



**Australian Government**

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**Department of Sustainability, Environment, Water, Population and Communities**

Assessment of the  
**WESTERN AUSTRALIAN (WA)  
SOUTH COAST TRAWL FISHERY**

**MAY 2013**

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Assistant Secretary  
Marine Biodiversity and Biosecurity Branch  
Department of Sustainability, Environment, Water, Population and Communities  
GPO Box 787  
Canberra ACT 2601

## **Disclaimer**

This document is an assessment carried out by the Department of Sustainability, Environment, Water, Population and Communities 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 Sustainability, Environment, Water, Population and Communities 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 Sustainability, Environment, Water, Population and Communities or the Australian Government.

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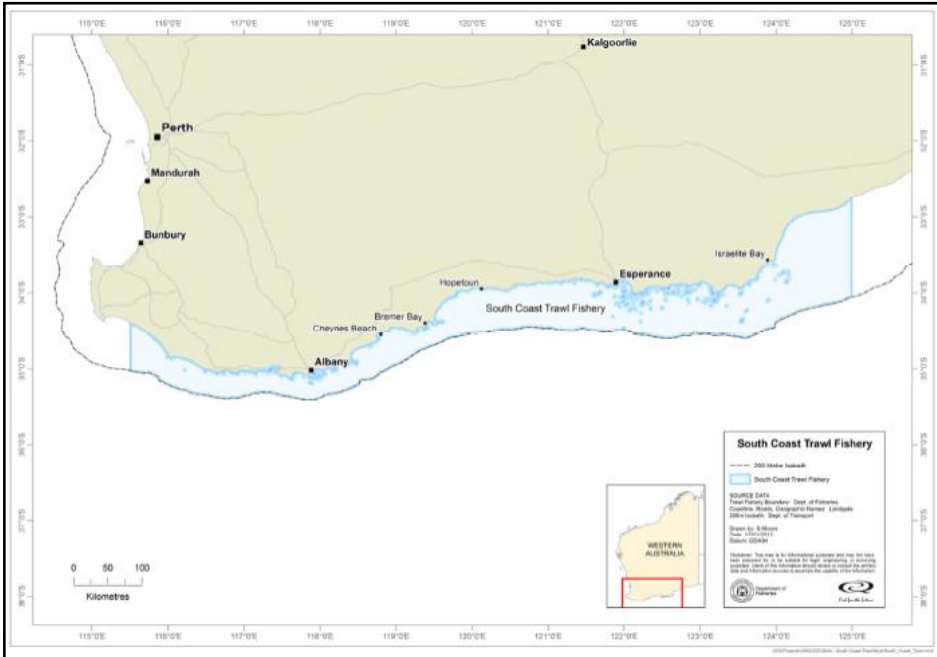
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**Table 1: Summary of the Western Australian (WA) South Coast Trawl Fishery**

<p><b>Publicly available information relevant to the fishery</b></p>	<ul style="list-style-type: none"> <li>• <i>WA Fish Resources Management Act 1994</i></li> <li>• <i>WA Fish Resources Management Regulations 1995 (FRM Regulations)</i></li> <li>• <i>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)</i></li> <li>• <i>WA Department of Fisheries' 'Application to the Department of Sustainability, Environment, Water, Population and Communities on scallop and demersal scalefish trawling in waters off the south coast of Western Australia - 2013'.</i></li> <li>• <i>WA Department of Fisheries Annual State of the Fisheries Reports 2005/06 - 2011/12</i></li> <li>• <i>West Coast Trawl Association Code of Conduct (the code of conduct)</i></li> <li>• <i>Marine bioregional plan for the South-west Marine Region 2012</i></li> </ul>
<p><b>Area</b></p>	<p>The WA South Coast Trawl Fishery operates in Western Australian and Commonwealth waters in the Great Australian Bight between Cape Leeuwin (115°8' E) and 125° E on the landward side of the 200 metre (m) isobath. The fishery area also includes all WA waters (to 3 nautical miles seaward from the mean low water mark) between 125° and 129° E (i.e. the WA/South Australian border) (Figure 1).</p>  <p><b>Figure 1: Map of the Western Australian South Coast Trawl Fishery</b> (Source: WA Department of Fisheries, 2012)</p>

<b>Target Species</b>	<p>Saucer scallop (<i>Amusium balloti</i>)</p> <p>Saucer scallops are predominantly sub-tropical species that occur along the continental shelf of Australia, but have been known to occur as far south as Jervis Bay on the east coast. The unisexualist saucer scallop is known to have two breeding seasons in winter and spring in which the larval phase is believed to be 15-25 days in duration. Saucer scallops develop rapidly, growing to a size of 90 millimetres (mm) in just 6-12 months and are characteristic of short lived species with high natural mortality, making them susceptible to a 'boom and bust' life history.</p>
<b>Fishery status</b>	<p>The target species has been assessed by the WA Department of Fisheries as having 'adequate' spawning stocks. This assessment indicates that annual variations in recruitment to parental biomass are due to environmental impacts, rather than fishing pressure, and that parental biomass is sufficient for ongoing successful spawning.</p> <p>Recruitment of scallops to the west coast of Australia is highly variable and not thought to be dependent on the density of spawning biomass. As a result catch rates and annual tonnage vary dramatically from year to year (Caputi <i>et al</i>, 1996).</p>
<b>Byproduct Species</b>	<p>A number of demersal scalefish species are taken as byproduct, including flathead (Platycephilidae), footballer (<i>Microcathus strigatus</i>), gurnard (Triglidae), leatherjacket (Monacanthidae), blue mackerel (<i>Scomber australasicus</i>), redfish (<i>Centroberyx spp.</i>), queen snapper (<i>Nemadactylus valenciennesi</i>) and trevally (Carangidae), however the commercial catch has been less than 15 tonnes (t) for the past 10 years.</p> <p>Some undefined shark species are also taken as byproduct in the fishery, however catch has not exceeded 500 kg per year in the last 10 years.</p>
<b>Gear</b>	<p>Twin gear otter trawl with 10 mm ground chain (a chain that weights down the trawl net) and 100 mm mesh size for scallops. Twin gear otter trawl nets are also used to catch scalefish, however mesh sizes may be larger.</p> <p>These trawl nets are towed along the seabed and are held open by a pair of otter boards on either side attached to the wings of the net.</p> <p>All vessels are required to fish with a bycatch reduction device (BRD) and a secondary BRD or fish exclusion device (FED) in each net.</p>

<b>Season</b>	<p>The WA South Coast Trawl Fishery is open to fishing from 1 April to 31 October each year with the remainder of the year (1 November to 30 March) being closed to trawling. The waters within the Recherche Archipelago are open to fishing from 2 March to 30 November each year with the remainder of the year (1 December to 1 March) closed to trawling to allow for scallop breeding.</p> <p>The length of the season is defined by preseason surveys conducted by operators in the fishery. The surveys allow the WA Department of Fisheries to estimate the residual stock index or post spawning biomass. In addition, the 'high yield principle' provides an additional measure to close the fishery should the catch rate of scallops fall below 150 kilograms (kg)/day. The catch rate cut-off threshold for the season is determined following the pre-season surveys (which determine the size and abundance of scallops in the fishing grounds) and through consultation with industry.</p> <p>The WA Department of Fisheries Research Division monitors the catch rate throughout the season, and when the fleet reaches the threshold catch rate over two consecutive days, the boats cease fishing for scallops.</p>
<b>Commercial harvest</b>	<p>Scallop landings fluctuate naturally from year to year due to variations in recruitment success. This is reflected in the range in catches from the previous four seasons listed below.</p> <ul style="list-style-type: none"> <li>• 2011 - 176 t whole weight of scallops</li> <li>• 2010 - 112 t whole weight of scallops</li> <li>• 2009 - 71 t whole weight of scallops</li> <li>• 2008 - 23 t whole weight of scallops</li> </ul>
<b>Value of commercial harvest</b>	<p>The estimated annual value to fishers in 2011 was less than \$1 million. Due to there being only four operators in the fishery, the actual value is confidential.</p>
<b>Take by other sectors</b>	<p>There has been no reported take of scallops from other sectors since the last assessment.</p>
<b>Commercial licences issued</b>	<p>There are four licenses operating in the fishery in the 2013 season.</p>

