



Australian Government

Department of the Environment

Assessment of the
**SOUTHERN AND EASTERN SCALEFISH AND SHARK
FISHERY**

FEBRUARY 2016

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This report should be attributed as '*Assessment of the Southern and Eastern Scalefish and Shark Fishery February 2016*, Commonwealth of Australia 2016'.

Disclaimer

This document is an assessment carried out by the Department of 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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Table 4 contains a description of the issues identified by the Department with the current management regime for the fishery and outlines the proposed conditions and recommendations that would form part of the delegate's decision to declare the fishery an approved wildlife trade operation

TABLE 1: SUMMARY OF THE SOUTHERN AND EASTERN SCALEFISH AND SHARK FISHERY

<p>Key documents relevant to the fishery</p>	<ul style="list-style-type: none"> • <i>Fisheries Management Act 1991</i> • Fisheries Management Regulations 1992 • Commonwealth Fisheries Harvey Strategy Policy 2007 • Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 • 2015-16 Southern and Eastern Scalefish and Shark Fishery management arrangements booklet • Harvest Strategy Framework for the Southern and Eastern Scalefish and Shark Fishery, September 2015 • Australian Fisheries Management Authority's (AFMA) submission – 'Southern and Eastern Scalefish and Shark Fishery, Annual report 2015' • Dolphin strategy – minimising gillnet bycatch September 2014 • AFMA total allowable catch recommendations (annual) • Australian Sea Lion Management Strategy 2015 • Stock rebuilding strategies for conservation dependent species <ul style="list-style-type: none"> ○ Blue Warehou Rebuilding Strategy 2014 ○ Eastern Gemfish Rebuilding Strategy 2015 ○ Orange Roughy Stock Rebuilding Strategy 2014 ○ School Shark Rebuilding Strategy 2015 ○ Upper Slope Dogfish Management Strategy 2012 • Ecological risk management reports for each sector of the fishery • Bycatch and discarding work plans for each sector of the fishery • Australian Bureau of Agricultural and Resource Economics and Sciences Fishery Status reports (annual) • Marine bioregional plan for the Temperate East Marine Region 2012 • Marine bioregional plan for the South-west Marine Region 2012
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<p>Area</p>	<p>The Southern and Eastern Scalefish and Shark Fishery (SESSF) covers almost half of the Australian Fishing Zone. The area of the fishery extends south from Fraser Island in southern Queensland, around New South Wales, Victoria, Tasmania and South Australia, to Cape Leeuwin in southern Western Australia (Figure 1). The fishery operates in both Commonwealth and state waters.</p> <p>The fishery is comprised of four main sectors, which operate in areas shown in Figure 1. These sectors are:</p> <ul style="list-style-type: none"> • Commonwealth Trawl Sector - represents the majority of effort in the fishery and extends from Sydney southwards around Tasmania to Cape Jervis in South Australia. • East Coast Deepwater Trawl Sector - extends northwards from Sydney up to Fraser Island, including eastwards to waters surrounding Lord Howe Island, however a Trawl Exclusion Zone restricts fishing in the western part of this sector. • Gillnet, Hook and Trap Sector - which comprises four subsectors: <ul style="list-style-type: none"> • Scalefish Hook Sector - extends from Sydney southwards around Tasmania to the border of South Australia and Western Australia, although offshore of New South Wales this sector is excluded for 80 nautical miles from the coast. • Shark Gillnet and Shark Hook Sectors - extend from the New South Wales/Victoria border to the South Australia/Western Australia border. • Trap Sector - within the Shark Hook Sector, in waters north of 42° 20' South. • Great Australian Bight Trawl Sector - extends westwards from Cape Jervis in South Australia to Cape Leeuwin in Western Australia. <p>Part of the fishery's operation occurs in the Temperate East Marine Region, the South-east Marine Region and the South-west Marine Region.</p>
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Area of the Southern and Eastern Scalefish and Shark Fishery

JN: 63,200

Indicative map only

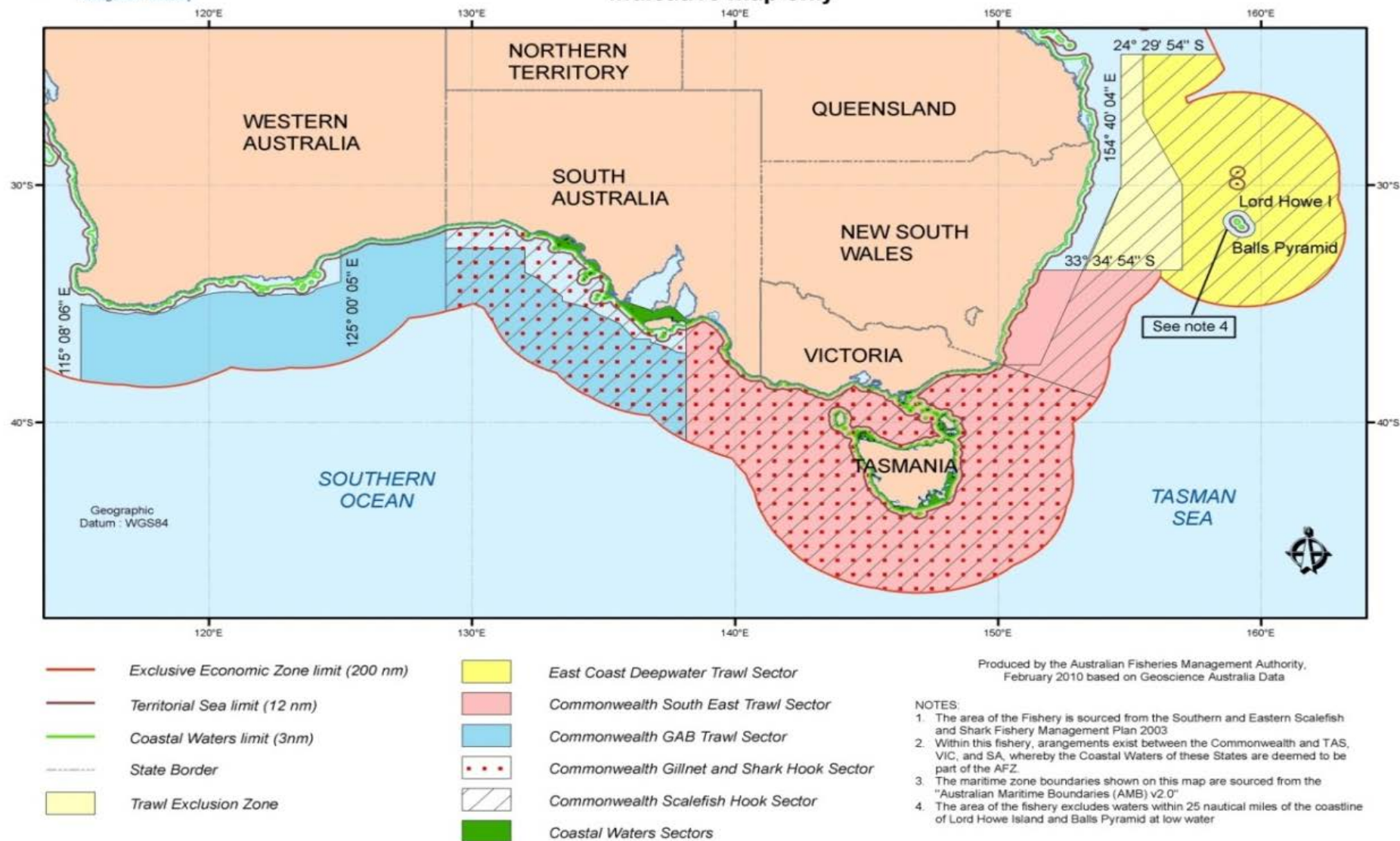


Figure 1. Area and sectors of the SESSF (source: AFMA).

Target Species	<p>As a complex, multi-sector, multi-species fishery, the SESSF has 28 key commercial species managed through annual quotas, listed below:</p> <ul style="list-style-type: none"> • alfonsino (<i>Beryx splendens</i>) • Bight redfish (<i>Centroberyx gerrardi</i>) • blue grenadier (<i>Macruronus novaezelandiae</i>) • blue warehou (<i>Seriolella brama</i>) • blue-eye trevalla (<i>Hyperoglyphe antarctica</i>) • deepwater flathead (<i>Neoplatycephalus conatus</i>) • deepwater sharks (various species) • eastern school whiting (<i>Sillago flindersi</i>) • elephantfish (<i>Callirhynchus milii</i>) • flathead (five species) • western gemfish (<i>Rexea solandri</i>) • eastern gemfish (<i>Rexea solandri</i>) • gummy shark (<i>Mustelus antarcticus</i>) • jackass morwong (<i>Nemadactylus macropterus</i>) • john dory (<i>Zeus faber</i>) • mirror dory (<i>Zenopsis nebulosa</i>) • orange roughy (<i>Hoplostethus atlanticus</i>) • oreos (various species) • pink ling (<i>Genypterus blacodes</i>) • redfish (<i>Centroberyx affinis</i>) • reef ocean perch (<i>Helicolenus</i> species) • ribaldo (<i>Mora moro</i>) • royal red prawn (<i>Haliporoides sibogae</i>) • sawsharks (<i>Pristiophorus</i> species) • school shark (<i>Galeorhinus galeus</i>) • silver trevally (<i>Pseudocaranx georgianus</i>) • silver warehou (<i>Seriolella punctata</i>) • smooth oreo (<i>Pseudocyttus maculatus</i>) <p>Key target species for each sector are:</p> <ul style="list-style-type: none"> • Commonwealth Trawl Sector - tiger flathead, pink ling, blue grenadier and silver warehou. • East Coast Deepwater Trawl Sector - alfonsino. • Gillnet, Hook and Trap Sector - gummy shark, blue-eye trevalla and pink ling. • Great Australian Bight Trawl Sector - deepwater flathead, Bight redfish and orange roughy.
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Fishery status	<p>The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) <i>Fishery status reports 2015</i> provides an assessment of fish stocks in Commonwealth fisheries, including the SESSF, using data to the end of the 2014 fishing year.</p> <p>Of the 37 stocks assessed in the fishery, the <i>Fishery status reports 2015</i> determined that 30 stocks were not subject to overfishing. These stocks include: alfonsino, Bight redfish, blue grenadier, deepwater flathead, eastern school whiting, elephantfish, flathead, western gemfish, gummy shark, jackass morwong, john dory, mirror dory, ocean jacket, ocean perch, oreos, orange roughy (eastern zone), royal red prawn, ribaldo, sawshark, silver trevally, silver warehou and smooth oreo.</p> <p>Seven target stocks were described as having uncertain stock status, where it was uncertain if the stock was overfished and/or uncertain if overfishing was ongoing. These stocks were blue-eye trevally, blue warehou, eastern gemfish, gulper sharks, pink ling, redfish and school shark.</p> <p>Stocks described as being overfished are: blue warehou, eastern gemfish, gulper sharks, orange roughy (southern and western zone), redfish and school shark. Consistent with the Commonwealth Fisheries Harvest Strategy Policy 2007, there are specific management strategies in place to rebuild all of these overfished stocks, with the exception of redfish. Redfish was first assessed as overfished in 2014, the rebuilding strategy for this species is being developed.</p> <p>There are four target stocks of orange roughy in the fishery. Two stocks (southern zone and western zone) were described as overfished but not subject to overfishing, while the Cascade Plateau and eastern zone stocks are described as not subject to overfishing.</p>
Byproduct Species	<p>Major byproduct species that are not managed under the quota system include:</p> <ul style="list-style-type: none"> • frostfish (<i>Lepidopus caudatus</i>) • Gould's squid (<i>Nototodarus gouldi</i>) • king dory (<i>Cyttus traversi</i>) • latchet (<i>Pterygotrigla polyommata</i>) • leatherjackets (various species) • ocean jacket (<i>Nelusetta ayraudi</i>) • ornate angelshark (<i>Squatina australis</i>) • red gurnard (<i>Chelidonichthys kumu</i>) • snapper (various species) • stargazers (Family Uranoscopidae)

