



Australian Government

Department of the Environment, Water, Heritage and the Arts

Assessment of the
South Australian Prawn Trawl Fishery

October 2009

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Disclaimer

This document is an assessment carried out by the Department of the Environment, Water, Heritage and the Arts 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, Heritage and the Arts 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, Heritage and the Arts or the Australian Government.

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Table 1: Summary of the South Australian (SA) Prawn Trawl Fishery

Publicly available information relevant to the fishery	<ul style="list-style-type: none"> • SA Submission 2009 • <i>Fisheries Management (General) Regulations 2007</i> • <i>Fisheries Management Act 2007</i> • <i>Fisheries Management (Prawn Fisheries) Regulations 2006</i> • <i>South Australian Fisheries Resources, Current Status and Recent Trends, 2006</i> • DEWHA Assessment Report - 2004 • SA Submission 2004
Area	1) Spencer Gulf, South Australia, in water depth greater than 10 m 2) Gulf St Vincent, South Australia, in water depth greater than 10 m 3) West Coast – Oceanic waters around Nuyts Archipelago, Anxious Bay and Coffin Bay, South Australia.
Fishery status	Fully fished, overfished and environmentally limited. <i>(see South Australian Fisheries Resources, Current Status and Recent Trends, 2006)</i>
Target Species	Western King Prawn - <i>Penaeus (Melicertus) latisulcatus</i> .
Byproduct Species	Spencer Gulf and Gulf St Vincent fisheries (SGPF and GSVPF): Slipper Lobster (<i>Ibacus</i> species) and Calamary squid (<i>Sepioteuthis australis</i>) West Coast Prawn Fishery (WCPF): Slipper Lobster (<i>Ibacus</i> species); Calamary squid (<i>Sepioteuthis australis</i>); Octopus (<i>Octopus</i> species); Scallop (Family <i>Pectinidae</i>); Arrow Squid (<i>Notodarus gouldii</i>).
Gear	- Trawling – demersal otter trawl - Single, double or triple rig.
Season	SGPF – no trawling during: <ol style="list-style-type: none"> 1) daylight hours; 2) January to February; and 3) July to October. GSVPF: As above WCPF - No trawling during: <ol style="list-style-type: none"> 1) daylight hours; and 2) January, May and October. Area Closures: <ol style="list-style-type: none"> 1) Adjusted based on survey results for the fisheries; 2) No trawling in waters shallower than 10 m;

	<p>3) No fishing in aquatic reserves; and</p> <p>4) Other informal industry based closures which apply</p>
Commercial harvest [most recent period available]	<p>GSVPF – total catch in 2007/2008 = 243.4 t. This is a 9% increase to 2006/2007 and a 41% increase since 2003/2004, which was 172t.</p> <p>WCPF – 11.7 t in 2007 and 84.0 t in 2008. This is an increase compared to 2006 which had zero total catch recorded.</p> <p>SGPF – total catch = 2,028 t in 2007/2008. This is an increase compared to the previous 5 year average which was 1,850 t.</p>
Value of commercial harvest	<p>SPGPF: \$32.1 million</p> <p>GSV: \$2.9 million</p> <p>WCPF: \$0.8 million</p>
Take by other sectors	<p>Recreational catch is to be taken from waters deeper than 10m using hand held nets.</p> <p>Recreational, indigenous and illegal prawn catch is considered negligible. PIRSA conducts random inspections (port and at sea) to monitor illegal catch.</p>
Commercial licences issued	Spencer Gulf: 39 licences
Commercial licences issued	Spencer Gulf: 39 licences
Management arrangements	<p>The fishery is managed under <i>Fisheries Management (Prawn Fisheries) Regulations 2006</i> and the <i>Fisheries Management (General) Regulations 2007</i>, in force under the <i>Fisheries Management Act 2007</i> (South Australia).</p> <p>Management measures include limited entry; seasonal and area closures; daylight and moon closures; minimum trawl depth; gear and vessel restrictions; limits on total prawn catch prior to spawning season and size limit and prohibition on retention of berried females for slipper lobster.</p>
Export	Domestic market and export to various locations worldwide, including China, United Kingdom, United States of America, South Africa, Japan, Malaysia, Korea, Hong Kong, Italy, Spain and others.

Bycatch	<p>SGPF: Mainly Blue Crab and small finfish species</p> <p>GSVPPF: Mainly small finfish species</p> <p>WCPF: Mainly small finfish species</p>
Interaction with Protected Species¹	<p>Low incidence of interaction in the fishery, however, some interaction with Dolphins and Leafy Sea dragon does occur.</p> <p>All interactions are required to be reported to Department of Primary Industries and Resources South Australia (PIRSA) and Department of Environment, Water, Heritage and the Arts (DEWHA), including , collision, capture (hooked, netted or entangled) and those being landed on the vessel.</p>
Ecosystem Impacts	<p>Each of the fisheries has measures in place to including limits on vessels, amount/type of gear and permanent area closures – no trawling in waters less than 10m.</p>
CITES:	<p>No specimens listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) are permitted to be harvested in the fishery. Therefore no assessment of the SA Prawn Trawl Fishery impact on specimens listed under CITES has been conducted.</p>

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

Table 2: Progress in implementation of recommendations made in initial assessment of the SA Prawn Trawl Fishery

