



**Australian Government**

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**Department of the Environment, Water, Heritage and the Arts**

Assessment of the  
**Western Australia Shark Bay Prawn Fishery**

**DECEMBER, 2007**

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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 – 2<sup>nd</sup> 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 Western Australia (WA) Shark Bay Prawn Managed Fishery (SBPMF)**

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| <p><b>Publicly available information relevant to the fishery</b></p> | <ul style="list-style-type: none"> <li>• WA <i>Fish Resources Management Act 1994</i> (FRM Act)</li> <li>• WA <i>Fish Resources Management Regulations 1995</i> (FRM Regulations)</li> <li>• WA <i>Shark Bay Prawn Management Plan 1993</i></li> <li>• <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)</li> <li>• Department of Fisheries WA (DFWA) Application to Environment Australia for the SBPMF, April 2002</li> <li>• Department of Environment and Heritage Assessment Report 2002</li> <li>• DFWA State of the Fisheries Report 2003/04</li> <li>• DFWA State of the Fisheries Report 2004/05</li> <li>• DFWA State of the Fisheries Report 2005/06.</li> </ul> |
| <p><b>Area</b></p>   | <p>Shark Bay in WA. The boundaries are the waters of the Indian Ocean between latitudes 23°34' S and 26°30' S and adjacent to the WA coastline on the landward side of the 200 m isobath (see <i>Shark Bay Prawn Management Plan 1993</i> for detailed coordinates).</p>  |
| <p><b>Fishery status</b></p>   | <p>Fully fished.</p> <p>The main performance measures for the SBPMF relate to maintenance of breeding stocks for each of the major target prawn species. In 2006, the breeding stock indicators for tiger prawns and coral prawns were met. The king prawns were slightly below the catch range but this was due to reduced effort, targeting of larger size prawns and a small shift of effort away from king prawns.</p>  |
| <p><b>Target Species</b></p>   | <p>Western king prawns (<i>Penaeus latisulcatus</i>) – approximately 70% of catch.</p> <p>Brown tiger prawns (<i>P. esculentus</i>) – approximately 30% of catch.</p> <p>Information on the biology of these species can be found in the 2002 assessment of the SBPMF located on the Department of the Environment, Water, Heritage and the Arts' (DEWHA) website.</p>  |
| <p><b>Byproduct Species</b></p>                                      | <p>Predominantly endeavour and coral prawns. Other species retained include squid, cuttlefish, crabs, mulloway and small numbers of other fish and shells. Retention of sharks is no longer permitted.</p> <p>Shark Bay Prawn Managed Fishery Licence holders also hold Class B Shark Bay Scallop Managed Fishery Licences which entitle them to retain scallops caught in their prawn trawl gear. A scallop catch sharing arrangement commenced in 2007 and will continue in 2008 under which Shark Bay Prawn Managed fishery/Class B Shark Bay Scallop Managed Fishery licensees are being allocated approximately 28% of the estimated sustainable scallop catch.</p>                                  |
| <p><b>Gear</b></p>   | <p>Following trials over the last two fishing seasons, the use of quad gear, unitization of head rope length, and removal of the 375 boat unit rule</p>   |