Gear	<p>A variety of fishing methods are used in the different sectors of the SESSF, including:</p> <ul style="list-style-type: none"> • demersal otter trawl – trawl nets towed along the seabed, with a heavy otter board attached to each wing of the net to hold it open • pair trawl – two boats each towing a warp (cable) attached to one wing of the net so the mouth of the net is kept open by the distance the two boats are apart • midwater trawl – trawl nets towed in the water column above the seabed, held open by a pair of otter boards on either side attached to the wings of the net • Danish seine – a conical net with two wings and a bag in the middle that collects the fish. Draglines are attached to the wings so a large area can be fished. This method is similar to a trawl net but without otter boards and often used by two boats where the larger boat uses the warp lines to encircle the fish and herd them into the central net. • demersal longline – long fishing lines with snoods (small branch lines with hooks attached) are set along the bottom of the seafloor with an anchor or weight • demersal gillnet – a fishing net set vertically in the water column that traps fish by their gills in the mesh • dropline – a vertical hanging headline (mainline) with snoods attached that hang horizontally in the water column and a float attached to the top • trotline – a headline that runs horizontally across a channel or section of water with snoods attached that hang down in the water column • handline – a single line with one or more hooks or lures attached, most often held by a person whilst fishing, and • fish traps – a cage made of wires, rods, fishing-net or other suitable materials with the purpose of catching fish alive.
Season	<p>The SESSF is open year round. For management purposes, the fishing season commences on 1 May and closes on 30 April each year.</p>
Commercial harvest	<p>The total landing for the whole fishery in 2014 was approximately 13 989 tonnes (t).</p> <p>The 2014 catch was lower than average, with catch in preceding years between 16–20 000 t. The lower catch in 2014 was due to a drop in effort in the blue grenadier winter fishery in the Commonwealth Trawl Sector.</p> <p>Total landings by sector for the 2014 fishing season comprised:</p> <ul style="list-style-type: none"> • Commonwealth Trawl Sector – 9 310 t • Great Australian Bight Trawl Sector – 2 018 t • Gillnet, Hook and Trap Sectors – 2 661 t

Value of commercial harvest	<p>The gross value of production of the whole fishery in the 2013-14 financial years was \$72.2 million.</p> <p>By sector, the gross value of production in 2013-14 was:</p> <ul style="list-style-type: none"> • Commonwealth Trawl Sector - \$41.2 million • East Coast Deepwater Trawl Sector - n/a* • Shark Gillnet and Shark Hook Sectors (combined) - \$15.8 million • Great Australian Bight Trawl Sector - \$11 million <p>*Economic data for the East Coast Deepwater Trawl Sector in 2013-14 is confidential, as there were fewer than five vessels operating in the fishery during that period.</p>
Take by other sectors	<p>A number of target stocks in the SESSF are also caught in state fisheries. The Commonwealth Fisheries Harvest Strategy Policy 2007 requires that AFMA take account of state catches (where known) when setting the annual total allowable catch allocations for quota species.</p> <p>Recreational catch is also known to occur for many species caught in the SESSF. Popular species include flathead species, school whiting and gummy shark, although total recreational catch is difficult to quantify. State jurisdictions have responsibility for managing recreational fishing, which is generally done through licenses, size limits and bag limit restrictions.</p>
Commercial licences issued	<p>The following statutory fishing rights are allocated in the fishery:</p> <ul style="list-style-type: none"> • 57 trawl licenses • 37 scalefish licenses • 61 shark gillnet licenses • 13 shark hook licenses
Management arrangements	<p>The SESSF is managed through the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003.</p> <p>Management of the fishery is primarily through the setting of total allowable catch limits for all quota (target) species and certain non-target species, to cover incidental catch.</p> <p>The setting of total allowable catch limits is governed by decision rules outlined in the Harvest Strategy Framework for the fishery. This framework was first implemented in 2005 and was reviewed in 2007 to ensure consistency with the Commonwealth Fisheries Harvest Strategy Policy 2007. The Harvest Strategy Framework includes three tiers developed to accommodate different levels of data quality or knowledge about stocks. The target and limit reference points for each tier are consistent with the Commonwealth Fisheries Harvest Strategy Policy 2007 and all assessments generate a recommended biological catch that should move the biomass of each stock towards its target reference point. Recommended biological catch assessments are translated into total allowable catch limits through prescribed harvest control rules, which include deductions for discarding and catch by state-managed fisheries and recreational fishers.</p> <p>The Harvest Strategy Framework undergoes regular reviews through management strategy evaluations. These reviews have resulted in a series of alterations to the framework to ensure it remains consistent with the Commonwealth Fisheries Harvest Strategy Policy 2007.</p>

	<p>In 2014, there were 34 species/species groups that were managed under quota, comprising around 43 per cent of the total commercial landed catch. In order to fish in the SESSF, operators must hold a relevant fishing license which articulates the area in which they can fish, the method they are allowed to use and quota holdings for relevant species.</p> <p>While total allowable catch quotas are the main management tool in the fishery, a number of other arrangements are also used in the SESSF, including:</p> <p><u>Input controls</u></p> <ul style="list-style-type: none"> • limited entry (no new fishing licenses are created, only existing licenses can be used) • gear restrictions, including mesh size, net length, setting depth, hook limits and trap dimensions • spatial and temporal closures <p><u>Output controls</u></p> <ul style="list-style-type: none"> • trip limits for certain species • incidental catch limits • restriction or prohibition on take of protected species <p>The fishing industry also implements a number of voluntary measures in co-operation with AFMA, including voluntary closures, voluntary gear restrictions and industry Codes of Conduct.</p> <p>Parts of the SESSF operate within the Commonwealth Marine Reserve Network of the Temperate East Marine Region, the South-east Marine Region and the South-west Marine Region.</p>
Export	<p>The majority of catch in the SESSF is sold to domestic markets in Sydney, Melbourne and Perth. Export products include blue grenadier, orange roughy and shark fin.</p>
Bycatch	<p>Over 300 different species are caught in the SESSF. These include bycatch species that are non-marketable or of low value, which are generally discarded at sea. Trawling is the fishing method with the highest rates of discarding. While accurately quantifying discarded bycatch is difficult, it has been estimated to comprise 40 per cent of the weight of the total haul in some trawl sectors.</p> <p>AFMA develops and implements Bycatch and Discard Workplans for the four major sectors of the fishery. The plans address bycatch and discarding issues for species identified as high risk in the fishery's Ecological Risk Assessment (ERA) and are reviewed on a biennial basis.</p>

<p>Interaction with Protected Species¹</p>	<p>Interactions with protected species are reported in logbooks by fishers, by independent observers aboard vessels and by independent observers viewing footage from electronic monitoring (cameras). Quarterly reports of protected species interactions are published on the AFMA website and annual summaries are provided by AFMA to the Department of the Environment.</p> <p>Data on the numbers of protected species interactions recorded from 2013-2015 are shown in Table 1a. Reported interactions for a number of species appear to have increased over this three year period. However, this may be due to improved reporting rather than increased occurrence, following a series of education and extension programmes to improve logbook reporting, undertaken as part of the 2011-13 Bycatch and Discard Workplans.</p> <p>Management measures to reduce interactions with protected species, such as spatial closures, fishing gear modifications and bycatch reduction devices are under continual review, primarily through the Bycatch and Discard Workplan for each sector of the fishery. There are also prescribed handling practises for particular species, including careful mandatory release of protected shark species that are alive at retrieval, such as white sharks, porbeagle sharks and mako sharks.</p> <p>Species-specific management strategies have also been developed where required. These include the Australian Sea Lion Management Strategy, the Dolphin Strategy, the Upper-slope Dogfish Management Strategy and mandatory Seabird Management Plans for otter trawl vessels and auto longline vessels. A number of spatial closures have also been implemented for the explicit protection of some species, including:</p> <ul style="list-style-type: none"> • closures around Australian sea lion colonies • closures around identified important remnant upper-slope dogfish populations • closures in areas where dolphin interactions were high, and • depth closures to protect orange roughy and school shark. <p>Targeted management measures to mitigate risks to protected species from interacting with this fishery have been effective in reducing mortalities of protected species over the last several years. However, the ongoing impact of fishing on Australian sea lions, Australian and long-nosed fur seals, dolphins, seabirds and some shark species remains a concern. To address these concerns, a series of recommended conditions to further protect these species is at Table 4.</p> <p>Under sections 199, 214, 232 and 256 of the EPBC Act, persons who interact with a protected species must report that interaction within seven days of the incident occurring to the Department. A Memorandum of Understanding between the AFMA and the Department for the Reporting of Fisheries Interactions with Protected Species (Reporting MOU) is in place. This MOU</p>
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¹ 'Protected species' means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and listed threatened, listed marine and listed migratory species.

	streamlines reporting requirements for interactions with protected species, assisting fishers in meeting their requirements under the EPBC Act. As such, the MOU reduces the administrative reporting burden on individual fishers and provides for regular reporting of protected species interactions.
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Table 1a. Protected species interactions in the SESSF by sector, 2013–2015.