Recommendation	Progress	Recommended Action
<p>1. PIRSA to advise DEH of any material change to the management arrangements for the Spencer Gulf Prawn Fishery, Gulf St Vincent Prawn Fishery and the West Coast Prawn Fishery that could affect the criteria on which EPBC decisions are based, within 3 months of that change being made.</p>	<p>PIRSA will continue to advise DEWHA of any material changes to management of the fishery.</p>	<p>The former South Australian <i>Fisheries Act 1982</i> has been replaced with the <i>Fisheries Management Act 2007</i>.</p> <p>DEWHA consider this ongoing. This recommendation will be continued.</p> <p>(See Recommendations 1 and 2).</p>
<p>2. The current review of South Australia's <i>Fisheries Act 1982</i> should provide for the inclusion of general community and conservation interests on fisheries management committees. PIRSA to ensure that recreational, general community and conservation interests are provided the opportunity to engage regularly with the Prawn Fisheries Management Committee. Greater efforts should also be made to increase conservation and general community involvement in any additional stock assessments and research priority setting processes.</p>	<p>PIRSA has confirmed the following progress:</p> <ul style="list-style-type: none"> • The new Fisheries Management Act 2007, implemented a formal co-management framework through the Fisheries Council of South Australia, replacing former fisheries management committees; and • Implementation of formal consultative agreements with industry associations. <p>PIRSA also intend to develop a co-management framework for the SGPF through an FRDC funded project (see Submission).</p>	<p>DEWHA consider this recommendation as met.</p> <p>DEWHA acknowledges the implementations of a formal co-management framework with the introduction of the new Fisheries Management Act 2007. PIRSA has confirmed that the new Act requires formal public consultation, ecological risk assessments and the fisheries council is based on a wide range of stakeholder expertise.</p> <p>DEWHA also acknowledge PIRSA's intention to have in place by July 2010, a co-management framework for the SGPF through the current Fisheries Research and Development Corporation (FRDC) project entitled <i>Competition to Collaboration: Exploring Co-management Models for the Spencer Gulf Prawn Fishery</i>.</p> <p>With the view towards future ecosystem based fishery management, and given the importance of therefore ensuring that industry, conservation and the general community interests are recognised, DEWHA strongly encourage PIRSA to ensure</p>

		future consultative management arrangements and frameworks continue to incorporate the requirement to engage with these groups.
3. By December 2005, PIRSA to develop and implement a compliance strategy for the South Australian Prawn Fisheries that is reviewable and publicly available, to address compliance and enforcement risks identified in the compliance risk assessment of the prawn fisheries.	DFWA has advised a Compliance Operational Plan has been incorporated into the fishery Management Plans, with a review of the compliance risk assessment occurring every 2-3 years.	<p>DEWHA considers this recommendation has been partially met.</p> <p>DEWHA notes that the compliance risk assessment is conducted every 2-3 years. As the aim of the compliance operational plan is to address compliance and enforcement risk identified in the compliance risk assessment of the prawn fisheries, DEWHA expects PIRSA to review the Compliance Operational Plan in line with the risk assessment review every 2-3 years. The Compliance Operational Plan is to then be updated accordingly.</p> <p>The Submission states that this has been incorporated into the mgt plans. However, as WCPF does not have a mgt plan, this recommendation has been raised in order to ensure a compliance strategy is included in the WCPF new mgt arrangements being finalised in 2010.</p> <p>This recommendation will be continued in a revised form. See Recommendation 5, Table 4.</p>
4. By the end of 2005, PIRSA to ensure that information on the size composition of prawn catch is collected and monitored on an ongoing basis in the Gulf St Vincent Prawn Fishery and the West Coast Prawn Fishery.		<p>DEWHA commend DFWA on their progress to date with the modification of the daily commercial logbooks for GSVPF and WCPF, to include size composition data. DEWHA expect PIRSA to continue to ensure logbooks are completed along with this information, on a daily basis.</p> <p>As stated in the previous assessment report (2004), the recording of byproduct and bycatch information should be incorporated in the log books on a daily basis and this was something being considered by PIRSA.</p> <p>DEWHA considers validation of prawn sizes and catch assists in</p>

		<p>providing valuable data for the monitoring of prawn stocks across all of the fisheries in the SA Prawn Trawl, particularly in relation to prawn recruitment and productivity of the fishing grounds. As stated in the Guidelines (2nd Edition) and as highlighted in the previous assessment:</p> <p>Principle 1 - <i>‘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’.</i></p> <p>Objective 1 – <i>‘ 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’.</i></p> <p>DEWHA notes the stock declines over the past years and the beginnings of recovery, as stated in the 2009 status report. As this is still of some concern due to early stages of recovery and due to the SA Fisheries Resources, Current Status and Recent Trends, 2006 stating that the fisheries are ‘fully fished, overfished and environmentally limited’, DEWHA considers it a precautionary measure to ensure this recommendation is included for the next term of export status.</p> <p>DEWHA acknowledges that the SGPF has already been collecting information on size composition through their daily logbooks. DEWHA commend DFWA on their progress to date with the modification of the daily commercial logbooks for the GSVPF and WCPF.</p> <p>In addition, PIRSA has confirmed that they obtain prawn size and catch validation data through the survey process which occurs 3-4 times a year. DEWHA recommend PIRSA continue to ensure prawn size and catch validation data occurs through</p>
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		<p>this survey process (3-4 times a year) for the fisheries. Based on this and, in view of progressing the fishery towards an ecosystem based focus of management in the future, DEWHA encourage PIRSA to ensure that the WCPF and GSVPF fisheries are now brought up to the same standard of data collection, including size composition of prawn catch as the SGPF.</p> <p>DEWHA encourage PIRSA to continue to maintain a robust system to validate catch and effort logbook data and ensure logbooks are completed along with this information on a daily basis for all three fisheries. PIRSA should also ensure this information is taken into account, when reviewing and finalising all three formal management plans and arrangements for the fisheries during 2010 and 2011.</p> <p>This recommendation will continue in a revised form, as Recommendation 6, Table 4.</p>
<p>5. By December 2005, PIRSA to review the performance indicators and performance measures used in the assessment of Western King prawns stock status in the Gulf St Vincent Prawn Fishery and the West Coast Prawn Fishery, to ensure that they are appropriately precautionary and sufficient to detect significant changes in stock status.</p>	<p>PIRSA has confirmed that new performance indicators, performance measures and decision rules have been developed in the revised management plans for the SGPF and GSVPF.</p> <p>It is also stated by PIRSA that the current management plans for SPGF and GSVF are due to be reviewed in 2011.</p> <p>However, PIRSA has advised that progress for development of performance indicators,</p>	<p>DEWHA consider this recommendation partially met.</p> <p>DEWHA is aware that two of the three prawn fisheries have formal management plans – being GSVPF and the SGPF. DEWHA also acknowledges that these operate for five years and are subject to annual review and amendments as considered necessary by the Fisheries Council, Director of Fisheries or the Minister for Agriculture, Food and Fisheries. As such, DEWHA notes that these plans are due for formal review and update in 2011 as stated in the Submission.</p> <p>The smaller WCPF fishery does not currently have a formal management plan, and is currently managed through less formal arrangement within the SGPF management plan. DEWHA encourages the SA Prawn Trawl Fishery to progress towards an ecosystem based approach and as such, each of the</p>