<b>Management arrangements</b>	<p>Trawling in Western Australian waters is prohibited under the 'Fisheries Notice No. 556 Trawling Prohibition (Whole of State) Notice 1992' which is in force under the Western Australian <i>Fish Resources Management Act 1994</i> and the Western Australian Fish Resources Management Regulations 1995.</p> <p>The WA South Coast Trawl Fishery is managed via an exemption to allow trawling under the Fisheries Notice with the following management arrangements:</p> <p><u>Input controls</u></p> <ul style="list-style-type: none"> <li>• Limited entry (four licensed operators)</li> <li>• Gear restrictions on trawl net mesh size</li> <li>• Spawning season closure</li> <li>• Spatial closure around the Recherche Archipelago</li> </ul> <p><u>Output controls</u></p> <ul style="list-style-type: none"> <li>• A high yield principle has been introduced where the fishery is closed when the daily catch rate drops below 150 kg/day (meat weight)</li> </ul> <p>Part of the fishery operates within the Commonwealth South-west Marine Region.</p>
<b>Export</b>	<p>The WA South Coast Trawl Fishery has not exported any catch since 2008. However, when preseason surveys determine that fishing can occur, the majority of product caught (scallops) is intended for frozen export to Asia.</p>
<b>Bycatch</b>	<p>The risk to bycatch in the fishery is considered low. The large minimum net mesh sizes (100 mm or greater) used in trawl nets for scallops and demersal scalefish trawling, combined with the low number of licenses (four) and the actual area trawled within the fishery (area trawled is much smaller than the extent of the fishery) contributes to a low risk to bycatch species. All trawl nets in the fishery are also required to have bycatch reduction devices in the way of grids, which also lowers the risk to bycatch species.</p>
<b>Interaction with Protected Species<sup>1</sup></b>	<p>Operators are required to report any interactions with protected species to the WA Department of Fisheries through the operational log books in the fishery. Ongoing monitoring of log book data is completed by the WA Department of Fisheries to determine if there is a rise in protected species interactions. There has been little evidence of interactions with protected species recorded in the fishery.</p> <p>An Ecological Risk Assessment (ERA) for the fishery was completed in 2005 which identified the incidental capture of syngnathids in trawl nets as low risk. Given the low number of boats in the fishery and the limited area trawled, the risk presented by the fishery to protected species is still considered to be low.</p>

<sup>1</sup> 'Protected species' means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and listed threatened, marine and migratory species.

<b>Interaction with Protected Species (cont'd)</b>	<p>A Memorandum of Understanding between the WA Department of Fisheries and the department for the 'Reporting of Fisheries Interactions with Protected Species (Reporting MOU)' is currently being negotiated to streamline reporting requirements for interactions with protected species, assisting fishers in meeting their requirements under the EPBC Act by reducing the administrative reporting burden on individual fishers while providing for regular reporting of protected species interactions.</p> <p>Unless exceptional circumstances exist, the department will not take any actions against the authority holders in respect of a failure to meet the seven-day reporting requirement of protected species interactions, if the interaction was recorded in the authority holder's logbook at the time of the interaction and in accordance with the requirements of the Reporting MOU.</p>
<b>Ecosystem Impacts</b>	<p>The variable recruitment, resultant fluctuating biomass of the scallops and the low retained catch of scalefish species which occur, suggests the fishery is likely to have a minor impact on the general food chain in the region. Scallops have a high natural variability and therefore trophic impacts on the fishery's removal of scallops are likely to be low (WA Department of Fisheries, 2013). Vessels in the fishery operate over a small proportion of the licensed area and therefore benthic impacts are contained to this small area. In addition trawling is restricted to areas of high scallop abundance which is predominantly sand based habitat and resilient to impacts from trawling (WA Department of Fisheries, 2013).</p> <p>The 'Marine bioregional plan for the South-west Marine Region 2012' has identified the Commonwealth Marine area surrounding the Recherche Archipelago as a key ecological feature within the fishery, which is also a regional priority. The plan further identifies pressures in the area of the fishery from the harvesting of living resources, and bycatch. The area surrounding the Recherche Archipelago is important for conservation due to its aggregations of marine life, biodiversity and species that are native only to the region. Both benthic and demersal habitats are also of conservation value and the Recherche Archipelago is home to the most extensive reef system in the South-west Marine Region. The reef and seagrass habitats support a high species diversity of fish, molluscs, sponges and macroalgae.</p> <p>Due to the low number of vessels operating in the fishery and small area trawled, impacts to the physical ecosystem and the conservation values identified in the 'Marine bioregional plan for the South-west Marine Region 2012' are considered to be low. In addition, impacts on the food web are unlikely given that fishing for the target species is stopped when catch levels fall below 150 kg/day.</p>



**Table 2 – Assessment of the Western Australian (WA) South Coast Trawl Fishery against the 'Guidelines for the Ecologically Sustainable Management of Fisheries 2<sup>nd</sup> Edition'**

**MANAGEMENT REGIME**

<b>The management regime does not have to be a formal statutory fishery management plan as such, and may include non-statutory management arrangements or management policies and programs. The regime should:</b>	
<ul style="list-style-type: none"> <li><b>Be documented, publicly available and transparent</b></li> </ul>	<p>Management arrangements for the WA South Coast Trawl Fishery are available on the WA Department of Fisheries website, upon request, in the annual 'Status Reports of the fisheries and aquatic resources of Western Australia', and in the WA Department of Fisheries annual report to the WA Parliament.</p>
<ul style="list-style-type: none"> <li><b>Be developed through a consultative process providing opportunity to all interested and affected parties, including the general public</b></li> </ul>	<p>Sections 64 and 65 of the <i>WA Fish Resources Management Act 1994</i> define the procedures that must be undertaken before determining or amending all management plans for WA fisheries. The WA Department of Fisheries developed a management discussion paper which sought to initiate the process of formalising the management of the WA South Coast Trawl Fishery under an interim managed fishery framework. Following Ministerial approval of the consultation process, the discussion paper was circulated to licence holders and relevant stakeholders and has formed the basis from which changes to the current management arrangements for this fishery have been developed.</p> <p>The WA Department of Fisheries arranges meetings with industry members when required. The meetings review data from the past seasons and discuss management arrangements, research and compliance issues. In addition, for the Shark Bay Scallop fisheries (a similar trawling fishery with operators that also fish in the South Coast Trawl Fishery) a workshop was held to seek outside involvement in the development of the Ecologically Sustainable Development (ESD) reports. The workshop included industry members, industry representative groups, non-government environmental organisations, scientific researchers and other State government agencies as well as a representative from the department.</p>