Species	CTS 2013		CTS 2014		CTS 2015*		GHaT 2013		GHaT 2014		GHaT 2015*		GABT 2013		GABT 2014		GABT 2015	
	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead	Alive	Dead
Antarctic fur seal						1												
Australian fur seal	63	54	20	72	9	59		1		2	2	1						
Australian sea lion								1			2							
Long-nosed (NZ) fur seal		1	3	1	1	1		5	1	7		1						
Seals (unidentified sp)	22	102	18	32	10	12	1		4	7	3	3			1			
Dolphins		1		3			1	8	3	22		13						
Albatrosses	2	30**		14	1	5	2	1	2	1	2	1						2
Shy albatrosses						3					1							
Cormorants										3								
Pacific gull		1																
Petrels, prions and shearwaters	3	11		1		1	2	13	2	21	3	12						1
Basking shark						1												
Grey nurse shark																		
Longfin mako												57						
Shortfin mako		10	1	3		10		122		153		70						
Porbeagle								7		9								
White shark	2						3	3	23	5	9	4						
Seahorses & pipefish		81																
Total	92	291	42	126	21	93	9	161	35	230	22	149			1			3

*2015 data are confirmed Jan– Sept, preliminary data only from Sept–December

**10 of these albatross mortalities occurred during trials of new seabird mitigation devices

Ecosystem Impacts	<p>The Marine Bioregional Plan for the Temperate East Marine Region 2012 and the Marine Bioregional Plan for the South-west Marine Region 2012 identify a number of key ecological features present in the area of the SESSF. The extraction of living resources and bycatch by commercial fisheries have been identified as pressures of potential concern to some of these key ecological features. However, the plans also note that these assessments are conservative in the context of active fisheries management, particularly when fisheries are managed at an ecosystem level, as in the SESSF.</p> <p>The marine bioregional plans also list physical habitat modification as being of potential concern to some key ecological features that are found within the area of the SESSF. This is a concern where these features are either subject to bottom trawl activities or are inherently vulnerable to habitat disturbance, including shelf rocky reefs and the canyons on the eastern continental slope. Demersal trawling in the fishery has the potential to modify benthic habitats because it involves the removal, modification or disturbance of seabed flora and fauna.</p> <p>The risks that the SESSF poses to the sustainability of the marine ecosystems in which it operates have been investigated through a series of ERAs. Actions to address these risks are described in Ecological Risk Management (ERM) reports for each sector, which are published on the AFMA website. While the majority of ecological risk management actions implemented to date have been species based, future reviews of the ERA and ERM process are expected to expand in focus to include impact on marine habitats and communities that may be impacted by fishing.</p>
Impacts on CITES species	<p>The assessment also considered the possible impacts on shark species harvested in the SESSF which are listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). These species are:</p> <ul style="list-style-type: none"> • ‘hammerhead sharks’, comprising: <ul style="list-style-type: none"> • scalloped hammerhead shark (<i>Sphyrna lewini</i>) • great hammerhead shark (<i>S. mokarran</i>) • smooth hammerhead shark (<i>S. zygaena</i>) • oceanic whitetip (<i>Carcharinus longimanus</i>), and • porbeagle shark (<i>Lamna nasus</i>) <p>As a party to the Convention, Australia must apply all CITES provisions of the EPBC Act to imports and exports of CITES listed species as appropriate. Under these provisions, export of CITES specimens may only occur where a permit, supported by a non-detriment finding, has been issued by the CITES Scientific Authority of the country of export.</p> <p>In 2014, the CITES Scientific Authority of Australia made a non-detriment finding for the take of hammerhead shark species in Australia. Ongoing take of hammerhead sharks in the SESSF remains within the levels considered in</p>

	<p>2014, reportedly < 10 t annually of smooth hammerhead sharks and < 1 t annually of scalloped hammerhead sharks. Logbook records indicate some historic catch of great hammerhead sharks may have occurred, however accurate species identification was not confirmed. Ongoing take of these three hammerhead species at these low levels in the SESSF is not considered to represent a significant impact to these species.</p> <p>Logbook records indicate some historic catch of oceanic whitetip sharks may have occurred in the fishery, although ongoing take is likely to be negligible due to limited overlap of this species' preferred habitat with fishing effort in the SESSF. The 2014 assessment of this species by the CITES Scientific Authority of Australia found that oceanic whitetip sharks were at risk of overfishing from international tuna longline fisheries, therefore a finding of non-detriment could not be made and no export of this species can be permitted.</p> <p>There is very limited catch of porbeagle sharks in the SESSF (Table 1a). The 2014 non-detriment finding concluded that ongoing minimal take of this species was unlikely to be detrimental, however as porbeagle sharks are a listed migratory species under Part 13 of the EPBC Act. Porbeagle sharks may not be targeted in the SESSF and can only be retained if already dead at retrieval.</p>
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Table 2: Progress in implementation of conditions and recommendations made in the 2013 assessment of the Southern and Eastern Scalefish and Shark Fishery (SESSF)

Condition	Progress	Recommended Action
1. Operation of the Southern and Eastern Scalefish and Shark Fishery will be carried out in accordance with the management arrangements in force under the <i>Fisheries Management Act 1991</i>	The Australian Fisheries Management Authority (AFMA) has advised that the fishery has continued to operate in accordance with the management arrangements in force under the <i>Fisheries Management Act 1991</i> (FMA).	The Department of the Environment considers that this condition has been met. The Department considers that a new approved wildlife trade operation declaration for the SESSF specify a similar condition (see Condition 1, Table 4).
2. The Australian Fisheries Management Authority to inform the Department of Sustainability, Environment, Water, Population and Communities (the department) of any proposed substantive changes to the Southern and Eastern Scalefish and Shark Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.	<p>The Department of the Environment has been informed of all relevant intended management changes as they occurred.</p> <p>AFMA is currently in the process of making minor amendments to the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003. The amendments include:</p> <ul style="list-style-type: none">• the granting of statutory fishing rights to owners of individual transferable quota units on a one to one basis• updating the scientific names of several species• simplifying under-catch provisions, and• removing redundant provisions relating to historic season dates. <p>The Department has determined that the amendments are minor and administrative in nature and that no further actions are required.</p>	<p>The Department of the Environment considers that this condition has been met.</p> <p>The Department considers that a new approved wildlife trade operation declaration for the SESSF specify a similar condition (see Condition 2, Table 4).</p>

Condition	Progress	Recommended Action
<p>3. The Australian Fisheries Management Authority to produce and present reports to the department annually, as per Appendix B to the Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition.</p>	<p>AFMA has continued to produce reports on an annual basis. The annual reports contain the necessary information required by the Australian Government <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i>.</p>	<p>The Department of the Environment considers that this condition has been met.</p> <p>The Department considers that a new approved wildlife trade operation declaration for the SESSF specify a similar condition (see Condition 3, Table 4).</p>
<p>4. The Australian Fisheries Management Authority to ensure that there is sufficient ongoing fishery independent monitoring effort to reliably understand and evaluate the nature and level of impacts of fishing on threatened and protected species. Monitoring effort must be representative of each sector of the fishery across all gear and vessel types, with particular focus on locations where fishing effort is increasing or new gear types are being used.</p>	<p>AFMA has implemented a range of measures based on fisheries dependant and independent data to gather information in the fishery. These measures include:</p> <ul style="list-style-type: none"> • logbooks (including electronic) • catch disposal records • vessel monitoring systems • observer integrated scientific and monitoring program • fishery independent surveys. <p>AFMA has advised the Department that e-monitoring was implemented on all full time gillnet and demersal logline boats in 2015. In addition, AFMA is undertaking a number of research projects to improve monitoring in the SESSF.</p>	<p>The Department of the Environment considers that the condition has been met over the period of the last assessment and understands that AFMA intends to continue this high standard of monitoring.</p>

Condition	Progress	Recommended Action
<p>5. The Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a) implement long-term management measures, including fisheries closures and other actions, that are clearly directed towards stopping the decline and supporting the recovery of Harrison's dogfish and southern dogfish, and b) continue, in consultation with relevant experts, to monitor and review the adequacy of management measures designed to stop the decline and support the recovery of Harrison's dogfish and southern dogfish. 	<p>The Upper-slope Dogfish Management Strategy has been in place in the fishery since 2012. This was developed in consultation with the Threatened Species Scientific Committee.</p> <p>As part of the dogfish management strategy AFMA developed the Research and Monitoring Workplan 2014 – 2016. This workplan outlines how information will be collected to assess the effectiveness of the management strategy and lists a number of performance indicators and monitoring mechanisms that are used to ensure that the management strategy is fulfilling its objectives.</p> <p>In 2015, following advice from CSIRO that post-release survival for upper slope dogfish caught using power handlines was high, AFMA removed the trigger limit move on provisions that had previously applied to this method.</p>	<p>The Department of the Environment considers that this condition is ongoing.</p> <p>The Department considers that a new approved wildlife trade operation declaration for the SESSF specify a similar condition (see Condition 4, Table 4).</p>

Condition	Progress	Recommended Action
<p>6. The Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a) ensure that management measures are in place to meet the objectives of the rebuilding strategies for species listed as conservation dependent under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>, and b) continue to evaluate and report to the department on the effectiveness of rebuilding strategies for conservation dependent listed species. 	<p>Management strategies are in place for all conservation dependent species in the fishery. A research project investigating the use of close kin genetics to obtain an index of abundance of school shark is currently underway.</p> <p>AFMA has indicated that a close kin genetics project may also be a possibility for both blue warehou and eastern gemfish. An updated eastern gemfish stock assessment is planned for 2016.</p> <p>In 2014/15 AFMA undertook reviews of the rebuilding strategies for orange roughy, eastern gemfish, school shark and blue warehou. Revised rebuilding timeframes were incorporated into the strategies along with a number of other management measures.</p> <p>AFMA has provided the Department and the Threatened Species Scientific Committee with regular updates on its progress against rebuilding strategies.</p>	<p>The Department of the Environment considers that this condition has been met and is ongoing. Since the 2013 assessment of the fishery, two dogfish species have been listed as conservation dependant. Any reviews of the effectiveness of rebuilding strategies should also include similar updates on the effectiveness of relevant management strategies.</p> <p>The Department considers that a new approved wildlife trade operation declaration for the SESSF specify a similar condition (see Condition 4, Table 4).</p>