	<p>performance measures and decision rules for the West Coast fishery is currently ongoing, due to pending stock recovery and development of the Management Plan.</p> <p>It was also indicated, that during the 2008 fishing season, the WCPF was managed using two key performance indicators and reference points. PIRSA is currently in the process of developing updated and more formal arrangements for the WCPF, in partnership with the WCPF to assist in addressing this issue.</p> <p>This arrangement is expected to be implemented through a policy statement by the start of 2010.</p>	<p>fisheries should ideally have formal management plans to ensure a responsible and ecologically sustainable approach to the management of the fishery can be maintained. This is particularly important in regard to the development of a harvest strategy for each fishery.</p> <p>See revised Recommendation 4, Table 4.</p>
<p>6. PIRSA to ensure that the recreational harvest of Western King prawns is monitored and factored into the management of the Spencer Gulf Prawn Fishery and the Gulf St Vincent Prawn Fishery.</p>	<p>PIRSA has advised that a comprehensive survey of the recreational fishery catch and effort for all South Australian commercially important species was undertaken during 2008/09, resulting in recreational harvest of prawns in SA to be negligible (Jones, 2009, in review).</p>	<p>DEWHA acknowledges the implementation of a comprehensive survey of the recreational fishery catch and effort for all South Australian commercially important species, conducted in 2008/2009. DEWHA also notes that this survey found there to be negligible recreational harvest of prawn occurring at that time.</p> <p>DEWHA acknowledge through the reports, that recreational harvest is considered negligible and therefore, this recommendation is considered met.</p>

	<p>PIRSA has stated they will continue consultation with SARDI to ensure estimates are factored into stock assessment reports, if recreational harvest is found to be occurring at any point in time.</p>	<p>However, DEWHA considers that due to the fisheries being located in close proximity to the population centres in the area, it remains an important requirement that this type of information is monitored and factored into reports where relevant. Although the WCPF is a little more remote, DEWHA consider that it is equally as important to ensure that all three fisheries have the same standard of monitoring in place.</p> <p>As recreational harvest is negligible in this fishery, this recommendation will not be continued. However, given the pending review of management plans for the fisheries and the current stock recovery in progress for WCPF, along with the pending development of a formal management arrangements for WCPF, DEWHA consider PIRSA should continue to monitor the recreational harvest of prawns (Western King prawns) for the three fisheries. This will ensure any future occurrences of recreational harvest, are factored into the stock assessment reports.</p>
<p>7. PIRSA to develop and implement harvest strategies for all by-product species taken in the Spencer Gulf Prawn Fishery, Gulf St Vincent Prawn Fishery and the West Coast Prawn Fishery within 2 years. Harvest strategies should clearly articulate performance indicators and performance measures and any specific management arrangements to be applied to by-product species permitted in the fisheries.</p>	<p>PIRSA has advised that Harvest Strategies have been included in the revised management plans, including regulations for protection of egg-bearing female slipper lobsters, and size limits.</p> <p>A periodic stock assessment report for Squid is carried out through the Marine Scalefish Fishery.</p>	<p>DEWHA consider this Recommendation to be partially met.</p> <p>DEWHA acknowledges the implementation of revised management plans and harvest strategies for the GSVPF and SGPF. However, it is noted in the submission that there is currently no formal management plan or harvest strategy for the WCPF.</p> <p>DEWHA acknowledges that each of the SA Prawn fisheries management is aiming to reduce impacts on non-target species (and the ecosystem) and acknowledges the implementation of revised management plans, incorporating harvest strategies for the GSVPF and SGPF.</p> <p>DEWHA also notes the studies undertaken determining effects</p>

		<p>of fishing on non-target species in the SGPF, which PIRSA intends to apply to a semi-quantitative risk assessment for bycatch in the SGPF.</p> <p>PIRSA has stated that a bycatch sampling program is underway for the GSVPF, with the intention of producing a similar risk assessment process as mentioned above for the SGPF. Current regulations included in the harvest strategies and management plans include: protection of egg-bearing female slipper lobsters, size limits; and a periodic squid stock assessment report.</p> <p>DEWHA therefore expects the harvest strategy to be incorporated into the new formal management policy for the WCPF. The harvest strategy should, as appropriate, clearly articulate performance indicators, performance measures and relevant specific management arrangements to be applied to byproduct species permitted in the fisheries.</p> <p>This Recommendation remains ongoing. See revised Recommendation 4, Table 4.</p>
<p>8. By December 2006, PIRSA to develop a system for the ongoing collection and monitoring of information on bycatch and byproduct species taken in the Gulf St Vincent Prawn Fishery and the West Coast prawn Fishery sufficient to enable identification of long-term trends in bycatch and by-product. In the event that catch levels of any bycatch or by-product species change, PIRSA will investigate suitable</p>	<p>As DFWA indicates in their Submission, this recommendation will not be pursued as a modified approach to bycatch monitoring has been developed upon previous agreement with DEWHA.</p> <p>Also noted, is that commercial logbooks have been modified to now include byproduct data for the GSVPF and WCPF.</p> <p>During 2005, South Australian</p>	<p>This recommendation has been discontinued, as outlined in progress column.</p>

management responses.	<p>Research and Development Institute (SARDI) completed a report reviewing independent bycatch information collected over a number of years in the SGPF, with the outcome indicating that establishing statistically meaningful performance measures was likely to be an unattainable goal for any of the three SA Prawn Fisheries.</p> <p>Due to this PIRSA developed a new strategy to address critical issues for the assessment of the bycatch and byproduct species for the three prawn fisheries.</p> <p>PIRSA previously advised DEWHA previously that the SGPF conducted a bycatch survey in February 2007, intended to underpin a semi-quantitative risk assessment, assisting to identify levels of risk for individual species, including the development of management responses and mitigations strategies for the high risk species. PIRSA's intention was for this to replace the long term trend monitoring for abundance in the SGPF.</p>	
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	<p>PIRSA confirmed that qualitative risk assessments would be conducted for the GSVPF and the WCPF (see Recommendation 9) and necessary management responses and strategies would be incorporated for high risk components of the fishery.</p> <p>For these reasons, it was previously agreed by PIRSA and DEWHA that Recommendations 8 and 11 of the current assessment would be discontinued.</p>	
<p>9. PIRSA to conduct a bycatch risk assessment in the Gulf St Vincent Prawn Fishery and the West Coast Prawn Fishery and develop suitable management responses for any species identified as high risk.</p>	<p>In their Submission PIRSA has advised that their goal is to reduce the impact on the ecosystem, which is incorporated into the current management plans.</p> <p>As part of this goal, they have developed objectives and strategies for the fisheries, which include:</p> <ul style="list-style-type: none"> - implementation of structured bycatch surveys; - data collection and analysis; - undertaking risk assessments; and - Implementation of appropriate management measures and 	<p>DEWHA consider this to be partially met.</p> <p>DEWHA acknowledges the progress to date in regard to the development of research studies and proposed strategies for each of the fisheries. However, DEWHA consider there has been minimal progress achieved to date in regard to the implementation of improved management measures and responses due to pending risk assessment processes.</p> <p>DEWHA encourage PIRSA to focus on raising the standard of bycatch data collection for GSVPF and WCPF, in line with the level of that currently in place for SGPF. As was stated in the 2004 assessment, this will assist in ensuring that the three fisheries will have increased understanding and mitigation responses to impacts on bycatch species in the future. This is particularly important with the view to progressing towards an ecosystem based management approach for the SA Prawn Trawl Fisheries.</p>

