>No comments received.</p>
Section 303FT Additional provisions relating to declarations	Comments
<p>(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.</p>	<p>A declaration for the CCAMLR East Antarctica Fishery will be made under section 303FN.</p>

<p>(4) The Minister may make a declaration about a plan or operation even though he or she considers that the plan or operation should be the subject of the declaration only:</p> <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 declaration is to specify the period, circumstances or condition.</p>	<p>The standard conditions applied to commercial fishery wildlife trade operations include:</p> <ul style="list-style-type: none"> • operation in accordance with the management regime; • notifying the Department of changes to the management regime; and • annual reporting in accordance with the requirements of the Australian Government Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition. <p>The wildlife trade operation instrument for the CCAMLR East Antarctica Fishery specifies the standard and any additional conditions applied.</p>
<p>(8) A condition may relate to reporting or monitoring.</p>	<p>One of the standard conditions relates to reporting</p>
<p>(9) The Minister must, by instrument published in the <i>Gazette</i>, revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.</p>	

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>Having regard to the annual monitoring of stocks against prescribed performance measures, and the precautionary management measures already in place to mitigate risks to protected species, 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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ACRONYMS

AAD	Australian Antarctic Division
ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
AFMA	Australian Fisheries Management Authority
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCF	CCAMLR Consultative Forum
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CM	Conservation Measure
DAWE	Department of Agriculture, Water and the Environment
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
IUU	Illegal, unreported and unregulated
LENS	List of Exempt Native Specimens
MPA	Marine Protected Area
SARAG	Sub-Antarctic Resource Assessment Group
SouthMAC	Sub-Antarctic Fisheries Management Advisory Committee
SSRU	Small Scale Research Unit
TAC	Total Allowable Catch
TAP	Threat Abatement Plan
TEP	Threatened, Endangered and Protected Species
VMS	Vessel Monitoring System
WG-FSA	Working Group on Fish Stock Assessment