Part 13 Conditions	Progress	Recommended Action
<p>Condition A:</p> <p>The Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a) maintain management measures clearly directed toward limiting the impact of fishing activity on Australian sea lions to levels which will assist in enabling the recovery of the species, including all subpopulations. b) In consultation with marine mammal experts, continue to monitor and review on an annual basis the adequacy of its Australian sea lion management measures 	<p>Strong management measures to protect Australian sea lions have been maintained. The Australian Sea Lion Management Strategy was updated in July 2015 to include new closure areas and trigger limits for each zone, reflecting management arrangements that had been in place since May 2013. The updated strategy is available on AFMA's website.</p> <p>There is 100 per cent independent monitoring for gillnetting effort in waters offshore of South Australia. The Shark Resource Assessment Group continues to monitor the effectiveness of the strategy in consultation with marine mammal experts.</p> <p>In January 2016, Australian Sea Lion Management Zone C was closed after two Australian sea lion mortalities occurred in December 2015, the first closure since 2012.</p>	<p>The Department of the Environment considers that this condition is ongoing.</p> <p>The Department considers that a new Part 13 accreditation for the SESSF specify a similar condition (see Part 13 Condition A, Table 4).</p>

Part 13 Conditions	Progress	Recommended Action
<p>Condition B:</p> <p>The Australian Fisheries Management Authority to determine the extent of the impact of fishing on dolphins, including identifying the species impacted, and develop appropriate management measures to minimise the impact. This should include ongoing monitoring and appropriate review of these measures, in consultation with marine mammal experts.</p>	<p>Following an increase of dolphin mortalities in gillnets offshore off of the Coorong in 2011, an area was temporarily closed to gillnet fishing by AFMA, with gillnet fishing in adjacent waters requiring 100 per cent monitoring by observers or e-monitoring systems.</p> <p>In September 2014, AFMA implemented the first stage of its <i>Dolphin Strategy – minimising gillnet bycatch</i> (AFMA 2014) for gillnet fishers in the SESSF. The strategy allows operators to re-enter the Coorong zone and focuses on individual responsibility to reduce the risk of dolphin bycatch, i.e. requiring gillnet vessels to develop individual measures to minimise dolphin bycatch and remain within defined bycatch performance indicators.</p> <p>Should bycatch performance measures not be met whilst fishing in the zone, spatial closures are applied on a vessel-specific basis. Reported dolphin interactions in the fishery decreased to 19 in 2014 and 30 in 2015 from a high of 50 in 2011, following the implementation of these measures.</p> <p>AFMA will continue to collect information on the nature of dolphin interactions to help assess the effectiveness of mitigation strategies (gear or deployment modifications and fishers' behavioural adaptations). Key research priorities include studies to determine which acoustic mitigation options (pingers) are best suited for use in the gillnet sector of the SESSF, along with surveys to determine patterns of dolphin distribution and abundance.</p>	<p>The Department considers that this condition is ongoing.</p> <p>The Department considers that a new Part 13 accreditation for the SESSF specify a similar condition (see Part 13 Condition B, Table 4).</p>

Part 13 Conditions	Progress	Recommended Action
<p>Condition C:</p> <p>The Australian Fisheries Management Authority to continue to develop and implement management measures to minimise mortality of seals in the Commonwealth Trawl Sector of the fishery.</p>	<p>AFMA continues to investigate measures to mitigate seal mortality in the Commonwealth Trawl Sector of the SESSF. A project investigating whether shortened codends could reduce seal bycatch showed no significant difference between the industry standard length codend and the modified shortened codend.</p> <p>AFMA has collaborated with the South East Trawl Fishery Industry Association to work with students from the Australian Maritime College to develop alternative seal mitigation designs and is giving consideration to trialling the winning design.</p>	<p>The Department considers that this condition is ongoing.</p> <p>The Department considers that a new Part 13 accreditation for the SESSF specify a similar condition (see Part 13 Condition C, Table 4).</p>
<p>Condition D:</p> <p>The Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a) ensure efficient and effective Seabird Management Plans remain in place for vessels in the fishery using otter trawl gear b) consider the introduction of Seabird Management Plans for other methods of fishing to reduce the risk of seabird interactions c) continue to investigate methods for improving data collection on seabird interactions, particularly 	<p>AFMA has advised that all trawl vessels are required to have a Seabird Management Plan (SMP) in place.</p> <p>In 2014, SMPs were developed for all active auto longline vessels in the fishery and from 1 September 2014, a requirement for 100 per cent monitoring was also introduced.</p> <p>AFMA continues to investigate methods for improving data collection on seabird interactions. Observer protocols introduced in late 2011 which collected details on seabird interactions during every shot are currently being reviewed.</p> <p>AFMA has approved two additional mitigation devices to help further reduce interactions, a seabird sprayer and a bird baffler. Measures to manage offal disposal are in place for trawl, gillnet and line methods.</p>	<p>The Department considers that this condition is ongoing (see Recommendation 1, Table 4).</p>

Part 13 Conditions	Progress	Recommended Action
<p>interactions with trawl gear and longlines, and</p> <p>d) implement management measures to ensure seabird mortality in all sectors of the fishery is minimised. Where appropriate, this should include implementing offal management measures that have been demonstrated to be highly effective in reducing seabird mortality.</p>		

Recommendation	Progress	Recommended Action
<p>1. The Australian Fisheries Management Authority to determine the extent of the impact of fishing on non target shark species, including seeking to identify the species impacted, and develop appropriate management measures to mitigate the impact for shark species that are identified through the Ecological Risk Assessment process and protected species listing processes</p>	<p>AFMA has developed Bycatch and Discarding Workplans for all sectors of the SESSF for 2014-16, which include several projects to determine the impact of fishing on non-target species and to mitigate against further bycatch. In addition, a deepwater shark and skate identification guide has been produced for distribution to operators in early 2016. The guide should assist fishers to correctly identify deepwater species that are commonly misidentified or often unable to be identified down to the species level.</p> <p>AFMA is working with industry to trial a gulper shark (dogfish) excluder device on royal red prawn trawl vessels. These trials have included underwater cameras attached to all tows to monitor the performance of the device, along with determining what species the gear is interacting with.</p>	<p>The Department of the Environment considers that this recommendation is ongoing (see Recommendation 1, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>2. The Australian Fisheries Management Authority to continue to undertake Ecological Risk Assessments and implement appropriate management responses to address and mitigate risks and impacts for species that are identified as high risk. Following reviews of the Ecological Risk Assessments and Ecological Risk Management frameworks for all sectors in the fishery in 2012, the Australian Fisheries Management Authority to provide updated ERA and ERM reports to the department.</p>	<p>A review of the ecological risk assessment (ERA) was recently completed for the SESSF.</p> <p>In addition, in consultation with the management advisory committee and research advisory groups, AFMA developed an ecological risk management strategy. The strategy provided detailed mitigation options and plans to reduce the impacts of fishing on high risk species.</p> <p>The strategy was finalised and implemented in mid 2015.</p>	<p>The Department of the Environment considers that this recommendation is ongoing (see Condition 5, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>3. At the expiry of the Bycatch and Discard Workplan in place for each sector of the fishery, The Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a) implement new work plans to reduce bycatch and discards in each sector, and b) provide an evaluation of the performance of each plan to the department within six months of expiry 	<p>AFMA has advised the Department that the Bycatch and Discard Workplans for the Great Australian Bight Trawl Sector, Commonwealth Trawl Sector and the Gillnet, Hook and Trap Sector were updated in 2014 (work plans are updated every 2 years). Reports on progress against actions described in the workplans are completed at 6, 12 and 18 month intervals.</p>	<p>The Department of the Environment considers that the recommendation has been met and that AFMA should continue to ensure work plans are updated and performance of work plans evaluated.</p>
<p>4. The Australian Fisheries Management Authority to continue to pursue and report on collaborative and complementary management of shared Southern and Eastern Scalefish and Shark Fishery stocks with relevant fisheries management agencies.</p>	<p>AFMA has ongoing discussions with fisheries agencies in NSW, Victoria, South Australia, Tasmania and Western Australia regarding management arrangements for shared stocks. AFMA is currently liaising with these states over a range of issues, including arrangement for snapper in Victoria and South Australia, pink ling and eastern gemfish stocks with NSW and the ongoing arrangements in the Gillnet, Hook and Trap Sector with South Australia, Tasmania and Victoria.</p>	<p>The Department of the Environment considers that the recommendation has been met and that AFMA should continue to pursue collaborative management arrangements.</p>

Table 3: The Department of the Environment’s assessment of the Southern and Eastern Scalefish and Shark Fishery (SESSF) against the requirements of the EPBC Act related to decisions made under Part 13 and Part 13A.

Please Note – the table below is not a complete or exact representation of the EPBC Act. It is intended as a summary of relevant sections and components of the EPBC Act to provide advice on the fishery in relation to decisions under Parts 13 and Part 13A. A complete version of the EPBC Act can be found at <http://www.comlaw.gov.au/>.

Part 13

Division 1 Listed threatened species Section 208A Minister may accredit plans or regimes	The Department’s assessment of the SESSF
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(a) a plan of management within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy 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; and</p>	<p>The SESSF will be managed under the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 (the Management Plan), in force under the <i>Fisheries Management Act 1991</i>.</p> <p>The Management Plan was last accredited in February 2013. The management arrangements relating to mitigating the impact of fishing on threatened species in the fishery have continued to improve since this accreditation was granted.</p> <p>Management measures that specifically seek to mitigate the impact of the fishery on listed threatened species, including Australian sea lions, threatened seabirds and white sharks, are summarised in Table 1 with measures explicitly documented in the Australian Sea Lion Management Strategy and mandatory Seabird Management Plans on trawl and auto longline vessels.</p> <p>Subject to these measures remaining in place (as required by Conditions A and D, Table 4), the Department considers that the management regime continues to require persons fishing in accordance with the regime to take all reasonable steps to ensure listed threatened species are not killed or injured as a result of fishing.</p>

<p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the survival or recovery in nature of the species.</p>	<p>While the SESSF is known to interact with some listed threatened species (including Australian sea lions, white sharks and seabird species) evidence suggests that these interactions are low under the current arrangements.</p> <p>AFMA has in place management strategies, including the Australian Sea Lion Management Strategy, which has objectives to support the recovery of listed threatened species.</p> <p>Given the current measures in place in the fishery, summarised in Table 1, the Department considers the current operation of the SESSF is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>
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Part 13 (cont.)