	<p>mitigation responses.</p> <p>SGPF: A comprehensive survey on distribution and abundance of all species in the fishery) was conducted for SGPF in 2007. PIRSA has advised this will be followed by the semi-quantitative risk assessment and implementation of appropriate management responses and mitigation strategies for high risk species identified.</p> <p>GSVPF: Data collection has begun for this fishery, which as DEWHA understand, will be followed by the data analysis, risk assessment and management/mitigation responses to high risk species identified in the assessment process.</p> <p>WCPF: Due to low fishing effort in this fishery, as a response to prolonged period of stock decline. PIRSA has advised they intend to develop a bycatch program through liaison</p>	<p>Based on this and given that progress on this recommendation has been largely ongoing since the 2004 assessment, DEWHA expect to see firm management decisions and appropriate mitigation responses in place in each of the three fisheries within the new exemption period. This will allow for the completion of the management policy for the WCPF, the data collection/analysis and risk assessment processes in all of the fisheries</p> <p>See revised Recommendation 7, Table 4.</p>
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	with licence holders. This will be based on appropriate levels relevant to the size of the fishery.	
10. PIRSA to continue to pursue reduction in the amount of bycatch taken in the Spencer Gulf Prawn Fishery, Gulf St Vincent Prawn Fishery and West Coast Prawn Fishery through the adoption and refinement of bycatch mitigation technology and to investigate methods for increasing the survivability of bycatch species. Any suitable methods identified will be implemented in a timely manner.	<p>PIRSA has advised in their Submission, that they are currently in the process of conducting data analysis on the survival of bycatch species, looking at the effects of fishing on non-target species in the SGPF (Currie, et al. 2009). This is intended to be followed by a semi-quantitative risk assessment.</p> <p>In the GSVPF, a bycatch sampling programme is underway, to be followed by a risk assessment process similar to that being conducted in the SGPF.</p> <p>PIRSA indicated in their Submission that there have been technological advances to the way catch is handled and sorted, with bycatch returned to the sea. Such methods include the use of hoppers, crab bags and a conveyer system (see Submission for further details).</p> <p>However, DEWHA recommend PIRSA to now focus on the</p>	<p>DEWHA considers this Recommendation to be partially met.</p> <p>DEWHA commends the implementation of the catch sorting system currently in place and the ability for bycatch to be returned to the sea.</p> <p>However, it is not clear what the survival rate is of bycatch once returned to sea. Therefore PIRSA should also consider/investigate whether there is any possibility that further injury or impact on survival of bycatch may occur when being processed through this system.</p> <p>As such, DEWHA recommend PIRSA investigate further the possible impacts of the hoppers, crab bags and conveyer system (that is, the catch sorting system) on the bycatch and as a priority, implement appropriate measures to determine the survival rate of bycatch, including applying appropriate refinements to the mitigation technology (see Recommendation 8 a and b).</p> <p>DEWHA also acknowledge that PIRSA are currently conducting data analysis on the survival of bycatch species, looking at the effects of fishing on non-target species in the SGPF (Currie, et al. 2009) and that this is to be followed by a semi-quantitative risk assessment.</p> <p>However, as this concern remains ongoing due to the rate of bycatch survival not as yet known, DEWHA encourages PIRSA to finalise and implement the risk assessment processes for each fishery, followed by implementation of appropriate mitigation</p>

	<p>survival rate of bycatch once returned to sea and investigate whether the hopper, crab bag and conveyer system possibly cause further impact to bycatch before returning to the sea.</p> <p>DEWHA notes that PIRSA is shortly intending on conducting the ecological risk assessment process (ERA) in the SGPF. DEWHA also notes that the risk assessment process has not yet commenced in the GSVPF or WCPF.</p> <p>It is expected that further improved mitigation methods will be implemented following the risk assessments, in a timely manner.</p>	<p>improvements and measures, to assist in increasing the survivability of bycatch species in all of the fisheries. DEWHA encourage PIRSA to also ensure bycatch and byproduct information is incorporated in the logbooks on a regular basis in all three fisheries.</p> <p>DEWHA consider this recommendation to be ongoing. See Recommendation 8, Table 4.</p>
<p>11. By December 2008, PIRSA to specify bycatch indicator species for the Gulf St Vincent Prawn Fishery and the West Coast Prawn Fishery to be used to monitor the impact of the fisheries of bycatch species and/or species groups.</p>	<p>As DFWA indicates in their Submission, this recommendation will not be pursued as a modified approach to bycatch monitoring has been developed upon previous agreement with DEWHA.</p> <p>Also noted, is that commercial logbooks have been modified to now include byproduct data for the GSVPF and WCPF.</p>	<p>This Recommendation has been discontinued, as outlined in the progress column.</p>