<ul style="list-style-type: none"> <li>• <b>Ensure that a range of expertise and community interests are involved in individual fishery management committees and during the stock assessment process</b></li> </ul>	<p>The WA South Coast Trawl Fishery is a sporadic fishery due to natural variability in target stocks. Due to this sporadic effort, appropriate groups to be consulted on matters regarding the fishery have not been identified within a formal management plan. However, the WA Department of Fisheries consults with industry, environmental non-government organisations, recreational fishers and the wider community to ensure the management process is relatively transparent. Under WA law, before amending or introducing any legislation or policy, the WA Department of Fisheries must consult with representatives from the recreational sector, the WA Fishing Industry Council and other interested parties as appropriate.</p>
<ul style="list-style-type: none"> <li>• <b>Be strategic, containing objectives and performance criteria by which the effectiveness of the management arrangements are measured</b></li> </ul>	<p>The WA <i>Fish Resources Management Act 1994</i> under which the WA South Coast Trawl Fishery is managed, has several overarching objectives. Some of these include: to conserve, develop and share the fish resources of WA for the benefit of present and future generations; to conserve fish and to protect their environment; to ensure that the exploitation of fish resources is carried out in a sustainable manner; to achieve the optimum economic, social and other benefits from the use of fish resources; and to enable the allocation of fish resources between users of those resources.</p> <p>The WA Department of Fisheries compiles ESD Component Reports which contain the available objectives, indicators and performance measures for the effectiveness of the management arrangements for all WA fisheries. An ESD report was last compiled for the South Coast Trawl Fishery in 2005 (<b><u>Attachment A, Appendix 1</u></b>) and due to the low level of effort since 2005 and the subsequent expiry of export approval in 2008, the 2005 ESD remains the most current report for the fishery. For some components, the objectives, indicators and performance measures are well established and the data are available to demonstrate levels of performance over time. For other components, the objectives, indicators and performance measures have only just been developed and/or the necessary data collection is only just being initiated.</p> <p>The WA Department of Fisheries has advised that once export approval has been granted for the fishery, the annual ESD audit will provide a reassessment of risks for the fishery.</p>

<ul style="list-style-type: none"> <li>• <b>Be capable of controlling the level of harvest in the fishery using input and/or output controls</b></li> </ul>	<p>The WA <i>Fish Resources Management Act 1994</i>, WA Fish Resources Management Regulations 1995, and the licence conditions for the WA South Coast Trawl Fishery provide the legislative ability to control the level of harvest within the fishery. This is primarily achieved through the use of input control measures based upon limiting the number of licensees allowed to operate in the fishery to only four, along with some seasonal and spatial closures.</p>
<ul style="list-style-type: none"> <li>• <b>Contain the means of enforcing critical aspects of the management arrangements</b></li> </ul>	<p>The WA Department of Fisheries employs operational staff to ensure compliance with the critical aspects of the management arrangements for the WA South Coast Trawl Fishery. Fishers are also required to complete daily logbooks and submit them monthly. These logbooks are used to record catch, bycatch and any interactions with protected species.</p>
<ul style="list-style-type: none"> <li>• <b>Provide for the periodic review of the performance of the fishery management arrangements and the management strategies, objectives and criteria</b></li> </ul>	<p>The WA Department of Fisheries publishes an annual State of the Fisheries report each year reporting on the performance of each commercial fishery, including the WA South Coast Trawl Fishery.</p> <p>The department considers that the WA Department of Fisheries should include a more comprehensive report of the WA South Coast Trawl Fishery in future State of the Fisheries reports, which includes but is not limited to, performance measures, protected species interactions, catch of target and byproduct species and bycatch (<b>Condition 3, Table 4</b>).</p>
<ul style="list-style-type: none"> <li>• <b>Be capable of assessing, monitoring and avoiding, remedying or mitigating any adverse impacts on the wider marine ecosystem in which the target species lives and the fishery operates</b></li> </ul>	<p>Due to the nature and scale of the WA South Coast Trawl Fishery, the impact of the fishery on the wider ecosystem is considered to be low. The WA Department of Fisheries completed an ecological risk assessment for trawl fisheries in 2005. This ecological risk assessment ensures that adverse impacts to the wider marine ecosystem are detected and can be responded to.</p> <p>The department recommends the WA Department of Fisheries completes a review of the Ecological Risk Assessment for the fishery to ensure any new risks are identified and appropriate management arrangements are implemented (<b>Recommendation 1, Table 4</b>).</p>

<ul style="list-style-type: none"> <li>• <b>Requires compliance with relevant threat abatement plans, recovery plans, the National Policy on Fisheries Bycatch, and bycatch action strategies developed under the policy</b></li> </ul>	<p>The WA South Coast Trawl Fishery has low interactions with bycatch species, and as such is in compliance with all relevant plans and policies.</p> <p>The department recommends that the WA Department of Fisheries conduct appropriate ongoing research and/or monitoring to determine whether the actions undertaken in the Bycatch Action Plan Matrix for WA trawl fisheries are sufficient to minimise risk to bycatch species in the fishery (<b>Recommendation 2, Table 4</b>).</p>
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**PRINCIPLE 1 – A fishery must be conducted in a manner that does not lead to over-fishing, or for those stocks that are over-fished, the fishery must be conducted such that there is a high degree of probability the stock(s) will recover.**

<b>Objective 1: The fishery shall be conducted at catch levels that maintain ecologically viable stock levels at an agreed point or range, with acceptable levels of probability.</b>	
<p><b>Information requirements</b></p> <p><b>1.1.1</b></p> <p>There is a reliable information collection system in place appropriate to the scale of the fishery. The level of data collection should be based upon an appropriate mix of fishery independent and dependent research and monitoring.</p>	<p>Data is collected through fishery dependent systems, many of which have been in place in the fishery for decades. The ongoing monitoring programs are supported by research programs on the biology and ecology of scallops along the west coast of WA. Daily research logbooks, which are submitted monthly, are completed by all WA South Coast Trawl Fishery operators. Fishers include information regarding catch, bycatch and interactions with protected species in this logbook.</p>
<p><b>Assessment</b></p> <p><b>1.1.2</b></p> <p>There is a robust assessment of the dynamics and status of the species/fishery and periodic review of the process and the data collected. Assessment should include a process to identify any reduction in biological diversity and /or reproductive capacity. Review should take place at regular intervals but at least every three years<sup>2</sup>.</p> <p><b>1.1.3</b></p> <p>The distribution and spatial structure of the stock(s) has been established and factored into management responses.</p>	<p>The status of scallop breeding stocks and intra-annual variation are assessed and evaluated every year using a synthesis of information obtained from the fishery. A review of the performance for the fishery is conducted at least once a year. This review includes an assessment of the total catch by the fishery, the level of effort to take the catch, the distribution of effort across the season and the calculated catch rates. This assessment is reported annually within the WA State of the Fisheries Report.</p> <p>The distribution of this species of scallop has been well documented, occurring from Esperance to Broome with a number of locations where there are commercially viable abundances in Western Australia. Additionally, saucer scallop occurs from Queensland to New South Wales in eastern Australia. It is also commercially harvested in the eastern states but the distribution of the east and west populations of the saucer scallops are separated across the northern Australian waters.</p>

<sup>2</sup> Review should be undertaken by the relevant management authority in a transparent way.