Division 2 Migratory species Section 222A Minister may accredit plans or regimes	The Department's assessment of the SESSF
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(a) a plan of management within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed migratory species or a population of that species.</p>	<p>The SESSF will be managed under the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 (the Management Plan), in force under the <i>Fisheries Management Act 1991</i>.</p> <p>The Management Plan was last accredited in February 2013. The management arrangements relating to mitigating the impact of fishing on listed migratory species in the fishery have continued to improve since this accreditation was granted.</p> <p>Management measures to protect listed migratory species are continually being refined. Current measures are listed in Table 1 and include mandatory Seabird Management Plans on trawl and auto longline vessels and the actions articulated in the Bycatch and Discard Work Plans for each sector of the fishery.</p> <p>Subject to these measures remaining in place (as required by Conditions D and 5, Table 4), the Department considers that the management regime continues to require persons fishing in accordance with the regime to take all reasonable steps to ensure listed migratory species are not killed or injured as a result of fishing.</p> <p>While the SESSF is known to interact with listed migratory species (including white sharks, porbeagle sharks, shortfin mako sharks and seabird species), the Department considers the operation of the fishery is not likely to adversely affect the conservation status of a listed migratory species or a population of that species as long as the current, effective management measures remain in place.</p>

Division 3 Whales and other cetaceans Section 245 Minister may accredit plans or regimes	The Department's assessment of the SESSF
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(a) a plan of management within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a species of cetacean or a population of that species.</p>	<p>The SESSF will be managed under the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 (the Management Plan), in force under the <i>Fisheries Management Act 1991</i>.</p> <p>The Management Plan was last accredited in February 2013. The management arrangements relating to mitigating the impact of fishing on cetaceans in the fishery have continued to improve since this accreditation was granted.</p> <p>Management measures to protect cetacean species are continually being refined. Current measures are listed in Table 1 and Table 4 and include AFMA's <i>Dolphin Strategy – minimising gillnet bycatch</i> (AFMA 2014) which focuses on the development of vessel-specific measures to minimise dolphin bycatch and requires each vessel to remain within defined bycatch performance criteria. Additional actions are articulated in the Bycatch and Discard Work Plans for each sector of the fishery.</p> <p>Subject to these measures remaining in place (as required by Condition B (Table 4), the Department considers that the management regime continues to require persons fishing in accordance with the regime to take all reasonable steps to ensure cetaceans are not killed or injured as a result of fishing.</p> <p>While some sectors of the SESSF are known to interact with cetaceans (dolphin species) evidence suggests that these interactions are low under the current arrangements. Therefore, the Department considers the operation of the fishery is not likely to adversely affect the conservation status of a cetacean or a population of that species as long as the current, effective management measures remain in place.</p>

Part 13 (cont.)

Division 4 Listed marine species Section 265 Minister may accredit plans or regimes	The Department's assessment of the SESSF
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(a) a plan of management within the meaning of section 17 of the <i>Fisheries Management Act 1991</i>;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed marine species or a population of that species.</p>	<p>The SESSF will be managed under the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 (the Management Plan), in force under the <i>Fisheries Management Act 1991</i>.</p> <p>The Management Plan was last accredited in February 2013. The management arrangements relating to mitigating the impact of fishing on listed marine species in the fishery have continued to improve since this accreditation was granted.</p> <p>Management measures to protect listed marine species are continually being refined. Current measures are listed in Table 1 and Table 4 and include mandatory Seabird Management Plans on trawl vessels and auto longliners, bycatch reduction devices, and additional actions articulated in the Bycatch and Discard Work Plans for each sector of the fishery.</p> <p>Subject to these measures remaining in place (as required by Conditions C and D, Table 4), the Department considers that the management regime continues to require persons fishing in accordance with the regime to take all reasonable steps to ensure listed marine species are not killed or injured as a result of fishing.</p> <p>While the SESSF is known to interact with some listed marine species (including pinnipeds, syngnathids and seabird species), the Department considers the operation of the fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species as long as the current, effective management measures remain in place.</p>

Part 13 (cont.)

Section 303AA Conditions relating to accreditation of plans, regimes and policies	The Department's assessment of the SESSF
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	The Department recommends that the management regime for the SESSF be accredited under sections 208A, 222A, 245 and 265.
<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>To satisfy the requirements of section 208A, 222A, 245 and 265 we recommend that the SESSF be accredited under Part 13 subject to conditions that requires the Australian Fisheries Management Authority to:</p> <ul style="list-style-type: none"> a) maintain management measures clearly directed toward limiting the impact of fishing activity on Australian sea lions to levels which will assist in enabling the recovery of the species, including all subpopulations b) continue to monitor and review the adequacy of its Australian sea lion management measures, in consultation with marine mammal expert c) continue to collect and report on dolphin interactions, where possible to species level, and continue to refine management measures to minimise the bycatch of dolphins in gillnets. This should include ongoing monitoring and review of these measures, in consultation with marine mammal experts. d) continue to work with industry and relevant experts to develop and implement management measures to minimise mortality of seals in the Commonwealth Trawl Sector of the fishery. e) ensure efficient and effective Seabird Management Plans remain in place for Commonwealth Trawl Sector and Gillnet Hook and Trap sector automatic longline vessels. f) ensure adequate monitoring is in place to ensure compliance with Seabird Management Plans, and

	<p>g) implement management measures to address the risk of interactions with seabirds in the Commonwealth Trawl Sector and for Gillnet Hook and Trap sector automatic longline vessels. This should include implementing bycatch devices and/or offal management measures that have been demonstrated to be highly effective in reducing seabird mortality.</p> <p>The Part 13 instrument for the SESSF specifies these conditions.</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.	

Part 13A

Section 303BA Objects of Part 13A

(1) The objects of this Part are as follows:

- (a) to ensure that Australia complies with its obligations under CITES² 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.

² Convention on International Trade in Endangered Species of Wild Fauna and Flora

Part 13A

Section 303 CG Minister may issue permits (CITES species)	The Department's assessment of the SESSF
<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 ii. the recovery in nature of any taxon to which the specimen belongs; or 	<p>Given the SESSF's management arrangements in place to monitor and control the level of harvest of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) species and noting the level of CITES species being exported from the fishery, the Department considers that the fishery will not be detrimental to the survival of any taxon to which the CITES specimen belongs in the short to medium term. A condition on the wildlife trade operation (Condition 3, Table 4) declaration for the SESSF includes annual reporting requirements, which will allow the Department to monitor the CITES specimens harvested in the fishery.</p> <p>CITES shark species harvested from the fishery (smooth hammerhead sharks and scalloped hammerhead sharks) are not considered to be overfished in Australia, as concluded by the <i>Non-Detriment Finding for the export of CITES-listed shark species harvested from Australian waters: Sphyrna lewini (scalloped hammerhead shark), Sphyrna mokarran (great hammerhead shark), Sphyrna zygaena (smooth hammerhead shark), Lamna nasus (porbeagle shark), Carcharhinus longimanus (oceanic whitetip shark)</i>.</p> <p>Management arrangements in place to control harvest include limits on all fishing effort through limited entry, gear restrictions and spatial closures, with specific trigger limits for smooth hammerhead sharks in the shark gillnet sector of the Gillnet, Hook and Trap Sector.</p>

<p>iii. any relevant ecosystem (for example, detriment to habitat or biodiversity).</p>	<p>Two additional CITES-listed species occasionally caught as bycatch in the SESSF (porbeagle sharks and oceanic whitetip sharks) are not eligible for consideration for export permits.</p> <p>Recognising that harvest of CITES listed species in the SESSF is incidental and there are management measures in place to mitigate interactions with these species where possible, the potential for the harvest of these species to impact unacceptably and unsustainably on any relevant ecosystem generally is considered quite low.</p>
Section 303DC Minister may amend list	The Department's assessment of the SESSF
<p>(1) Minister may, by instrument published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <ul style="list-style-type: none"> (a) including items in the list; (b) deleting items from the list; or (c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or (d) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or (e) correcting an inaccuracy or updating the name of a species. 	<p>The Department recommends that specimens derived from species harvested in the SESSF, other than specimens that belong to species listed under Part 13 of the EPBC Act (with the exception of specimens listed as conservation dependent), be included in the list of exempt native specimens while the SESSF is subject to a declaration as an approved wildlife trade operation.</p>
<p>(1A) In deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>The impacts of actions under the operations of the SESSF were assessed under Part 10 of the EPBC Act in May 2007. That assessment concluded that actions approved or taken in accordance with the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003, as amended by the Southern and Eastern Scalefish and Shark Fishery Management Plan Amendment 2006 (No. 2), would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area. Consequently, this plan was accredited under section 33 of the EPBC Act.</p>

<p>(1C) The above does not limit the matters that may be taken into account in deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery.</p>	<p>It is not possible to list exhaustively the factors that you may take into account in amending the list of exempt native specimens. The objects of Part 13A, which are set out above this table, provide general guidance in determining factors that might be taken into account. A matter that is relevant to determining whether an amendment to the list is consistent with those objects is likely to be a relevant factor.</p> <p>The Department considers that the amendment of the list of exempt native specimens to include product taken in the SESSF wildlife trade operation would be consistent with the provisions of Part 13A (listed above) as:</p> <ul style="list-style-type: none"> ▪ 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 SESSF is unlikely to be unsustainable and threaten biodiversity within the next three 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.
<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <ul style="list-style-type: none"> (a) must consult such other Minister or Ministers as the Minister considers appropriate; and (b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and (c) may consult such other persons and organisations as the Minister considers appropriate. 	<p>The Department considers that the consultation requirements have been met.</p> <p>On 10 August 2004, the then Minister for the Environment and Heritage wrote to all fisheries ministers seeking their views on inclusion of product derived from commercial fisheries in the list of exempt native specimens, while subject to declaration as approved wildlife trade operations. Responses in support of the proposal were received from all state and territory fisheries ministers and the Commonwealth minister.</p> <p>The application from the AFMA was released for public comment from 10 December 2015 to 18 January 2016. The public comment notice sought comment on:</p>