	<p>During 2005, SARDI completed a report reviewing independent bycatch information collected over a number of years in the Spencer Gulf Fishery, with the outcome indicating that establishing statistically meaningful performance measures was likely to be an unattainable goal for any of the three SA Prawn Fisheries. Due to this PIRSA developed a new strategy to address critical issues for the assessment of the bycatch and byproduct species for the three prawn fisheries.</p> <p>PIRSA previously advised DEWHA previously that the SGPF conducted a bycatch survey in February 2007, intended to underpin a semi-quantitative risk assessment, assisting to identify levels of risk for individual species, including the development of management responses and mitigations strategies for the high risk species. PIRSA's intention was for this to replace the long term trend monitoring for abundance in the SGPF.</p> <p>PIRSA confirmed that qualitative risk assessments would be</p>	
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	<p>conducted for the GSVPF and WCPF (see Recommendation 9) and necessary management responses and strategies would be incorporated for high risk components of the fishery.</p> <p>For these reasons, it was previously agreed by PIRSA and DEWHA that Recommendations 8 and 11 of the current assessment would be discontinued.</p>	
<p>12. By December 2005, PIRSA to introduce mandatory structured reporting of all interactions between the Spencer Gulf Prawn Fishery, Gulf St Vincent Prawn Fishery and the West Coast Prawn Fishery and endangered, threatened or protected species.</p> <p>To complement such a reporting system, PIRSA to also ensure that an education program for fishers is developed and implemented to promote the importance of protected species protection and accurate incident reporting.</p>	<p>Commercial fishers are required to report all protected species interactions, to PIRSA and DEWHA.</p> <p>In 2007, PIRSA implemented the requirement for all commercial fishers in SA to complete a separate logbook recording all wildlife interactions. This data is then collated, analysed and reported in a data summary, by SARDI.</p> <p>‘Interactions’ includes collision, capture (hooked, netted, entangled), and those landed on board a vessel.</p> <p>PIRSA has also distributed a</p>	<p>DEWHA consider this recommendation has been partially met.</p> <p>DEWHA commend PIRSA on the implementation of the separate wildlife interaction logbooks for the fisheries and distribution of the species identification books. DEWHA expect PIRSA will ensure this data is reported and collected on a regular basis for continued and regular data collation, analysis and reporting by SARDI.</p> <p>DEWHA considers that as this is a relatively new requirement of the fisheries concerned, it is important that an appropriate education programme is also implemented, as was recommended in Recommendation 12 of the previous assessment.</p> <p>With the focus now on progressing towards an ecosystem based approach to fishery management, DEWHA strongly encourage PIRSA to consider additional ways to ensure fishers receive further and continued education in regard to improved species identification and handling.</p>

	<p>species identification guide to all fishers to assist them in the recording process.</p>	<p>To complement the new log books and distribution of identification guides, DEWHA recommend PIRSA investigate possible approaches to conducting regular education sessions for fishers in each fishery, to ensure there is an ongoing education program for the three fisheries.</p> <p>This is intended to complement the new logbook and species identification guides currently being distributed and will ensure ongoing protected species protection and accurate reporting within all of the fisheries.</p> <p>See Recommendation 9, Table 4.</p>
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Table 3: The Department of the Environment, Water, Heritage and the Arts (DEWHA) assessment of the South Australian (SA) Prawn Trawl Fishery against the requirements of the EPBC Act related to decisions made under Parts 13 and 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 13A. A complete version of the EPBC Act can be found on the DEWHA website.

Part 13

Division 1 Listed threatened species Section 208A Minister may accredit plans or regimes	DEWHA assessment of the SA Prawn Trawl Fishery
<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> <ol style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <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>(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>The SA Prawn Trawl Fishery will be managed under <i>Fisheries Management (Prawn Fisheries) Regulations 2006</i> and the <i>Fisheries Management (General) Regulations 2007</i>, in force under the <i>Fisheries Management Act 2007</i> (South Australia).</p> <p>The Management regime for the SA Prawn Trawl Fishery was accredited in November 2007. The management arrangements for the SA Prawn Trawl Fishery have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that within the SA Prawn Trawl Fishery there are minimal interactions with listed threatened species. Therefore, DEWHA considers the current operation of the SA Prawn Trawl Fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species. As such, the SA Prawn Trawl Fishery will be reaccredited under Part 13 of the EPBC Act.</p>

Division 2 Migratory species Section 222A Minister may accredit plans or regimes	DEWHA assessment of the SA Prawn Trawl Fishery
<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"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <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 SA Prawn Trawl Fishery will be managed under <i>Fisheries Management (Prawn Fisheries) Regulations 2006</i> and the <i>Fisheries Management (General) Regulations 2007</i>, in force under the <i>Fisheries Management Act 2007</i> (South Australia).</p> <p>The Management regime for the SA Prawn Trawl Fishery was accredited in November 2007. The management arrangements for the SA Prawn Trawl Fishery have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that within the SA Prawn Trawl Fishery there are minimal interactions with migratory species. Therefore, DEWHA considers the current operation of the SA Prawn Trawl Fishery is not likely to adversely affect the survival or recovery in nature of any migratory species. As such, the SA Prawn Trawl Fishery will be reaccredited under Part 13 of the EPBC Act</p>

Division 3 Whales and other cetaceans Section 245 Minister may accredit plans or regimes	DEWHA assessment of the SA Prawn Trawl Fishery
<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"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <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 SA Prawn Trawl Fishery will be managed under <i>Fisheries Management (Prawn Fisheries) Regulations 2006</i> and the <i>Fisheries Management (General) Regulations 2007</i>, in force under the <i>Fisheries Management Act 2007</i> (South Australia).</p> <p>The Management regime for the SA Prawn Trawl Fishery was accredited in November 2007. The management arrangements for the SA Prawn Trawl Fishery have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that within the SA Prawn Trawl Fishery there are minimal interactions with Whales and other Cetaceans. Therefore, DEWHA considers the current operation of the SA Prawn Trawl Fishery is not likely to adversely affect the survival or recovery in nature of any Whales and other Cetaceans. As such, the SA Prawn Trawl Fishery will be reaccredited under Part 13 of the EPBC Act.</p>
Division 4 Listed marine species Section 265 Minister may accredit plans or regimes	DEWHA assessment of the SA Prawn Trawl Fishery
<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"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing 	<p>The SA Prawn Trawl Fishery will be managed under <i>Fisheries Management (Prawn Fisheries) Regulations 2006</i> and the <i>Fisheries Management (General) Regulations 2007</i>, in force under the <i>Fisheries Management Act 2007</i> (South Australia).</p>

<p>Territory;</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 Management regime for the SA Prawn Trawl Fishery was accredited in November 2007. The management arrangements for the SA Prawn Trawl Fishery have not significantly changed since this accreditation was granted. As such, the fishery will be recredited under Part 13.</p> <p>Currently, evidence suggests that within the SA Prawn Trawl Fishery there are minimal interactions with listed marine species. Therefore, DEWHA considers the current operation of the SA Prawn Trawl Fishery is not likely to adversely affect the survival or recovery in nature of any listed marine species. As such, the SA Prawn Trawl Fishery will be recredited under Part 13 of the EPBC Act.</p>
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Part 13A