<p><b>1.1.4</b> There are reliable estimates of all removals, including commercial (landings and discards), recreational and indigenous, from the fished stock. These estimates have been factored into stock assessments and target species catch levels.</p> <p><b>1.1.5</b> There is a sound estimate of the potential productivity of the fished stock/s and the proportion that could be harvested.</p>	<p>Given the nature of this fishery, only the estimates of removals by the commercial sector are assessed and these are collected on a daily to monthly basis during the fishing season. There are no recreational or indigenous fisheries for scallops in the South Coast region. Furthermore, there is a minimal likelihood of a significant level of illegal capture of scallops by the commercial fleet.</p> <p>In the WA South Coast Trawl Fishery, fishing is dependent on the amount of annual recruitment with exploratory trawling determining the amount of fishing undertaken in any year. The WA South Coast Trawl Fishery has also undergone a wide fluctuation in scallop abundance with the 2000 season providing the highest catch of scallops (544 t, meat weight) in the state. This was the highest catch in the history of this fishery. It is believed optimal environmental conditions provided for successful settlement and survival of scallops in the region. In subsequent years, catches have been lower than in the 2000 season but still higher than the average (less than 100 tonnes) from the harvesting of the residual stock and additional local settlement.</p>
<p><b>Management responses</b> <b>1.1.6</b> There are reference points (target and/or limit), that trigger management actions including a biological bottom line and/or a catch or effort upper limit beyond which the stock should not be taken.<sup>3</sup></p>	<p>The annual effort expended in the WA South Coast Trawl Fishery is an outcome of initial fishing surveys used by operators to estimate stock abundance and likely benefits of continued fishing. For the WA South Coast Trawl Fishery, the amount of fishing that takes place annually is economically driven with fishers stopping at around 150 kg/day.</p> <p>The department has recommended the WA Department of Fisheries:</p> <ul style="list-style-type: none"> <li>a) investigate the causes contributing to the ongoing low recruitment of scallops, and develop and implement strategies to address these where appropriate; and</li> <li>b) continue the evaluation of alternative fishing gears to reduce bycatch and the retention of smaller scallops, and encourage uptake of alternative gears where appropriate. (<b>Recommendation 3, Table 4</b>)</li> </ul>

<sup>3</sup> Reference points can allow for seasonal fluctuations in stock recruitment and other areas of uncertainty.

**1.1.7**

There are management strategies in place capable of controlling the level of take.

Effort in the WA South Coast Trawl Fishery is limited to four licences which in turn limits take. The fishery has until recently been managed via licence conditions and Fisheries Notices. It has now moved to management via Exemption with the *Fish Resources Management Act 1994* and the Fish Resources Management Regulations 1995 providing the legislative framework for the management arrangements. Managing the activities in this Fishery via Exemption provides the WA Department of Fisheries with a stronger legal base to enable trawling to be conducted by 'exempting' the relevant licensees from 'Fisheries Notice No. 556 Trawling Prohibition (Whole of State) Notice 1992'.

**1.1.8**

Fishing is conducted in a manner that does not threaten stocks of by-product species. (Guidelines 1.1.1 to 1.1.7 should be applied to by-product species to an appropriate level)

The relatively small area of practical operation of this fishery (over sand habitat) combined with the short time the fishery operates (only a few months per year), the small number of operators (four), the large mesh size used and the slow speed of trawling results in this fishery only catching relatively small amounts of byproduct species. However, the operators in the fishery are able to target demersal finfish species with the same trawl gear used to target scallops and historic catches (1990's) have been as high as 70 tonnes (t).

The department has recommended the WA Department of Fisheries develop appropriate trigger limits and associated management arrangement responses for scalefish catch in the fishery (**Condition 4, Table 4**).

**1.1.9**

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

The management measures currently in place have a high chance of achieving the objective, however, there will be more certainty of this once reference points and performance measures are introduced for finfish species (**Condition 4, Table 4**).

**Objective 2: Where the fished stock(s) are below a defined reference point, the fishery will be managed to promote recovery to ecologically viable stock levels within nominated timeframes.**

**Management responses**

**1.2.1**

A precautionary recovery strategy is in place specifying management actions, or staged management responses, which are linked to reference points. The recovery strategy should apply until the stock recovers, and should aim for recovery within a specific time period appropriate to the biology of the stock.<sup>4</sup>

There are no stocks within the WA South Coast Trawl Fishery that are currently below defined reference points/limits as currently there are no defined reference points. However, because of the poorly understood stock-recruitment relationship, defined reference points (at least for breeding stock levels) are of little relevance for scallops.

The department has recommended that the WA Department of Fisheries investigate the ongoing low recruitment of scallops in the WA South Coast Trawl Fishery. (**Recommendation 3, Table 4**)

**1.2.2**

If the stock is estimated as being at or below the biological and / or effort bottom line, management responses such as a zero targeted catch, temporary fishery closure or a 'whole of fishery' effort or quota reduction are implemented.

In the event that the stock level drops below an acceptable level, management responses such as further restricting catch limits, extended area/seasonal closures will be implemented.

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<sup>4</sup> Strategies require that recovery should take place within specified times with certain degrees of probability.



**PRINCIPLE 2 – Fishing operations should be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem<sup>5</sup>**

<b>Objective 1: The fishery is conducted in a manner that does not threaten bycatch species.</b>	
<p><b>Information requirements</b></p> <p><b>2.1.1</b></p> <p>Reliable information, appropriate to the scale of the fishery, is collected on the composition and abundance of bycatch.</p>	<p>There is limited information on the nature and volume of bycatch species for the WA South Coast Trawl Fishery. Information has come from data that has been collected in other similar fisheries such as the Shark Bay Scallop Managed Fishery. In July 2000, a two-year FRDC funded research program on the implementation of bycatch reduction devices began. This included an observer program designed to record, identify and quantify bycatch in the Shark Bay Scallop Managed Fishery. The information gathered in this research program has been utilised in the assessment for this fishery.</p> <p>Fishers are required to report bycatch in their daily logbooks. Bycatch is considered to be relatively lower in scallop trawling fisheries than prawn trawling due to the larger mesh size nets used, clumped distribution of the scallops and slower trawling speeds. All vessels in the WA South Coast Trawl Fishery are required to have Bycatch Reduction Devices (BRD's) fitted to all nets. Therefore the risk to bycatch species is considered low.</p>
<p><b>Assessments</b></p> <p><b>2.1.2</b></p> <p>There is a risk analysis of the bycatch with respect to its vulnerability to fishing.<sup>6</sup></p>	<p>An ecological risk assessment for the fishery was carried out by the WA Department of Fisheries in 2005. This assessment identified the risk to bycatch species from trawling to be low for the majority of bycatch species due to the very low numbers being taken, the low number of operators and the small area of the fishery that is trawled.</p> <p>The department recommends the WA Department of Fisheries completes a review of the Ecological Risk Assessment for the fishery to ensure any new risks are identified and appropriate management arrangements are implemented (<b>Recommendation 1, Table 4</b>).</p>

<sup>5</sup> The issues addressed under the principle are those that define components of ecosystem integrity.

<sup>6</sup> The vulnerability of a bycatch species may be its vulnerability to fishing technology (eg its catchability), or its vulnerability in terms of ecological impact (e.g. loss of predators or prey).