	<ul style="list-style-type: none"> the proposal to amend the list of exempt native specimens to include product derived from the SESSF, and AFMA's application for the SESSF. <p>Three public submissions were received and considered, along with a response from AFMA on the comments. All three submissions acknowledged management improvements made in this fishery in recent years.</p> <p>Additional concerns that have been considered in the assessment are:</p> <ul style="list-style-type: none"> status of Australian sea lion populations (ongoing measures to protect this species from the impact of fishing addressed in Condition A, Table 4) ongoing concerns about dolphin interactions (ongoing measures to protect dolphins from the impact of gillnet fishing addressed in Condition B, Table 4) ongoing concerns about seal interactions (ongoing measures to protect seals from the impact of gillnet fishing addressed in Condition C, Table 4) ongoing concerns about seabird interactions (ongoing measures to protect seabirds from the impact of gillnet fishing addressed in Condition D, Table 4) concerns about changes to management arrangements for upper-slop dogfish (ongoing measures to protect upper-slope dogfish from the impact of all fishing addressed in Condition 4, Table 4) high levels of interaction and bycatch of shortfin makos and white sharks and the need for additional mitigation measures (a recommendation for more work to determine risk to non-target shark species, including shortfin makos is at Recommendation 1, Table 4)
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	<ul style="list-style-type: none"> • concern that the environmental risk assessment for line caught gummy shark in the Gillnet, Hook and Trap Sector being incomplete (AFMA has advised that has been done and will be published soon) • recommend development of handling practises for grey nurse sharks (not accepted, as there have been no recorded interactions with this species since 2013) • lack of appropriate measures of abundance for species under rebuilding strategies (while this is a good suggestion, a formal recommendation has not been made at this time as AFMA has commenced a process to address this) • recommendation for a more precautionary approach to the management of orange roughy (not accepted, as ongoing measures to ensure rebuilding of orange roughy and other conservation dependent species appear to be effective. Continuation of these measures is prescribed by Condition 4, table 4), and • potential issues regarding discarded trawl nets and rope fragments and the impacts on seals (a recommendation to promote best practise waste management at sea is at Recommendation 1, Table 4)
(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.	The instrument for the SESSF made under section 303DC will be gazetted and made available through the Department's website.

Section 303FN Approved wildlife trade operation	The Department's assessment of the SESSF
(2) The Minister may, by instrument published in the <i>Gazette</i> , declare that a specified wildlife trade operation is an <i>approved wildlife trade operation</i> for the purposes of this section.	
<p>(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is satisfied that:</p> <p>(a) the operation is consistent with the objects of Part 13A of the Act; and</p>	<p>The Department considers that the operation of the SESSF is consistent with the objects of Part 13A (listed above) as:</p> <ul style="list-style-type: none"> ▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1). Completion of Condition 5 (see Table 4) will be an important factor in meeting this requirement. ▪ the operation of the fishery during the period of the recommended declaration as an approved wildlife trade operation is unlikely to be unsustainable and threaten biodiversity. Completion of Condition 4 will be an important factor in meeting this requirement, and ▪ the EPBC Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.

<p>(b) the operation will not be detrimental to:</p> <ol style="list-style-type: none"> i. the survival of a taxon to which the operation relates; or ii. the conservation status of a taxon to which the operation relates; and <p>(ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and</p>	<p>The Department considers that the SESSF will not be detrimental to the survival or conservation status of a taxon to which it relates within the next three years, or threaten any relevant ecosystem, given the management measures currently in place, (see Table 1), which include:</p> <ul style="list-style-type: none"> ▪ total allowable catch limits informed by regular stock assessments and subject to a Harvest Strategy Framework that functions in accordance with the Commonwealth Fisheries Harvest Strategy Policy Framework 2007 ▪ spatial and temporal closures to reduce fishing pressure where required on target and non-target stocks (including protected species) ▪ limited entry to the fishery ▪ vessel and gear restrictions ▪ statistically robust levels of observer coverage ▪ regular ecological risk assessments and management responses to address any identified risks, ▪ rebuilding strategies for stocks listed as conservation dependent or assessed as overfished, and ▪ the <i>Non-Detriment Finding for the export of CITES-listed shark species harvested from Australian waters: Sphyrna lewini (scalloped hammerhead shark), Sphyrna mokarran (great hammerhead shark), Sphyrna zygaena (smooth hammerhead shark), Lamna nasus (porbeagle shark), Carcharhinus longimanus (oceanic whitetip shark)</i>
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<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>The Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) do not specify fish as a class of animal in relation to the welfare of live specimens.</p> <p>No other conditions are specified in relation to commercial fisheries in the EPBC Regulations.</p>
<p>(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and</p>	<p>The marine bioregional plans for the Temperate East Marine Region and South-west Marine Region note that extraction of living resources, bycatch and physical modification of habitat by trawling have been identified as pressures on key ecological features in areas of the Commonwealth marine environment in which the fishery operates.</p> <p>However, these pressures have been assessed as being ‘of potential concern’ only. The plans also note that these assessments are conservative in the context of active fisheries management, particularly when fisheries are managed at an ecosystem level, as in the SESSF.</p> <p>The Department considers that the SESSF will not have a significant impact on an ecosystem, given the management measures currently in place (see Table 1), which include:</p> <ul style="list-style-type: none"> ▪ total allowable catch limits informed by regular stock assessments and subject to a Harvest Strategy Framework that functions in accordance with the Commonwealth Fisheries Harvest Strategy Policy Framework 2007

<p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<ul style="list-style-type: none"> ▪ spatial and temporal closures to reduce fishing pressure where required on target and non-target stocks (including protected species) ▪ limited entry to the fishery ▪ vessel and gear restrictions ▪ statistically robust levels of observer coverage ▪ regular ecological risk assessments and management responses to address any identified risks ▪ rebuilding strategies for stocks listed as conservation dependent or assessed as overfished, and ▪ the <i>Non-Detriment Finding for the export of CITES-listed shark species harvested from Australian waters: Sphyrna lewini (scalloped hammerhead shark), Sphyrna mokarran (great hammerhead shark), Sphyrna zygaena (smooth hammerhead shark), Lamna nasus (porbeagle shark), Carcharhinus longimanus (oceanic whitetip shark)</i> <p>The management arrangements that will be employed for the SESSF are likely to be effective. All target species and significant non-target byproduct species are managed under total allowable catch quotas, which are informed by scientifically determined recommended biological catch limits, in accordance with the Commonwealth Fisheries Harvest Strategy Policy. There are management strategies in place to mitigate the impact of the fishery on protected species and rebuilding strategies in place to recover overfished stocks. Statistically robust monitoring programs are also in place. In addition, gear restrictions are employed as well as spatial and temporal restrictions, to further mitigate the impact of fishing on particular target and non-target species, including protected species.</p>
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<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>The SESSF will be managed under the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003 (the Management Plan), in force under the <i>Fisheries Management Act 1991</i>.</p> <p>The Commonwealth <i>Fisheries Management Act 1991</i> applies throughout Commonwealth waters.</p> <p>After evaluation of the fishery management measures in place for this fishery, summarised in Table 1, the Department considers that the legislation enforcing these measures throughout the fishery is likely to be effective.</p>
<p>(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, and only if, the operation is an operation for the taking of specimens and:</p> <p>(d) the operation is a commercial fishery.</p>	<p>The SESSF is a commercial fishery.</p>

<p>(10A) In deciding whether to declare that a commercial fishery is an approved wildlife trade operation for the purposes of this section, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>The impacts of actions under the operations of the SESSF were assessed under Part 10 of the EPBC Act in May 2007. That assessment concluded that actions approved or taken in accordance with the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003, as amended by the Southern and Eastern Scalefish and Shark Fishery Management Plan Amendment 2006 (No. 2), would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area. Consequently, the Southern and Eastern Scalefish and Shark Fishery Management Plan 2003, as amended by the Southern and Eastern Scalefish and Shark Fishery Management Plan Amendment 2006 (No. 2), was accredited under section 33 of the EPBC Act.</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>	

Section 303FR Public consultation	The Department's assessment of the SESSF
<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>The Department considers that the consultation requirements of the EPBC Act for declaring a fishery an approved wildlife trade operation have been met. A public notice, which set out the proposal to declare the SESSF an approved wildlife trade operation and included AFMA's submission, was released for public comment which closed on 18 January 2016 with three submissions received.</p>
<p>(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.</p>	<p>A public notice, which set out the proposal to declare the SESSF an approved wildlife trade operation and included AFMA's submission for the SESSF was released for public comment on 10 December 2015 and closed on 18 January 2016, a total of 25 business days.</p>
<p>(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.</p>	<p>The public comments received on the submission are included at <u>Attachment C2</u> of the brief. These three public submissions were considered in the assessment, along with a response from AFMA on the comments. All three submissions acknowledged management improvements made in this fishery in recent years.</p> <p>Additional concerns that have been considered in the assessment are:</p> <ul style="list-style-type: none"> • status of Australian sea lion populations (ongoing measures to protect this species from the impact of fishing addressed in Condition A, Table 4) • ongoing concerns about dolphin interactions (ongoing measures to protect dolphins from the impact of gillnet fishing addressed in Condition B, Table 4)

	<ul style="list-style-type: none"> • ongoing concerns about seal interactions (ongoing measures to protect seals from the impact of gillnet fishing addressed in Condition C, Table 4) • ongoing concerns about seabird interactions (ongoing measures to protect seabirds from the impact of gillnet fishing addressed in Condition D, Table 4) • concerns about changes to management arrangements for upper-slop dogfish (ongoing measures to protect upper-slope dogfish from the impact of all fishing addressed in Condition 4, Table 4) • high levels of interaction and bycatch of shortfin makos and white sharks and the need for additional mitigation measures (a recommendation for more work to determine risk to non-target shark species, including shortfin makos is at Recommendation 1, Table 4) • concern that the environmental risk assessment for line caught gummy shark in the Gillnet, Hook and Trap Sector being incomplete (AFMA has advised that has been done and will be published soon) • recommend development of handling practises for grey nurse sharks (not accepted, as there have been no recorded interactions with this species since 2013) • lack of appropriate measures of abundance for species under rebuilding strategies (while this is a good suggestion, a formal recommendation has not been made at this time as AFMA has commenced a process to address this) • recommendation for a more precautionary approach to the management of orange roughy (not accepted, as ongoing measures to ensure rebuilding of orange roughy and other conservation dependent species appear to be effective. Continuation of these measures is prescribed by Condition 4,
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	<p>table 4), and</p> <ul style="list-style-type: none"> • potential issues regarding discarded trawl nets and rope fragments and the impacts on seals (a recommendation to promote best practise waste management at sea is at Recommendation 1, Table 4)
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Section 303FT Additional provisions relating to declarations	The Department's assessment of the SESSF
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	A declaration for the SESSF will be made under section 303FN.
<p>(3) 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 to the extent that the plan or operation relates to a particular class of specimens. In such a case:</p> <p>(g) the instrument of declaration is to specify that class of specimens; and</p> <p>(h) the plan or operation is covered by the declaration only to the extent that the plan or operation relates to that class of specimens.</p>	<p>The Department considers that the SESSF should be the subject of a declaration under section 303FN only to the extent that it relates to the harvesting of specimens that belong to taxa that are not listed under Part 13 of the EPBC Act.</p> <p>The instrument of declaration for the SESSF specifies the classes of specimens.</p>
<p>(4) The Minister may make a declaration about a plan or operation even though he or she considers that the plan or operation should be the subject of the declaration only:</p> <p>(a) during a particular period; or</p> <p>(b) while certain circumstances exist; or</p> <p>(c) while a certain condition is complied with.</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 plan • notifying the Department of changes to the management regime, and • annual reporting in accordance with the requirements of the