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|   | are to be formalised by a management plan amendment in 2008.  |
| <b>Season</b>                           | <p>Opening and closing dates vary each year depending on the pre-season predictions of recruitment dynamics, moon phase and environmental conditions.</p> <p>In 2005, the Shark Bay prawn fishing season formally commenced on 8 March and closed on 13 October (a total of 169 nights). Fishing patterns during the season involved flexible fishing arrangements and voluntary industry closures based on assessment of both king and tiger prawn size through fishery-independent surveys.</p>   |
| <b>Commercial harvest 2006</b>          | <p>The total landings of major penaeids for the 2006 season were 1 559 t, comprising 1 091 t of king prawns, 467 t of tiger prawns and less than 1 t of endeavour prawns. In addition there were also 115 t of minor penaeids (coral prawns) landed. The total landings were within the target catch range (1 501–2 330 t). Tiger prawn landings were also within the target range for that species (400–700 t). King prawn landings were slightly below the acceptable catch range (1,100–1,600 tonnes). For the 2006 season, the king prawn effort levels affected catches as the fleet targeted larger king prawns for economic value.</p> <p>The 2006 season had a similar total catch of major penaeids to that of the previous three seasons. In 2005 the total catch was 1 628 t, in 2004 1 748 t, and 2003 had 1 632 t.</p> <p>Scallop landings by the prawn fleet in 2006 totalled 432 t whole weight.</p> |
| <b>Value of commercial harvest 2005</b> | <p>Estimated annual value (to fishers) for year 2005 was \$22.7 million.</p> <p>Ex-vessel prices for prawns vary depending on the type of product and the market forces operating at any one time. Generally, the price of prawns was similar to those in 2004 and 2003 and average ex-boat prices were as follows:</p> <p>King prawns \$12.60/kg<br/> Tiger prawns \$15.70/kg<br/> Endeavour prawns \$6.70/kg<br/> Coral prawns \$4.00/kg</p>  |
| <b>Take by other sectors</b>            | No significant take of target species by other sectors.   |
| <b>Commercial licences issued</b>       | <p>27 boats licensed to operate in the SBPMF since 1990.</p> <p>Associated with the move to quad gear, and to further improve the ongoing economic viability of the SBPMF in 2007 only 18 of the 27 licences for the fishery were active. Industry is currently investigating re-structure options to bring about a permanent reduction in the size of the fishing fleet.</p>   |
| <b>Management arrangements</b>          | The SBPMF is managed under the WA <i>Shark Bay Prawn Management Plan 1993</i> , the FRM Act and the FRM Regulations. The use of quad gear, unitization of head rope length, and removal of the 375 boat unit rule are to be formalised by a management plan amendment during 2008. To improve the ongoing economic viability of the SBPMF in  |

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|   | <p>2007 only 18 of the 27 licences were active. The total headrope length being operated has been reduced by 10% under an industry agreement. Industry is currently investigating restructure options to bring about a permanent reduction in the size of the fishing fleet.</p> <p>Management of the SBPMF is based on input controls which include limited entry, seasonal and area openings and closures, moon closures and gear controls.</p>   |
| <b>Export</b>                             | Major markets for tiger prawns are Japan and Taiwan. Australia, Europe, United States of America and Taiwan are the major markets for western king prawns.  |
| <b>Bycatch</b>                            | <p>Various.</p> <p>All vessels are required by way of a condition on the fishery licence to fish with a bycatch reduction device (BRDs) and a secondary BRD or fish escapement device (FED) in each net.</p>  |
| <b>Interaction with Protected Species</b> | <p>Although protected species, including whales, dolphins, dugongs, turtles and sea snakes, are particularly abundant in Shark Bay generally, only sea snakes are seen regularly in the trawl catches in certain areas, and these are mostly returned to the sea alive. The full implementation of BRDs in the fishery since 2002 has generally eliminated the occasional capture of turtles in trawl nets. However, there is a short period of time in a specific area that is BRD-exempt due to excessive weed. This area generally has low occurrence of turtles, and the short trawl duration (maximum 60 minutes) required in Shark Bay to accommodate the high prawn catch rates and the clogging effects of dead wire weed means that any turtles caught can be returned to the sea alive.</p> <p>One performance measure for the fishery is for 90% of turtles from non-BRD nets to be returned alive. For the 2005 season, 2 turtles (1 loggerhead and 1 unidentified) were recorded as caught in nets (either during the BRD-exempt period or caught on the BRD). Both were recorded as being released alive. The Research logbooks completed by licence holders within the fishery include provisions to report any interactions with protected species.</p> <p>Reporting requirements are included as a standing item on the agenda for annual pre-season briefings. Fishers' are also given a Protected Marine Species Identification Guide that contains:</p> <ul style="list-style-type: none"> <li>• pictures and a brief description of relevant protected species; and</li> <li>• specific details to include in logbooks.</li> </ul> |
| <b>Ecosystem Impacts</b>                  | A recent Fisheries Research and Development Corporation (FRDC) project compared the faunal composition between trawled and untrawled areas within Shark Bay. Faunal composition was similar in trawled and untrawled areas in general and therefore it is sufficient that the principal form of monitoring (and indeed management) of species diversity matters in the Shark Bay fisheries is the extent of the trawled areas. Furthermore, preliminary results also suggest that the percentage of the area trawled should not exceed that observed in recent years  |