<p><b>Management responses</b></p> <p><b>2.1.3</b> Measures are in place to avoid capture and mortality of bycatch species unless it is determined that the level of catch is sustainable (except in relation to endangered, threatened or protected species). Steps must be taken to develop suitable technology if none is available.</p> <p><b>2.1.4</b> An indicator group of bycatch species is monitored.</p> <p><b>2.1.5</b> There are decision rules that trigger additional management measures when there are significant perturbations in the indicator species numbers.</p> <p><b>2.1.6</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>As per 2.1.1</p> <p>The WA Department of Fisheries considers that the minimal risks associated with this group of non-retained species, results in it being unnecessary to monitor any of these species on a regular basis.</p> <p>The department recommends that the WA Department of Fisheries develop appropriate trigger limits and associated management responses for scalefish take in the fishery (<b>Condition 4, Table 4</b>).</p> <p>As per 2.1.4</p> <p>As per 2.1.1</p>
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<p><b>Management responses</b></p> <p><b>2.2.4</b> There are measures in place to avoid capture and/or mortality of endangered, threatened or protected species.</p> <p><b>2.2.5</b> There are measures in place to avoid impact on threatened ecological communities.</p> <p><b>2.2.6</b> The management response, considering uncertainties in the assessment and precautionary management actions, has a high chance of achieving the objective.</p>	<p>The WA South Coast Trawl Fishery interacts with few protected species as indicated in 2.2.2. The department expects that the completion of the mitigation strategy recommended in <b>Recommendation 2, Table 4</b> will adequately mitigate the risk of interactions with sea snakes and syngnathids.</p> <p>There are currently no threatened ecological communities within the WA South Coast Trawl Fishery. The department expects that if threatened ecological communities are identified, appropriate management responses will be implemented.</p> <p>As the level of interaction between the fishery and protected species and threatened ecological communities is considered to be low, the department considers that the current management arrangements in conjunction with <b>Recommendation 2 Table 4</b> have a high chance of achieving the objective.</p>
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<b>Objective 3: The fishery is conducted, in a manner that minimises the impact of fishing operations on the ecosystem generally.</b>	
<p><b>Information requirements</b></p> <p><b>2.3.1</b></p> <p>Information appropriate for the analysis in 2.3.2 is collated and/or collected covering the fisheries impact on the ecosystem and environment generally.</p>	<p>Five issues were identified in the 2005 risk assessment for the WA South Coast Trawl Fishery as having an impact on the ecosystem. Of the five issues identified, three (trophic interactions, impacts on sand/shell, and discarded fish) were rated as low risk and two (translocation and discarding scallop shells) were rated as negligible.</p> <p>The department considers that due to the nature and scale of the WA South Coast Trawl Fishery there is a high likelihood that the fishery is conducted in a manner that minimises the impact of fishing operations on the ecosystem generally. Should this situation change, the department expects that the WA Department of Fisheries would implement appropriate actions to ensure that the ecosystem generally is not negatively impacted by the operation of the fishery.</p>
<p><b>Assessment</b></p> <p><b>2.3.2</b></p> <p>Information is collected and a risk analysis, appropriate to the scale of the fishery and its potential impacts, is conducted into the susceptibility of each of the following ecosystem components to the fishery.</p> <p><b>(a) Impacts on ecological communities</b></p> <ul style="list-style-type: none"> <li>• Benthic communities</li> <li>• Ecologically related, associated or dependent species</li> <li>• Water column communities</li> </ul> <p><b>(b) Impacts on food chains</b></p> <ul style="list-style-type: none"> <li>• Structure</li> <li>• Productivity/flows</li> </ul> <p><b>(c) Impacts on the physical environment</b></p> <ul style="list-style-type: none"> <li>• Physical habitat</li> <li>• Water quality</li> </ul>	<p>An Ecological Risk Assessment was completed for the WA South Coast Trawl Fishery in 2005. This risk assessment considered benthic biota, the physical habitat, water quality and impact on the food chain.</p> <p>The WA Department of Fisheries concluded that the impacts of the WA South Coast Trawl Fishery on the ecosystem are negligible to low due to the low number of operators, spatial and seasonal closures and gear restrictions in place.</p> <p>The department recommends the WA Department of Fisheries completes a review of the Ecological Risk Assessment for the fishery to ensure any new risks are identified and appropriate management arrangements are implemented (<b>Recommendation 2, Table 4</b>).</p>

### 2.3.3

Management actions are in place to ensure significant damage to ecosystems does not arise from the impacts described in 2.3.1.

An important management action that ensures there is minimal impact on the broader ecosystem is to ensure that there is an adequate level of spawning stock to ensure recruitment is not affected by spawning stock abundance. Furthermore, while scallops are filter feeders, removing small organic material and particulates from the surrounding water, they are only one of a large number of such feeders in the region. Furthermore, they are not the sole prey for any species. The department notes that recruitment and stock abundance are highly variable from year to year and therefore the ecosystem does not depend on relatively static levels of scallop stock abundance. Consequently, ensuring adequate levels of spawning stock serves to achieve two objectives - a sustainable fishery, and minimising impacts on any trophic interactions. Other management measures such as gear restrictions, spatial and seasonal closures and limiting the number of operating vessels also further minimises the potential for impacts on bycatch species and other indirect impacts. In addition, the WA Department of Fisheries has advised that planned future research in other similar WA fisheries (Shark Bay Scallop and Abrolhos Islands and Mid West Trawl Managed Fisheries) will help to further minimise the potential for impacts in the future by expanding knowledge of the broader ecosystem.

The department recommends the WA Department of Fisheries continue to investigate the ongoing low scallop recruitment in the fishery (**Recommendation 3, Table 4**).

### 2.3.4

There are decision rules that trigger further management responses when monitoring detects impacts on selected ecosystem indicators beyond a predetermined level, or where action is indicated by application of the precautionary approach.

The department expects that if any of the assumptions made in 2.3.2 change through a review of the Ecological Risk Assessment or some other process in the future, that the WA Department of Fisheries will implement any necessary management arrangements to address the 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2<sup>nd</sup> Edition'.

### 2.3.5

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

Given the small scale of the fishery, small area trawled and the current management arrangements, the department considers that there is a high chance of this objective being achieved.

**Table 3: The Department of Sustainability, Environment, Water, Population and Communities' assessment of the Western Australian South Coast Trawl Fishery against the requirements of the EPBC Act related to decisions made under Parts 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 on the department's website.