Section 303DC Minister may amend list	DEWHA assessment of the SA Prawn Trawl Fishery
<p>(1) Minister may, by instrument in published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <p>(a) including items in the list;</p> <p>(b) deleting items from the list; or</p> <p>(c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or</p> <p>(d) varying of revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or</p> <p>(e) correcting an inaccuracy or updating the name of a species.</p>	

<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>DEWHA considers that the consultation requirements have been met. The public comment period on the PIRSA submission sought comment on the annual submission for the SA Prawn Trawl Fishery and provided sufficient opportunity for consultation with other persons and organisations.</p> <p>A letter to the Hon Paul Caica MP advises him of the intention to declare the fishery exempt from the export provisions of the EPBC Act.</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 SA Prawn Trawl Fishery made under sections 303DC has been gazetted and made available on the DEWHA website.</p>

Section 303FR Public consultation	DEWHA assessment of the SA Prawn 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"> (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>Under the EPBC Act, a decision to amend the LENS does not require a public consultation period. However, a public notice, which set out the proposal to grant export approval to the SA Prawn Trawl Fishery and included the submission for the SA Prawn Trawl Fishery was released for public comment which closed on 16 October 2009. One submission was received.</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.	
(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.	One public comment about the proposal was received.

Part 16

Section 391 Minister must consider precautionary principle in making decisions	DEWHA assessment of the SA Prawn Trawl Fishery
(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.	The precautionary principle has been considered when making a decision to include specimens on the LENS.
(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.	

Objects of Part 13A

- (a) to ensure that Australia complies with its obligations under CITES and the Biodiversity Convention;
- (b) to protect wildlife that may be adversely affected by trade;
- (c) to promote the conservation of biodiversity in Australia and other countries;
- (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way;
- (e) to promote the humane treatment of wildlife;
- (f) to ensure ethical conduct during any research associated with the utilisation of wildlife; and
- (h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.

Final recommendations to Primary Industries and Resources South Australia (PIRSA) for the SA Prawn Trawl Fishery

The material submitted by PIRSA indicates that the SA Prawn Trawl Fishery operates in accordance with the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries*, 2nd edition. DEWHA considers that the fishery is well managed and unlikely to have an unacceptable or unsustainable impact on the environment in the short to mid term. Overall, DEWHA recognises that limited entry; seasonal and area closures; daylight and moon closures; minimum trawl depth; gear and vessel restrictions; limits on total prawn catch prior to spawning season and size limit and prohibition on retention of berried females for slipper lobster, are conservative and suggest that the fishery is being managed in an ecologically sustainable way.

In making its assessment, DEWHA considers that the range of management measures are sufficient to ensure that the fishery is conducted in a manner that does not lead to over-fishing and that stocks are not currently overfished. Taking into account the limited entry; seasonal and area closures; daylight and moon closures; minimum trawl depth; gear and vessel restrictions; limits on total prawn catch prior to spawning season and size limit and prohibition on retention of berried females for slipper lobster, DEWHA considers that fishing operations are managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

DEWHA is satisfied that the fishery will not be detrimental to the survival or conservation status of the taxon to which it relates in the short term. Similarly, it is not likely to threaten any relevant ecosystem in the short term. To contain and minimise the risks in the longer term the recommendations listed below have been made. DEWHA believes that product taken in the fishery should be exempt from the export controls of Part 13A of the EPBC Act, with that exemption to be reviewed in 5 years.

DEWHA considers that the operation of the fishery does not, or is not likely to, adversely affect the survival in nature of a listed threatened species or population of that species, or the conservation status of a listed migratory species, cetacean or listed marine species or a population of any of those species. DEWHA also considers that under the management plan operators are required to take all reasonable steps to avoid the killing or injuring of protected species, and the level of interaction under current fishing operations is low.

For these reasons, the management arrangements were accredited under Part 13 of the EPBC Act in November 2007. Since there have been no significant changes to the management arrangements since the initial assessment of the fishery, DEWHA considers that the existing Part 13 accreditation remains valid.

Recommendations are provided below with a brief explanation of the related issue/intent. Unless a specific time frame is provided in the recommendation each recommendation must be addressed within the life of the declaration (5 years).

Table 4: South Australian (SA) Prawn Trawl Fishery Assessment– Summary of Issues and Recommendations October 2009

	Issue	Recommendation
1	<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. In order to ensure that these decisions remain valid and export approval continues uninterrupted, the Department of Environment, Water, Heritage and the Arts (DEWHA) 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 by-product, bycatch, protected species or the ecosystem.</p> <p>Key components of the management regime include, but are not limited to, the <i>Fisheries Management Act (2007)</i>, the <i>Fisheries Management (General) Regulations 2007</i>, and the <i>Fisheries Management (Prawn Fisheries) Regulations 2006</i>.</p>	<p>Recommendation 1:</p> <p>Operation of the fishery will be carried out in accordance with the management arrangements for the SA Prawn Trawl Fishery in force under the <i>SA Fisheries Management Act 2007</i>.</p> <p>Recommendation 2:</p> <p>Department of Primary Industries and Resources, South Australia (PIRSA) to inform the DEWHA of any intended amendments to the SA Prawn Trawl Fishery’s management arrangements that may affect the assessment of the fishery against the criteria on which EPBC Act decisions are based.</p> <p>(generic recommendations)</p>
2	<p><u>Annual Reporting</u></p> <p>Reports must be produced and presented to DEWHA 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 are to be provided prior to the anniversary of the export declaration.</p> <p>Annual reports should follow Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> (the Guidelines) and include a</p>	<p>Recommendation 3:</p> <p>PIRSA to produce and present reports to DEWHA annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p> <p>(generic recommendation)</p>