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|  | <p>(approximately 40% of area of the fishery open to trawling).</p> <p>The permanent area closures and other temporal closures that are applied in the SBPMF provide protection to the key life history stages of the majority of the bycatch species caught. The project identified that the 10-20 most common species of fish and invertebrates could be used as indicator species (for trends in abundance and diversity measures) in Shark Bay. These are all relatively short-lived, abundant and widespread in both trawled and untrawled areas.</p>  |
| <p><b>Impacts on World Heritage property</b></p> | <p>The previous assessment considered the possible impacts on the World Heritage values of the Shark Bay World Heritage Area. The Shark Bay region was declared a World Heritage Area in 1991 and the SBPMF operates within the declared area. Fishing for prawns in this area has occurred since 1962, well before the World Heritage declaration.</p> <p>Shark Bay's listed World Heritage values are located primarily in areas that are protected from or unsuited to trawling. On this basis DEWHA considers that an action taken by an individual fisher, acting in accordance with the <i>WA Shark Bay Prawn Management Plan 1993</i> would not be expected to have a significant impact on a matter protected under the EPBC Act.</p> |

**Table 2: Progress in implementation of recommendations made in initial assessment of the SBPMF**

| Recommendation   | Progress  | Recommended Action  |
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| <p>1. Opportunity should be provided to conservation, community, recreational fishing and world heritage area management interests to participate in the processes of the main advisory body to the WA Fisheries Minister for this fishery. DFWA should also ensure that any relevant indigenous interests are considered through appropriate consultative mechanisms.</p> | <p>DFWA advised that the Joint Trawl Management Advisory Committee (MAC) was established in January 2002 to provide advice to the Minister on matters relating to the Shark Bay Prawn, Shark Bay Scallop and Exmouth Gulf Prawn Managed Fisheries.</p> <p>Commercial, conservation and recreational interests are included in the consultative process through membership of the MAC. The committee meets 1 to 2 times per year.</p> <p>Currently, the structure of the committee is as follows:</p> <ul style="list-style-type: none"> <li>• Independent chair</li> <li>• 8 members with expertise in the commercial prawn and scallop fishing industry</li> <li>• 1 member with recreational fishing sector expertise</li> <li>• 1 member with community sector expertise</li> <li>• 1 member with conservation sector expertise</li> <li>• Chief Executive Officer (ex officio) or nominee</li> </ul> <p>The Committee does not include a specific position for a World Heritage area representative or a member of the Indigenous sector. However, to ensure that World Heritage and Indigenous interests are included in the MAC consultation process, when relevant or deemed appropriate they are consulted. DFWA is also represented at World Heritage scientific and community advisory committee meetings, providing the opportunity for World Heritage interests to raise any issues of concern with DFWA.</p> | <p>Ongoing. DEWHA encourages DFWA to continue to provide opportunity for conservation, Indigenous, recreational and community groups and world heritage area management interests to participate in the processes of the Joint Trawl MAC for the SBPMF.</p> |

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| <p>2. The ESD report, including all performance measures, responses and information requirements, should be formally incorporated into the management regime and decision making process within one year, with a clear timeframe for implementation.</p> | <p>DFWA reports against the performance measures for the SBPMF in the annual <i>State of the Fisheries Report</i>. DFWA liaises with Industry on an annual basis to determine the fishing arrangements and catch rate thresholds for the coming year. This regular review ensures management arrangements are conducive with maintaining resource sustainability.</p>   | <p>Met. DFWA have formally published the management objectives and performance measures for the fishery as part of its ESD report series on its website (<a href="http://www.fish.wa.gov.au/docs/esd/index.php?0605">http://www.fish.wa.gov.au/docs/esd/index.php?0605</a>).</p> |
| <p>3. DEWHA should be informed of any changes to the management plan or managerial commitments in the ESD report.</p>  | <p>There have been no substantive amendments to the legislated management plan for the SBPMF since its original assessment.</p> <p>However, a trial of quad gear has been underway for some time under a FRM Act exemption. This trial has been successful from both an industry and research (assessment of gear efficiency) perspective. The ongoing use of quad gear, and unitisation of headrope, is to be formalised by amendment of the management plan during the 2008 fishing season.</p> <p>In association with unitization of head rope, the 375 boat unit rule is to be formally abolished by a management plan amendment. Currently, a FRM Act exemption enables vessels greater than 375 boat units to operate within the SBPMF.</p> <p>BRDs, in the form of grids, have been in place within the SBPMF for some years. A secondary BRD in the form of a FED was made compulsory in 2005 in all nets towed, except try nets, the details of which are included in DFWA's 2002 submission.</p> <p>DFWA and industry are currently working together to</p> | <p>Ongoing (<b>Recommendation 2</b> Table 4).</p>  |