**Part 13**

<b>Division 1 Listed threatened species</b> <b>Section 208A Minister may accredit plans or regimes</b>	<b>The department's assessment of the Western Australian South Coast Trawl Fishery</b>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p>i. made by a State or self-governing Territory; and</p> <p>ii. in force under a law of the State or self-governing Territory;</p> <p>if <b>satisfied</b> 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 WA South Coast Trawl Fishery will be managed under the <i>WA Fish Resources Management Act 1994</i> and the WA Fish Resources Management Regulations 1995.</p> <p>The management regime for the WA South Coast Trawl Fishery was last accredited in November 2005. The WA Department of Fisheries has advised the department that the fishery is now managed via exemption to the 'Fisheries Notice No. 556 Trawling Prohibition (Whole of State) Notice 1992' with the <i>WA Fish Resources Management Act 1994</i> and the WA Fish Resources Management Regulations 1995 providing the legislative framework for the management arrangements. The department considers that the management arrangements in place in the South Coast Trawl Fishery are sufficient to require persons engaged in fishing to take all reasonable steps to ensure that listed threatened species are not killed or injured as a result of the 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>Listed threatened species such as humpback whales, great white sharks and sea lions are known to occur in the South Coast Trawl Fishery. Information provided by the WA Department of Fisheries indicates that there have been very limited interactions with listed threatened species in Commonwealth waters and the likelihood of interactions with listed threatened species is low. Therefore, the department considers the current operation of the WA South Coast Trawl Fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>
<p><b>Division 2 Migratory species</b> <b>Section 222A Minister may accredit plans or regimes</b></p>	<p><b>The department's assessment of the Western Australian South Coast Trawl Fishery</b></p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> <li>i. made by a State or self-governing Territory; and</li> <li>ii. in force under a law of the State or self-governing Territory;</li> </ul> <p>if <b>satisfied</b> 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>The WA South Coast Trawl Fishery will be managed under the <i>WA Fish Resources Management Act 1994</i> and the <i>WA Fish Resources Management Regulations 1995</i>.</p> <p>The management regime for the WA South Coast Trawl Fishery was last accredited in November 2005. The WA Department of Fisheries has advised the department that the fishery is now managed via exemption to the Fisheries Notice No. 556 Trawling Prohibition (Whole of State) Notice 1992 with the <i>WA Fish Resources Management Act 1994</i> and the <i>WA Fish Resources Management Regulations</i> providing the legislative framework for the management arrangements. The department considers that the management arrangements in place in the South Coast Trawl Fishery are sufficient to require persons engaged in fishing, to take all reasonable steps to ensure that listed</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>migratory species are not killed or injured as a result of the fishing.</p> <p>Currently, evidence suggests that the WA South Coast Trawl Fishery only has minimal interactions with listed migratory species. Therefore, the department considers the current operation of the WA South Coast Trawl Fishery is not likely to adversely affect the conservation status of a listed migratory species or a population of that species.</p>
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**Part 13 (cont.)**

<b>Division 3 Whales and other cetaceans</b> <b>Section 245 Minister may accredit plans or regimes</b>	<b>The department's assessment of the Western Australian South Coast Trawl Fishery</b>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"><li>i. made by a State or self-governing Territory; and</li><li>ii. in force under a law of the State or self-governing Territory;</li></ul> <p>if <b>satisfied</b> 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 WA South Coast Trawl Fishery will be managed under the <i>WA Fish Resources Management Act 1994</i> and the <i>WA Fish Resources Management Regulations 1995</i>.</p> <p>The management regime for the WA South Coast Trawl Fishery was last accredited in November 2005. The WA Department of Fisheries has advised the department that the fishery is now managed via exemption to the Fisheries Notice No. 556 Trawling Prohibition (Whole of State) Notice 1992 with the <i>WA Fish Resources Management Act 1994</i> and the <i>WA Fish Resources Management Regulations 1995</i> providing the legislative framework for the management arrangements. The department considers that the management arrangements in place in the South Coast Trawl Fishery are sufficient to require persons engaged in fishing to take all reasonable steps to ensure that whales and cetaceans are not killed or injured as a result of the fishing.</p> <p>While humpback and southern right whales are known to occur in the fishery, current evidence suggests that the WA South Coast Trawl Fishery only has minimal interactions with whales or cetaceans. Therefore, the department considers the current operation of the WA South Coast Trawl Fishery is not likely to adversely affect the conservation status of a whale or cetacean or a population of that species.</p>

**Part 13 (cont.)**

<b>Division 4 Listed marine species</b> <b>Section 265 Minister may accredit plans or regimes</b>	<b>The department's assessment of the Western Australian South Coast Trawl Fishery</b>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> <li>i. made by a State or self-governing Territory; and</li> <li>ii. in force under a law of the State or self-governing Territory;</li> </ul> <p>if <b>satisfied</b> 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 WA South Coast Trawl Fishery will be managed under the <i>WA Fish Resources Management Act 1994</i> and the <i>WA Fish Resources Management Regulations 1995</i>.</p> <p>The management regime for the WA South Coast Trawl Fishery was last accredited in November 2005. The WA Department of Fisheries has advised the department that the fishery is now managed via exemption to the Fisheries Notice No. 556 Trawling Prohibition (Whole of State) Notice 1992 with the <i>WA Fish Resources Management Act 1994</i> and the <i>WA Fish Resources Management Regulations 1995</i> providing the legislative framework for the management arrangements. The department considers that the management arrangements in place in the South Coast Trawl Fishery are sufficient to require persons engaged in fishing to take all reasonable steps to ensure that listed marine species are not killed or injured as a result of the fishing.</p> <p>Currently, evidence suggests that the WA South Coast Trawl Fishery only has minimal interactions with listed marine species (syngnathids and sea snakes) due to the low number of operators and the small area trawled. Therefore, the department considers the current operation of the WA South Coast Trawl Fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species.</p>

**Part 13 (cont.)**

<b>Section 303AA Conditions relating to accreditation of plans, regimes and policies</b>	<b>The department's assessment of the Western Australian South Coast Trawl Fishery</b>
(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 WA South Coast Trawl Fishery be accredited under sections 208A, 222A, 245 and 265.
(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: (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	The department considers that no conditions are required for the accreditation of the management regime for the WA South Coast Trawl Fishery under Part 13.
(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 CITES<sup>2</sup> 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.

<sup>2</sup>Convention on International Trade in Endangered Species of Wild Fauna and Flora

## Part 13A

<b>Section 303DC Minister may amend list</b>	<b>The department's assessment of the Western Australian South Coast Trawl Fishery</b>
<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"><li>(a) including items in the list;</li><li>(b) deleting items from the list; or</li><li>(c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or</li><li>(d) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or</li><li>(e) correcting an inaccuracy or updating the name of a species.</li></ul>	<p>The department recommends that specimens derived from species harvested in the WA South Coast Trawl Fishery, other than specimens that belong to species listed under Part 13 of the EPBC Act, be included in the list of exempt native specimens while the WA South Coast Trawl Fishery 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>No assessment of the WA South Coast Trawl Fishery has been carried out under Part 10 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 may be taken 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 WA South Coast Trawl Fishery while covered by a wildlife trade operation declaration would be consistent with the objects of Part 13A as:</p> <ul style="list-style-type: none"> <li>▪ the fishery will not harvest any Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) listed species</li> <li>▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1)</li> <li>▪ the operation of the WA South Coast Trawl Fishery is unlikely to be unsustainable and threaten biodiversity within the next 3 years, and</li> <li>▪ the Environment Protection and Biodiversity Conservation Regulations 2000 do not specify scallops or fish as a class of animal in relation to the welfare of live specimens.</li> </ul>
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<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"> <li>(a) must consult such other Minister or Ministers as the Minister considers appropriate; and</li> <li>(b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and</li> <li>(c) may consult such other persons and organisations as the Minister considers appropriate.</li> </ul>	<p>The department considers that the consultation requirements have been met. The application from the WA Department of Fisheries was released for public comment from 6 March 2013 to 10 April 2013. The public comment period sought comment on:</p> <ul style="list-style-type: none"> <li>▪ the proposal to amend the list of exempt native specimens to include product derived from the WA South Coast Trawl Fishery, and</li> <li>▪ the WA Department of Fisheries application for the WA South Coast Trawl Fishery.</li> </ul> <p>One comment was received.</p>
<p>(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.</p>	<p>The instrument for the WA South Coast Trawl Fishery made under section 303DC will be gazetted and made available through the department's website.</p>