	<p>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 progress in implementing DEWHA conditions and recommendations.</p> <p>Electronic copies of the Guidelines are available from the DEWHA website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html</p>	
3	<p><u>Management arrangements:</u></p> <p>DEWHA is aware that two of the three prawn fisheries have formal management plans – being Gulf of Saint Vincent Prawn Fishery (GSVPF) and the Spencer Gulf Prawn Fishery (SGPF). DEWHA also acknowledges that these operate for five years and are subject to annual review and amendments as considered necessary by the Fisheries Council, Director of Fisheries or the Minister for Agriculture, Food and Fisheries. As such, DEWHA notes that these plans are due for formal review and update in 2011 as stated in the Submission.</p> <p>The smaller West Coast Prawn Fishery (WCPF) fishery does not currently have a formal management plan, and is currently managed through less formal arrangement within the SGPF management plan.</p> <p>DEWHA encourages the SA Prawn Trawl Fishery to progress towards an ecosystem based approach and as such, each of the fisheries should ideally have formal management plans to ensure a responsible and ecologically sustainable approach to the management of the fishery can be maintained. This is particularly important in regard to the development of a harvest strategy for each fishery.</p> <p>DEWHA acknowledges that PIRSA is currently in the process of developing more formal management arrangements for the WCPF. PIRSA states in their submission that this is intended to be implemented through a policy statement and finalised, during</p>	<p>Recommendation 4:</p> <p>PIRSA to:</p> <p>a) By the end of 2010, develop and implement a management policy and harvest strategy for the WCPF, incorporating a regular review period.</p> <p>b) Review and implement performance indicators and performance measures used in the assessment and management of Western King prawns stock status in the WCPF, for incorporation in future harvest strategies;</p> <p>c) As appropriate, develop harvest strategies for bycatch taken in the fishery.</p>

<p>2010. DEWHA urges PIRSA to, where appropriate, ensure the WCPF management arrangements are brought up to the standard currently in place for the GSVPF and SGPF with the view of implementing a formal management plan for WCPF.</p> <p>DEWHA also encourage PIRSA to ensure a review period is implemented into the new management arrangements for the WCPF, such as the five yearly review implemented for the SGPF and GSVPF management plans.</p> <p><u>Performance Indicators, Performance measures and decision rules:</u></p> <p>DEWHA acknowledges the progress to date through the development of new performance indicators, measures and decision rules for the revised management plans for the SGPF and the GSVPF.</p> <p>However, DEWHA also notes that there have been prolonged periods of stock decline in the WCPF over recent years with some signs of stock recovery indicated in the recent fishing season. As stated in the June 2009 <i>Fishery Status Report</i>, there is some evidence that stocks are beginning to recover. PIRSA has stated that the decline has also been due to varying environmental factors.</p> <p>DEWHA consider establishment of appropriate performance indicators, performance measures and decision rules within each fishery, to be a priority requirement. DEWHA encourage PIRSA to ensure they are brought up to a standard which will enable the SA Prawn Trawl Fishery to progress to an ecosystem based approach to management in the future. PIRSA to ensure these revised measures are appropriately precautionary and sufficient to detect significant changes in stock status.</p> <p>Due to the pending implementation of performance indicators, measures and decision rules for WCPF (as part of the development of more formal management arrangements expected in 2010) and, pending the formal review and amendments where appropriate,</p>	
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<p>of management plans for the SGPF and GSVPF, this recommendation will continue until the management plans and/or policies are reviewed. As stated in the Submission, PIRSA expect this to occur in 2011.</p> <p><u>Harvest Strategies:</u></p> <p>DEWHA acknowledges the implementation of revised management plans and harvest strategies for the GSVPF and SGPF. However, it is noted in the submission that there is currently no formal management plan or harvest strategy for the WCPF.</p> <p>DEWHA acknowledges that each of the SA Prawn fisheries management is aiming to reduce impacts on non-target species (and the ecosystem) and acknowledges the implementation of revised management plans, incorporating harvest strategies for the GSVPF and SGPF.</p> <p>DEWHA also notes the studies undertaken determining effects of fishing on non-target species in the SGPF, which PIRSA intends to apply to a semi-quantitative risk assessment for bycatch in the SGPF.</p> <p>PIRSA has stated that a bycatch sampling program is underway for the GSVPF, with the intention of producing a similar risk assessment process as mentioned above for the SGPF. Current regulations included in the harvest strategies and management plans include: protection of egg-bearing female slipper lobsters, size limits; and a periodic squid stock assessment report.</p> <p>DEWHA therefore expects the harvest strategy to be incorporated into the new formal management policy for the WCPF. The harvest strategy should, as appropriate, clearly articulate performance indicators, performance measures and relevant specific management arrangements to be applied to byproduct species permitted in the fisheries. Through this recommendation, DEWHA expects that PIRSA will, as appropriate,</p>	
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	incorporate harvest strategies, revised performance indicators, measures and decision rules into all of the fishery management plans and arrangements, within the term of this export status.	
4	<p><u>Incorporation of Compliance Strategy into WCPF Management Plan:</u></p> <p>DEWHA notes that the compliance risk assessment is conducted every 2-3 years. As the aim of the compliance operational plan is to address compliance and enforcement risk identified in the compliance risk assessment of the prawn fisheries, DEWHA expects PIRSA to review the Compliance Operational Plan in line with the risk assessment review every 2-3 years. The Compliance Operational Plan is to then be updated accordingly.</p> <p>The Submission states that this has been incorporated into the mgt plans. However, as WCPF does not have a mgt plan, this rec has been raised in order to ensure a compliance strategy is included in the WCPF new mgt arrangements being finalised in 2010.</p> <p>Despite the WCPF being smaller than the other two fisheries, DEWHA consider it still important as a commercial fishery (which has been operating for a number of years to date) to have more formal management arrangements in place. A compliance strategy is considered an important part of the management arrangements.</p> <p>Therefore DEWHA recommends that PIRSA ensure the Compliance Operational Plan is incorporated into the more formal management arrangements for the WCPF, which is expected to be completed via a policy statement during 2010 .</p>	<p>Recommendation 5:</p> <p>PIRSA to ensure a compliance strategy is incorporated into the WCPF management policy.</p>