In such a case, the instrument of declaration is to specify the period, circumstances or condition.	<p><i>Australian Government Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition.</i></p> <p>The wildlife trade operation instrument for the SESSF specifies the standard and any additional conditions applied.</p>
(8) A condition may relate to reporting or monitoring.	One of the standard conditions relates to reporting.
(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.	
(11) A copy of an instrument under section 303FN, or this section is to be made available for inspection on the Internet.	The instrument for the SESSF made under sections 303FN and the conditions under section 303FT will be gazetted and made available through the Department's website.

Part 16

Section 391 Minister must consider precautionary principle in making decisions	The Department's assessment of the SESSF
(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and/or section 303FN, to the extent he or she can do so consistently with the other provisions of this Act.	<p>Recognising the risks and uncertainties associated with the operations of the SESSF, AFMA has put in place precautionary management arrangements for the fishery. Vessel and gear restrictions, area closures, limited entry and catch limits informed by regular stock assessments provide a means by which damage to the environment can be avoided.</p> <p>Having regard to the precautionary management measures in place in this fishery, and the planned three year duration of the wildlife trade operation accreditation, the Department considers that the precautionary principle has been accounted for in the preparation of advice in relation to a decision under section 303FN.</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.	
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Part 12

Section 176 Bioregional Plans	The Department's assessment of the SESSF
(5) Subject to this Act, the Minister must have regard to a bioregional plan in making any decision under this Act to which the plan is relevant.	<p>The marine bioregional plans for the Temperate East Marine Region and South-west Marine Region have been considered in the preparation of advice in relation to decisions under section 303DC and section 303FN. Extraction of living resources, bycatch and physical modification of habitat by trawling have been identified as pressures operating within these marine bioregional planning areas in which the SESSF operates.</p> <p>However, these pressures have been identified as being 'of potential concern' only. The plans also note that these assessments are conservative in the context of active fisheries management, particularly when fisheries are managed at an ecosystem level, as in the SESSF.</p>

The Department of the Environment's final conditions and recommendations to the Australian Fisheries Management Authority (AFMA) for the Southern and Eastern Scalefish and Shark Fishery (SESSF)

The material submitted by AFMA demonstrates that the management arrangements for the SESSF continue to meet most of the requirements of the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition'.

Stock Status and Recovery

The Department considers that overall the management regime for the SESSF aims to ensure that fishing is conducted in a manner that does not lead to overfishing.

The Australian Bureau of Agricultural and Resource Economics and Sciences has identified no significant resource concerns for the majority of the target stocks in the fishery, although a low number of stocks are classified as uncertain or overfished.

For the small number of stocks classified as overfished or below prescribed limit reference points, species specific management strategies are in place to support the recovery of these stocks.

Management measures in place in the fishery include:

- total allowable catch limits for target and key non-target stocks
- limited entry and gear restrictions
- spatial and temporal closures, and
- annual reviews of the performance of the fishery.

The Department considers the actions undertaken by the AFMA to be sufficient in ensuring the survival and recovery of these stocks in the short term.

Ecosystem Impacts

Taking into account the management measures described above, the Department considers that the management regime for the SESSF provides for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

While the fishery is relatively well managed, the Department has identified a number of risks and uncertainties that must be managed to ensure that impacts are minimised, including interactions with protected species (mainly pinnipeds, dolphins, seabirds and some sharks), and the need to recover overfished stocks.

Notwithstanding the progress made by AFMA on the key challenges faced by the fishery, continuing focus will be needed on addressing interactions with protected species, and determining the extent of impact of the fishery on non-target shark species.

The Department considers that, until it can be demonstrated that these issues have been adequately addressed, declaration of the harvest operations of the Southern and Eastern Scalefish and Shark Fishery as an approved wildlife trade operation for three years, **until 21 February 2019**, is appropriate. The Department considers that the declaration should be subject to the conditions listed in Table 4. To contain and minimise the risks in the longer term the recommendations outlined in Table 4 have been made.

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

Table 4: Southern and Eastern Scalefish and Shark Fishery Assessment – Summary of Issues, Conditions and Recommendations, February 2016

Issue	Part 13A Conditions
<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 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>Condition 1: Operation of the Southern and Eastern Scalefish and Shark Fishery will be carried out in accordance with the management arrangements in force under the <i>Fisheries Management Act 1991</i>.</p> <p>Condition 2: The Australian Fisheries Management Authority to inform the Department of the Environment of any intended material changes to the Southern and Eastern Scalefish and Shark 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 conditions and 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 conditions and 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>Condition 3:</p> <p>The Australian Fisheries Management Authority to produce and present reports to the Department of the Environment annually as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p>

Issue	Part 13A Conditions
<p><u>Conservation dependent species</u></p> <p>A number of species listed as conservation dependent under the EPBC Act are caught as bycatch or byproduct within the SESSF. These species include orange roughy, eastern gemfish, school shark, Harrison's dogfish, southern dogfish and blue warehou. AFMA has developed and implemented rebuilding strategies (for orange roughy, eastern gemfish, school shark and blue warehou) and a management strategy (for Harrison's dogfish and southern dogfish) for stocks of these species that occur within the fishery, in accordance with the Commonwealth Fisheries Harvest Strategy Policy. Key objectives for rebuilding strategies are to rebuild stocks within the area of the fishery to limit reference points in the first instance and then to target reference points within biologically reasonable timeframes. These reference points and timeframes are established within each species specific strategy.</p> <p>The Department is aware that reviews of the rebuilding strategies for orange roughy, eastern gemfish, school shark and blue warehou have been undertaken since the last EPBC Act assessment of the SESSF. Revised rebuilding timeframes were incorporated into the strategies along with a number of other management measures.</p> <p>The Department considers it important that AFMA's management measures continue to be reviewed to ensure that the most appropriate measures are in place to enable the rebuilding objectives to be met. An annual evaluation of the effectiveness of the rebuilding strategies, management strategies and the status of the conservation dependent stocks should be provided to the Department.</p>	<p>Condition 4:</p> <p>AFMA to:</p> <ul style="list-style-type: none"> a) ensure that management measures are in place to meet the objectives of the rebuilding strategies and management strategies for species listed as conservation dependent under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>, and b) continue to evaluate and report to the Department on the effectiveness of rebuilding strategies and management strategies for conservation dependent listed species.

<p><u>Ecological Risk Assessments/Ecological Risk Management</u></p> <p>AFMA has developed and implemented an ecological risk assessment and management framework for all Commonwealth fisheries. This framework describes a process for assessing and progressively addressing the impacts that fisheries activities have on five aspects of the marine ecosystem:</p> <ul style="list-style-type: none"> • target species • byproduct and discard species • threatened, endangered and protected (TEP) species • habitats, and • communities. <p>This framework has been in place since 2004 and AFMA has advised it is currently being updated, to improve transparency and reflect improvements in data collection since the inception of the Harvest Strategy Policy.</p> <p>The Department considers it important that AFMA continue regular reviews of ecological risk for each sector of the SESSF, which include consideration of the cumulative impacts of all fishing activity undertaken in the same spatial area. In addition, any reviews of management measures undertaken by AFMA should ensure that the most appropriate measures are in place to address the risks identified. Final reports on ecological risk assessment outcomes and management response documents should be made available publically or provided directly to the Department.</p>	<p>Condition 5:</p> <p>AFMA to:</p> <ul style="list-style-type: none"> c) continue regular review of ecological risk assessments in the SESSF, ensuring that the cumulative impact of all Commonwealth commercial fisheries in the area is taken into account, and d) implement management actions to address and mitigate risks and impacts for species that are identified as high risk.
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Issue	Part 13 Condition
<p><u>Australian sea lions</u></p> <p>The area of the Shark Gillnet and Shark Hook Sector of the SESSF overlaps extensively with the foraging range of Australian sea lion populations offshore of South Australia. Australian sea lions are listed as vulnerable under the EPBC Act and are considered highly susceptible to fatal interactions with gillnets, based on research conducted in the fishery from 2007 - 2010.</p> <p>AFMA has implemented a range of management measures to mitigate the impact of gillnet fishing on Australian sea lions, as described in its Australian Sea Lion Management Strategy. This strategy was first implemented in 2010 and was most recently revised in July 2015 (AFMA 2015). The revised strategy includes all changes made since 2010, including an increase in size to colony closures and the implementation of mandatory electronic monitoring on all fulltime gillnet boats in this sector of the SESSF.</p> <p>Additional management measures in force under the Australian Sea Lion Management Strategy include:</p> <ul style="list-style-type: none"> • area closures of 18 500 km² to gillnet fishing around Australian sea lion colonies • requirement for one hundred per cent coverage of independent monitoring (such as observers or cameras) for gillnet fishing offshore of South Australia • the setting of Australian sea lion mortality limits that act to trigger additional closures if unacceptable levels of interaction occur • provisions to allow some gillnet fishers to switch to using hooks off South Australia, including in areas now closed to gillnets <p>Under the strategy, an Australian Sea Lion Management Zone has been described within the fishery, which has been divided into seven subzones for management purposes. An Australian sea lion bycatch trigger limit has been identified for each subzone, with a total bycatch trigger limit across the whole fishery set at 15 animals. When a subzone reaches its prescribed trigger limit, the zone is closed to gillnet fishing for a period of 18 months, equivalent to a full breeding cycle of Australian sea lions. In January 2016, Australian Sea Lion Management Zone C was closed after two Australian sea lion mortalities in December 2015, the first closure since 2012.</p> <p>The Department considers it important that these improved management measures remain in place, with continuing consultation with marine mammal experts to ensure the adequacy of ongoing management measures to protect Australian sea lion from the impact of fishing.</p>	<p>Condition A</p> <p>AFMA to:</p> <ol style="list-style-type: none"> a) maintain management measures clearly directed toward limiting the impact of fishing activity on Australian sea lions to levels which will assist in enabling the recovery of the species, including all subpopulations b) continue to monitor and review the adequacy of its Australian sea lion management measures, in consultation with marine mammal experts.