Section 303FN Approved wildlife trade operation	The department's assessment of the Western Australian South Coast Trawl Fishery
(2) The Minister may, by instrument published in the <i>Gazette</i> , declare that a specified wildlife trade operation is an <b><i>approved wildlife trade operation</i></b> 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 <b>satisfied</b> that:</p> <p>(a) the operation is consistent with the objects of Part 13A of the Act; and</p> <p>(b) the operation will not be detrimental to:</p> <ol style="list-style-type: none"> <li>i. the survival of a taxon to which the operation relates; or</li> <li>ii. the conservation status of a taxon to which the operation relates; and</li> </ol>	<p>The department considers that the operation of the WA South Coast Trawl Fishery is consistent with the objects of Part 13A as:</p> <ul style="list-style-type: none"> <li>▪ the fishery will not harvest any CITES listed species</li> <li>▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1)</li> <li>▪ the operation of the WA South Coast Trawl Fishery is unlikely to be unsustainable and threaten biodiversity within the next 3 years, and</li> <li>▪ the EPBC Regulations 2000 do not specify scallops or fish as a class of animal in relation to the welfare of live specimens.</li> </ul> <p>The department considers that the WA South Coast Trawl Fishery will not be detrimental to the survival or conservation status of a taxon to which it relates within the next <b>3 years</b>, given the management measures currently in place, which include:</p> <ul style="list-style-type: none"> <li>▪ limited entry</li> <li>▪ gear restrictions</li> <li>▪ seasonal and spatial closures, and</li> <li>▪ catch rate cut off of 150 kg/day which, if reached in an area, ceases fishing in that area.</li> </ul> <p>The department considers that the WA South Coast Trawl Fishery will</p>

<p>(ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and</p> <p>(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>not threaten any relevant ecosystem within the next <b>3 years</b>, given the management measures currently in place, which include:</p> <ul style="list-style-type: none"> <li>▪ limited entry</li> <li>▪ gear restrictions</li> <li>▪ seasonal and spatial closures, and</li> <li>▪ catch rate cut off of 150 kg/day which, if reached in an area, ceases fishing in that area.</li> </ul> <p>The Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) do not specify scallops or 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 <b>regard</b> 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 department considers that the WA South Coast Trawl Fishery will not have a significant impact on any relevant ecosystem within the next <b>3 years</b>, given the management measures currently in place, which include:</p> <ul style="list-style-type: none"> <li>▪ limited entry</li> <li>▪ vessel and gear restrictions</li> <li>▪ seasonal and spatial closures, and</li> <li>▪ catch rate cutoff of 150 kg/day which if reached in an area, ceases fishing in that area.</li> </ul>

<p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<p>The management arrangements that will be employed for the WA South Coast Trawl Fishery are likely to be effective throughout the duration of the approved wildlife trade operation declaration (three years) due to the small number of operators (four) and the small area trawled.</p>
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have <b>regard</b> 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 WA South Coast Trawl Fishery will be managed under the <i>WA Fish Resources Management Act 1994</i> and the <i>WA Fish Resources Management Regulations 1995</i>.</p> <p>The <i>WA Fish Resources Management Act 1994</i> applies throughout Western Australian waters.</p> <p>The legislation is likely to be effective.</p>
<p>(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, and only if, the operation is an operation for the taking of specimens and:</p> <p>(d) the operation is a commercial fishery.</p>	<p>The WA South Coast Trawl Fishery is a commercial fishery.</p>

Section 303FR Public consultation	The department's assessment of the Western Australian South Coast Trawl Fishery
<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"> <li>(a) setting out the proposal to make the declaration; and</li> <li>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</li> <li>(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.</li> </ul>	<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 WA South Coast Trawl Fishery an approved wildlife trade operation and included the submission, was released for public comment which closed on 10 April 2013 with one submission 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 WA South Coast Trawl Fishery a wildlife trade operation and included the submission, was released for public comment on 6 March 2013 and closed on 10 April 2013, a total of 22 business days.</p>
<p>(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.</p>	<p>The public comment received on the submission is included at <b><u>Attachment C</u></b> of the brief. The department's assessment has considered the public comment received on the submission.</p>

Section 303FT Additional provisions relating to declarations	The department's assessment of the Western Australian South Coast Trawl Fishery
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	A declaration for the WA South Coast Trawl Fishery will be made under section 303FN.
<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>In such a case, the instrument of declaration is to specify the period, circumstances or condition.</p>	<p>The standard conditions applied to commercial fishery wildlife trade operations include:</p> <ul style="list-style-type: none"> <li>▪ operation in accordance with the management regime</li> <li>▪ notifying the department of changes to the management regime, and</li> <li>▪ annual reporting in accordance with the requirements of the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'.</li> </ul> <p>The wildlife trade operation instrument for the WA South Coast Trawl Fishery specifies the standard and any additional conditions applied.</p>
(8) A condition may relate to reporting or monitoring.	Condition 3 on the approved wildlife trade operation declaration 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 WA South Coast Trawl Fishery made under section 303FN and the conditions under section 303FT will be gazetted and made available through the department's website.

## Part 12

<b>Section 176 Bioregional Plans</b>	<b>The department's assessment of the Western Australian South Coast Trawl Fishery</b>
(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.	The Marine bioregional plan for the South-west Marine Region has been considered in the preparation of advice in relation to decisions under section 303DC and section 303FN. Chemicals and pollutants, the extraction of living resources, bycatch and invasive species are pressures operating within the South-west marine bioregional planning area in which the WA South Coast Trawl Fishery operates. Bycatch of seasnakes and seahorses is also a recognised pressure of potential concern. However, the Western Australian South Coast Trawl Fishery Ecological Risk Assessment 2005 assessed impacts of the fishery to the physical ecosystem as negligible due to the small number of operators (four) and the small area trawled. In addition, an annually reviewed catch rate trigger of 150 kg/day restricts the removal of scallops from the ecosystem.

## Part 16

<b>Section 391 Minister must consider the precautionary principle in making decisions</b>	<b>The department's assessment of the Western Australian South Coast Trawl Fishery</b>
(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.	Having regard to the precautionary management measures in place in the fishery, summarised in Table 1, the department considers that the precautionary principle has been accounted for in the preparation of advice in relation to a decision under section 303DC and section 303FN.
(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.	

**The Department of Sustainability, Environment, Water, Population and Communities' final conditions and recommendations to the Western Australian Department of Fisheries for the WA South Coast Trawl Fishery**

The material submitted by the Western Australian Department of Fisheries demonstrates that the management arrangements for the Western Australian South Coast Trawl Fishery meet most of the requirements of the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' (the Guidelines).

**Stock Status**

According to the 'Status reports of the fisheries and aquatic resources of Western Australia 2011/12', the target scallop stocks have been assessed to be 'adequate'. This assessment indicates that annual variations in recruitment to the parental biomass are due to environmental impacts, rather than fishing pressure.

The number of operators in the fishery is restricted to four and while the boundaries of the fishery cover a large section of the south coast, fishers generally operate over a small proportion of the licensed area, therefore the total area impacted by fishing is small. Management measures in place in the fishery include:

- limited entry
- input controls including headrope length, standardised nets and net mesh size
- target catch rate level which if reached, closes the fishery
- an industry crew limit of 8 for the 2013 season
- seasonal and area closures, and
- mandatory use of bycatch reduction devices.

The department considers that the range of management measures is sufficient to ensure that commercial scallop fishing by trawling is undertaken in a manner that does not lead to over-fishing and that stocks are not currently overfished.

**Ecosystem Impacts**

Taking into account the management measures described above, the department considers that the management regime for the WA South Coast Trawl Fishery 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 the need for appropriate management targets for take of scalefish.

The key challenges for this fishery will be ensuring the Ecological Risk Assessment and the Bycatch Action Plan matrix for the fishery appropriately address any new risks, ensuring adequate monitoring for bycatch and protected species, and investigating causes for recruitment variability of the target stock.