5	<p><u>Catch validation:</u></p> <p>As stated in the previous assessment report (2004), the recording of byproduct and bycatch information should be incorporated in the log books on a daily basis and this was something being considered by PIRSA.</p> <p>DEWHA considers validation of prawn sizes and catch assists in providing valuable data for the monitoring of prawn stocks across all of the fisheries in the SA Prawn Trawl, particularly in relation to prawn recruitment and productivity of the fishing grounds. As stated in the Guidelines (2nd Edition) and as highlighted in the previous assessment:</p> <p>Principle 1 - <i>‘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’.</i></p> <p>Objective 1 – <i>‘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’.</i></p> <p>DEWHA notes the stock declines over the past years and the beginnings of recovery, as stated in the 2009 status report. As this is still of some concern due to early stages of recovery and due to the <i>SA Fisheries Resources, Current Status and Recent Trends, 2006</i> stating that the fisheries are ‘fully fished, overfished and environmentally limited’, DEWHA considers it a precautionary measure to ensure this recommendation is included for the next term of export status.</p> <p>DEWHA acknowledges that the SGPF has been collecting information on size composition through their daily logbooks. DEWHA commend DFWA on their progress to date with the modification of daily commercial logbooks for the GSVPF and WCPF.</p>	<p>Recommendation 6:</p> <p>PIRSA to continue to ensure prawn size and catch validation is being regularly reported through the survey process.</p>
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6	<p><u>Bycatch management:</u></p> <p>DEWHA acknowledges the progress to date in regard to the development of research studies and proposed strategies for each of the fisheries. However, DEWHA consider there has been minimal progress achieved to date in regard to the implementation of improved management measures and responses due to pending risk assessment processes.</p> <p>DEWHA encourage PIRSA to focus on raising the standard of bycatch data collection for GSVPF and WCPF, in line with the level of that currently in place for SGPF. As was stated in the 2004 assessment, this will assist in ensuring that the three fisheries will have increased understanding and mitigation responses to impacts on bycatch species in the future. This is particularly important with the view to progressing towards an</p>	<p>Recommendation 7:</p> <p>PIRSA to ensure:</p> <ul style="list-style-type: none"> a) Completion of the risk assessment for bycatch, for all of three SA Prawn Trawl Fisheries; b) That there is an appropriate level of fishery independent fishery data recording across the three SA Prawn Trawl Fisheries; c) Completion of the bycatch data collection and analysis process for all of the fisheries;

	<p>ecosystem based management approach for the SA Prawn Trawl Fisheries.</p> <p>Based on this and given that progress on this recommendation has been largely ongoing since the 2004 assessment, DEWHA expect to see firm management decisions and appropriate mitigation responses in place in each of the three fisheries within the new exemption period. This will allow for the completion of the management policy for the WCPF, the data collection/analysis and risk assessment processes in all of the fisheries.</p>	<p>d) Implementation of appropriate management measures and mitigation responses for high risk species identified; and</p> <p>e) As appropriate, management plans and policies are updated in regard to bycatch management arrangements, for all fisheries, as new information becomes available.</p>
7	<p><u>Bycatch Reduction:</u></p> <p>DEWHA commends the implementation of the catch sorting system currently in place and the ability for bycatch to be returned to the sea.</p> <p>However, it is not clear what the survival rate is of bycatch once returned to sea. Therefore PIRSA should also consider/investigate whether there is any possibility that further injury or impact on survival of bycatch may occur when being processed through this system.</p> <p>As such, DEWHA recommend PIRSA investigate further the possible impacts of the hoppers, crab bags and conveyer system (that is, the catch sorting system) on the bycatch and as a priority, implement appropriate measures to determine the survival rate of bycatch, including applying appropriate refinements to the mitigation technology (see 8 a and b).</p> <p>DEWHA also acknowledge that PIRSA are currently conducting data analysis on the survival of bycatch species, looking at the effects of fishing on non-target species in the SGPF (Currie, et al. 2009) and that this is to be followed by a semi-quantitative risk assessment.</p>	<p>Recommendation 8:</p> <p>PIRSA to continue to pursue reduction in the amount of bycatch taken in the SGPF, GSVP and WCPF through:</p> <p>a) Continued refinement and timely implementation, of appropriate bycatch mitigation technology; and</p> <p>b) Further investigation/refinement of methods for evaluating and increasing the survivability of bycatch species, where appropriate.</p>

	<p>However, as this concern remains ongoing due to the rate of bycatch survival not as yet known, DEWHA encourages PIRSA to finalise and implement the risk assessment processes for each fishery, followed by implementation of appropriate mitigation improvements and measures, to assist in increasing the survivability of bycatch species in all of the fisheries.</p> <p>DEWHA encourage PIRSA to also ensure bycatch and byproduct information is incorporated in the logbooks on a regular basis in all three fisheries.</p>	
8	<p><u>Protected species protection:</u></p> <p>DEWHA commend PIRSA on the implementation of the separate wildlife interaction logbooks for the fisheries and distribution of the species identification books. DEWHA expect PIRSA will ensure this data is reported and collected on a regular basis for continued and regular data collation, analysis and reporting by SARDI.</p> <p>DEWHA considers that as this is a relatively new requirement of the fisheries concerned, it is important that an appropriate education programme is also implemented, as was recommended in Recommendation 12 of the previous assessment.</p> <p>With the focus now on progressing towards an ecosystem based approach to fishery management, DEWHA strongly encourage PIRSA to consider additional ways to ensure fishers receive further and continued education in regard to improved species identification and handling. As an example such programmes for other jurisdictions in the past have included providing a protected species identification and handling education session prior to the start of each fishing season.</p> <p>This is intended to complement the new logbook and species identification guides currently being distributed and will ensure ongoing protected species protection and accurate reporting within all of the fisheries.</p>	<p>Recommendation 9:</p> <p>PIRSA to continue further regular/ongoing education programmes, which will complement the new logbook and species identification book, so as to ensure future protected species protection and accurate reporting.</p>

References

Currie, DR, Dixon, CD, Roberts SD, Hooper, GE, Sorokin, SJ and T. Ward (2009). *Fishery independent by-catch survey to inform risk assessment of the Spencer Gulf Prawn Fishery*. SARDI Publication No. F2009/000369-1. SARDI Research Report Series No. 390

South Australian Fisheries Resources, Current Status and Recent Trends, 2006
(www.pir.sa.gov.au)

Acronyms

CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DEWHA	Department of Environment, Water, Heritage and the Arts
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ERA	Ecological Risk Assessment
FRDC	Fisheries Research and Development Corporation
GSVPF	Gulf St Vincent Prawn Fishery
PIRSA	Department of Primary Industries and Resources South Australia
SA	South Australia
SARDI	South Australian Research and Development Institute
SGPF	Spencer Gulf Prawn Fishery
WCPF	West Coast Prawn Fishery