Issue	Part 13 Condition
<p><u>Dolphins</u></p> <p>A significant rise in reported entanglements of dolphins with gillnets in the Shark Gillnet and Shark Hook Sector of the SESSF was observed between late 2010 and late 2011, with 50 mortalities recorded. The rise in reported interactions followed increased observer coverage in the sector after the introduction of the Australian Sea Lion Management Strategy.</p> <p>In response to the increased reported interactions in 2011, AFMA closed an area of approximately 27 340 km² to the use of gillnets where the majority of dolphin interactions occurred. This area is known as the Coorong Zone, located offshore of the mouth of the Murray River in South Australia. Adjacent to this area, AFMA imposed a Dolphin Observation Zone, where all gillnet vessels are required to have one hundred percent coverage by independent scientific observers or e-monitoring systems.</p> <p>AFMA subsequently developed its <i>Dolphin Strategy – minimising gillnet bycatch</i> (AFMA 2014) which aims to reduce dolphin bycatch in gillnets in the SESSF to as close to zero as possible. The strategy focuses on individual responsibility i.e. requiring gillnet vessels to develop individual measures to minimise dolphin bycatch and requires each vessel to remain within defined bycatch performance criteria. Should bycatch performance measures not be met, spatial closures are applied on a vessel specific basis.</p> <p>The strategy allows for operators, under strict conditions, to resume fishing in the Coorong Zone. AFMA has advised that the strategy will soon be expanded so that the measures currently in place in the Coorong Zone will apply to all gillnet fishers in the SESSF.</p> <p>The Department considers the dolphin strategy to be an important step in the management and understanding of dolphin bycatch in the SESSF. It will be important for annual bycatch rates under the new strategy to be considered on a species-specific basis, to determine the impacts on dolphin populations.</p>	<p>Condition B</p> <p>AFMA to continue to collect and report on dolphin interactions, where possible to species level, and continue to refine management measures to minimise the bycatch of dolphins in gillnets. This should include ongoing monitoring and review of these measures, in consultation with marine mammal experts.</p>

Seals

Interactions with seals (Australian fur seals and long-nosed fur seals) and the Commonwealth Trawl Sector has been an ongoing issue in the SESSF. There have been between 130–250 interactions annually since 2010, with a general trend of increase. Interactions generally occur when seals enter trawl nets to obtain food. A high proportion of interactions end in mortality, when the seal fails to swim back out of the net before becoming exhausted and subsequently drowns. The Department understands that the increasing rise in interactions may be attributed to increases in the abundance of fur seals in Australian waters, including expansions of range as fur seals recolonise new areas where populations were historically extirpated by commercial sealing.

Since the previous EPBC Act assessment of the fishery, AFMA and the fishing industry have trialled alternative fishing gear configurations (shortened codends) with the expectation that this would reduce the levels of seal interactions. However, in 2015 the trials concluded that shortened codends were unsuccessful in reducing interactions. AFMA is currently investigating other methods of reducing seal bycatch in the fishery.

While acknowledging the significant efforts made by AFMA and the fishing industry to reduce mortalities of fur seals caused by fishing activity, it remains important that research continues to develop and implement more effective mitigation measures to avoid bycatch of these protected species.

Condition C:

AFMA to continue to work with industry and relevant experts to develop and implement management measures to minimise mortality of seals in the Commonwealth Trawl Sector of the fishery.

Seabirds

Seabirds can be attracted to fishing vessels at sea by discarded offal and baits. Seabirds have been known to ingest baited hooks during the setting or hauling of longlines and can also interact with trawl vessels where they collide with, and/or become entangled by, parts of the trawl gear. Mortalities of seabirds from interactions with commercial fishing activities have caused significant declines in a number of species worldwide.

Vessels in the longline and trawl sectors of the SESSF have been identified by the AFMA as those most likely to interact with seabirds. However, the impacts of longline fishing activity on seabirds have been substantially reduced through the implementation of measures articulated in the 'Threat Abatement Plan 2014 for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations'.

Recent trials of two new seabird bycatch mitigations devices ("sprayers" and "bird bafflers") using targeted independent observers on trawl vessels have shown significant reductions in the amount of interactions recorded (up to 90 %). Implementing these new mitigation measures and ensuring compliance is now a key focus in the trawl fishery, and aims to reduce seabird interactions by 90–95 % in this sector.

The measures to mitigate seabird interactions are described in mandatory Seabird Management Plans (SMPs) for all otter trawl vessels in the Commonwealth Trawl Sector and all active auto longline vessels in the Gillnet Hook and Trap sector of the fishery. SMPs are customised for each vessel and can include a range of measures to reduce the risk of interactions with seabirds, including bycatch mitigation devices and requirements to minimise, and avoid where possible, the discharge of biological material, including offal, while fishing gear is in the water.

The Department considers it important that effective SMPs continue to remain in place, with monitoring to ensure compliance with agreed mitigation measures so that seabird mortality throughout the fishery is avoided or minimised. The Department recommends that offal management measures that have been demonstrated as highly effective in reducing seabird mortalities in other fisheries be implemented in this fishery where possible.

Condition D:

AFMA to:

- a) ensure efficient and effective Seabird Management Plans remain in place for Commonwealth Trawl Sector and Gillnet Hook and Trap sector automatic longline vessels.
- b) ensure adequate monitoring is in place to ensure compliance with Seabird Management Plans, and
- c) implement management measures to address the risk of interactions with seabirds in the Commonwealth Trawl Sector and for Gillnet Hook and Trap sector automatic longline vessels. This should include implementing bycatch devices and/or offal management measures that have been demonstrated to be highly effective in reducing seabird mortality.

Issue	Recommendations
<p><u>Non-target sharks</u></p> <p>Australia has a high diversity of shark species, which has generated national and international interest in the conservation and long term management of Australian sharks. Sharks worldwide are generally considered more vulnerable to fisheries' impacts than bony fish, due to their slow growth, late maturation and lower reproductive output. A number of shark (and ray) species have been included on international threatened species lists in recent years, such as the Bonn Convention on Migratory Species and the Convention on International Trade in Endangered Species of Fauna and Flora.</p> <p>Within the SESSF, some shark species are targeted while others are caught incidentally during fishing for other species. Targeted species are subject to formal management arrangements, complemented by monitoring and research. However, many more species are caught incidentally and either kept and sold or discarded at sea. For these species, there is generally less known about the status of the stock or the full extent of the catch.</p> <p>In 2012, Australia articulated its priorities for actions to improve shark management through Shark-Plan 2, the National Plan of Action for Shark Conservation and Management 2012. Consistent with Shark-Plan 2, and to assist with international efforts to manage globally threatened shark stocks, the Department recommends that AFMA continue to improve determination of catch composition for chondrichthyan species, so that species of non-target sharks caught in the SESSF are accurately recorded and the extent of impact can be determined. This should inform the implementation of appropriate management measures for shark species identified through protected species listing processes and AFMA's Ecological Risk Assessment process. Improved information and management of these species will contribute to mitigating impact on Australian populations of shark species that are potentially at risk internationally.</p>	<p>Recommendation 1:</p> <p>AFMA to determine the extent of the impact of fishing on non target shark species, including seeking to identify the species impacted, and develop management actions to mitigate the impact for non target shark species that are identified as high risk through the Ecological Risk Assessment process.</p>

Issue	Recommendations
<p><u>Eastern redfish</u></p> <p>The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) 'Fishery status reports 2015' provides an assessment of fish stocks in Commonwealth fisheries, including the SESSF, using data to the end of the 2014 fishing year. The ABARES status report lists eastern redfish as uncertain if subject to overfishing, citing a lack of clarity on current catch levels and increased uncertainty around the potential for redfish stocks to rebuild. In 2013, the stock of eastern redfish was estimated to be at 10.8 per cent of its unfished biomass.</p> <p>According to the Commonwealth Harvest Strategy Policy, if a stock falls below its biomass limit reference point, a rebuilding strategy will be developed to rebuild the stock. A draft rebuilding strategy is currently under development for eastern redfish that, once finalised, should direct management measures that will allow the stock to rebuild to the limit and reference points within biologically appropriate timeframes. It is important that AFMA consult with the Department in the development and finalisation of this rebuilding strategy.</p>	<p>Recommendation 2:</p> <p>AFMA to consult with the Department in the development and finalisation of the eastern redfish rebuilding strategy.</p>
<p><u>Marine debris</u></p> <p>Fishing operations can have direct impact on the marine environment while active fishing is occurring and outside of active fishing, if fishing gear is discarded at sea. This discarded gear contributes to harmful marine debris, which is known to have detrimental impacts on a number of marine mammal species, as described in the 'Threat Abatement Plan for the impacts of marine debris on vertebrate marine life'. Under this Threat Abatement Plan, compliance enforcement for marine pollution in Australian waters is the responsibility of the Australian Maritime Safety Authority (AMSA), with AFMA providing support through monitoring by independent observers as part of these observers' overall duties.</p> <p>Fragments of discarded trawl nets and rope from commercial fishing operations have been found washed ashore along the coast of south-eastern Australian coastal waters and have been implicated in a number of seal entanglements. The origin of this debris is unknown, however all fisheries that operate in adjacent areas should ensure that obsolete or damaged gear is disposed of appropriately. While AMSA remains the lead agency for management of marine debris, the Department recommends that AFMA consider further promotion of best practice management of unwanted gear within the trawl sector, to minimise potential ecosystem impacts.</p>	<p>Recommendation 3:</p> <p>AFMA to consider further promotion of best practice management of unwanted fishing gear within the Commonwealth Trawl Sector.</p>