The department considers that, until it can be demonstrated that these issues have been adequately addressed, declaration of the harvest operations of the WA South Coast Trawl Fishery as an approved wildlife trade operation for three years, until 6 May 2016, 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: Western Australian (WA) South Coast Trawl Fishery Assessment – Summary of Issues and Recommendations – May 2013**

Issue	Condition
<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 Sustainability, Environment, Water, Population and Communities 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 decisions. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem.</p>	<p><b>Condition 1:</b></p> <p>Operation of the Western Australian (WA) South Coast Trawl Fishery will be carried out in accordance with the management regime in force under the <i>WA Fish Resources Management Act 1994</i>.</p> <p><b>Condition 2:</b></p> <p>The WA Department of Fisheries to inform the Department of Sustainability, Environment, Water, Population and Communities of any proposed changes to the WA South Coast Trawl Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are based.</p>



<p><u>Annual reporting</u></p> <p>It is important that reports be produced and presented to the Department of Sustainability, Environment, Water, Population and Communities 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.</p> <p>The department notes that the WA Department of Fisheries reports on most aspects of the fishery's performance in the annual 'Status reports of the fisheries and aquatic resources of Western Australia', however more detailed information on protected species interactions, management arrangements and target stocks should be included in future.</p> <p>Annual reports should 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 protected species, impacts of the fishery on the ecosystem in which it operates and information outlining progress in implementing conditions and recommendations resulting from the previous accreditation of the fishery (for a complete description of annual reporting requirements, see Appendix B of the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' available from the department's website at <a href="http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html">http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html</a>).</p>	<p><b>Condition 3:</b></p> <p>The WA Department of Fisheries 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><u>Risk to byproduct species</u></p> <p>The department acknowledges that the current level of scalefish take in the fishery is low; however catch records from previous years show that targeting of scalefish may take place in years of low scallop abundance, such as occurred in the 1990s. An assessment of the risk levels for each asset in the South Coast Bioregion in the 'Status reports of the fisheries and aquatic resources of Western Australia 2011/12' lists the risk to demersal scalefish in south coast fisheries as high, due to the potential for increased targeting of these stocks in the near future.</p> <p>The department is not aware of a broader plan to manage demersal scalefish take across south coast fisheries in WA, and therefore considers that the development of appropriate trigger limits for scalefish management within the South Coast Trawl Fishery is important. Trigger limits should be developed that consider key byproduct species' biology, stock status and take from adjacent fisheries.</p> <p>Appropriate management measures in response to trigger limits being reached should also be developed. These might include increased monitoring or restrictions on fishing effort. An appropriate monitoring strategy should aim to determine stock levels and any impacts targeted fishing may have on byproduct species.</p>	<p><b>Condition 4:</b></p> <p>The WA Department of Fisheries to develop appropriate trigger limits and associated management responses for scalefish catch in the fishery.</p>

Issue	Recommendation
<p><u>Ecological Risk Assessment</u></p> <p>Ecological Risk Assessments (ERA) are considered important tools in identifying risks to target, bycatch and byproduct species, risks to protected species and risks to the ecosystem and ecological communities. The department acknowledges that the most recent ERA for the fishery was completed in 2005 and that while effort in the fishery remains low, updating the ERA may not be a high priority. However, if effort in the fishery increases significantly above levels assessed in the 2005 ERA, the department recommends that the WA Department of Fisheries review the 2005 ERA to ensure any new risks are identified and appropriate mitigation measures are implemented.</p>	<p><b>Recommendation 1:</b></p> <p>Should effort levels increase significantly above those assessed in the 2005 Ecological Risk Assessment (ERA) for the fishery, the WA Department of Fisheries to complete a review of the ERA to ensure that any new risks are identified and appropriate mitigation measures are implemented.</p>
<p><u>Monitoring bycatch and protected species interactions</u></p> <p>While negligible bycatch has been recorded in this fishery, appropriate bycatch monitoring and ongoing research is important to ensure that impacts to bycatch species remain low.</p> <p>A biodiversity survey was undertaken in Shark Bay in 2002 to determine the impacts of trawling on biodiversity. The results of this survey have been applied to all WA trawl fisheries including the South Coast Trawl Fishery. A key management response to the survey was a focus on reducing effort and trawl area in WA trawl fisheries and to mandate the use of bycatch reduction devices in all trawl fisheries, including the South Coast Trawl Fishery. Use of these devices, along with fish exclusion devices, is known to reduce the level of bycatch as well as the risk of protected species interactions. Ongoing bycatch management actions for the South Coast Trawl Fishery are informed by the Bycatch Action Plan (BAP) Matrix for all trawl fisheries in the Gascoyne and West Coast Bioregion. This BAP Matrix is scheduled for review every two years.</p> <p>The department is aware that bycatch has been historically low in this fishery and that the trawled area is a small percentage of the total fishery. The department recommends that the WA Department of Fisheries undertake an appropriate level of ongoing research and/or monitoring to ensure that the actions directed through the BAP Matrix remain relevant to the fishery. Should the outcomes of the BAP matrix change, or potential reviews of the ERA process indicate other risks, the department expects that appropriate action will be taken to ensure the fishery avoids mortality or injury to protected species, avoids or minimises impacts on threatened ecological communities and avoids excessive take of other bycatch species.</p>	<p><b>Recommendation 2:</b></p> <p>WA Department of Fisheries to:</p> <ul style="list-style-type: none"> <li>a) conduct appropriate ongoing research and/or monitoring to determine whether the actions undertaken in the Bycatch Action Plan Matrix remain sufficient to minimise risk to bycatch species in the fishery</li> <li>b) set appropriate trigger levels to initiate the implementation of a mitigation strategy to lower the impact on protected species if required, and</li> <li>c) initiate a data validation program to ensure protected species interactions are reported correctly.</li> </ul>

<p><b><u>Maintaining target stocks</u></b></p> <p>The department accepts that scallop stocks undergo natural variation in abundance due to environmental fluctuations and is aware of ongoing research undertaken by the WA Department of Fisheries to investigate low recruitment of scallops when that occurs. The department recommends that the WA Department of Fisheries continue to investigate alternate management arrangements to ensure potential discarding of smaller scallops is not detrimental to the spawning stock when recruitment is low.</p> <p>A Fisheries Research and Development Corporation project undertaken from 2008 to 2011 included an examination of the mesh shape and size of codends used in the Shark Bay Scallop Fishery. This project found that 55 mm and 60 mm square mesh retained significantly less smaller scallops and other bycatch than the current 100 mm diamond mesh codend. The department recommends the continued investigation of square mesh or improved net mesh design for codends with the aim of minimising bycatch and reducing the retention rate of unwanted undersize scallops.</p>	<p><b>Recommendation 3:</b></p> <p>WA Department of Fisheries to:</p> <ul style="list-style-type: none"> <li>a) continue to investigate the causes contributing to the variability in ongoing low recruitment of scallops, and develop and implement strategies to address these where appropriate.</li> <li>b) continue the evaluation of alternative fishing gears to reduce bycatch and the retention of unwanted smaller scallops, and encourage uptake of alternative gears where appropriate.</li> </ul>
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## References

Caputi, N, Fletcher, W, J and Pearce, A (1996). Effect of the Leeuwin Current on the recruitment of fish and invertebrates along the Western Australian Coast. *Marine and Freshwater Research*, Vol 47, Pp 147-155