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|   | <p>undertake strategic management reviews of the Shark Bay Prawn and Shark Bay Scallop Managed Fisheries. The Steering Committee formed to undertake the review has released a draft report in the form of <i>Fisheries Management Paper 222</i> which can be downloaded from <a href="http://www.fish.wa.gov.au/docs/mp/">http://www.fish.wa.gov.au/docs/mp/</a>. It is anticipated that the review will be finalized in the coming months.</p>  |             |
| <p><b>4.</b> The ESD report should be amended to incorporate timeframes for all management responses to breaches of performance measures.</p> | <p>Over the last 3 years, the SBPMF has developed a real time management response program to ensure sustainability and also to enhance economic return to the SBPMF through maximising prawn sizes.</p> <p>DFWA undertakes an annual pre season abundance survey and, based on the outcomes of the survey, DFWA works with industry to set catch rate thresholds and fishing arrangements for the coming year within the context of the management objectives for the SBPMF. Based on real time information on catch and catch rates immediate action is taken to control operations in the SBPMF.</p> <p>The annual DFWA-industry meetings to set catch rate thresholds and fishing arrangements for the coming year provide opportunity to review and address management responses to breaches in performance measures.</p> <p>DFWA have advised that that breaches in a performance measure will be reported in the <i>State of the Fisheries Report</i>. If a breach materially affects the sustainability of the target species or negatively impacts on byproduct, bycatch, protected species or the ecosystem, the breach will be reported to the Minister for Fisheries within 3 months for subsequent management review and action</p> | <p>Met.</p> |

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|  | with timeframes for implementation.  |   |
| <p><b>5.</b> Permitted byproduct should be limited to species currently harvested, with a robust system developed to add or remove species as appropriate. Suitable catch triggers should be developed to ensure any change in targeting behaviour can be detected and addressed as it occurs. Management responses should be clarified, with timeframes for implementation, to address such changes, so that the management arrangements are able to minimise threats to byproduct species.</p> | <p>A draft Fisheries Management Paper titled “Managing the Take of Byproduct in Managed Fisheries in Western Australia” is working towards meeting this recommendation. It is proposed to manage the take of byproduct in managed fisheries by including a schedule within the management plan which specifies a list of byproduct species historically caught in the SBPMF and a corresponding number/catch limit. The Minister has given his in-principal support for this strategy to deal with the take of byproduct.</p> <p>DFWA’s Research Division is in the process of compiling the historical byproduct catch data for all of the trawl fisheries in order to produce schedules specific to each fishery.</p> <p>The initial results of the FRDC Biodiversity project (see Recommendation 7) have also provided an inventory of bycatch (including byproduct) species caught at fixed sites throughout Shark Bay and have provided information on the spatial distribution of byproduct species. The final report on this project will be submitted to FRDC in early 2008.</p> | <p>Ongoing. DEWHA encourages DFWA to continue to develop and implement strategies to manage byproduct in the SBPMF.</p>   |
| <p><b>6.</b> DFWA should participate in any cross-jurisdictional activities regarding relevant target and byproduct species, including squid.</p>  | <p>DFWA currently participates in various cross-jurisdictional activities in order to ensure sustainability of the State’s fish stocks. For example, DFWA regularly engages DEWHA regarding interaction with protected species and also consults with the Department of Agriculture, Fisheries and Forestry regarding the Offshore Constitutional Settlement and with the Australian Fisheries Management Authority on cross-</p>  | <p>Ongoing. DEWHA encourage the participation in cross-jurisdictional activities where appropriate, to ensure the ongoing ecological sustainability of the SBPMF.</p> |

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|   | <p>jurisdictional fishery issues.</p> <p>DFWA indicates that it has not had the need to consider any cross-jurisdictional activities regarding species taken or activities within the SBPMF.</p>   |   |
| <p><b>7.</b> Ongoing monitoring should be implemented sufficient to identify long-term trends in bycatch between fished and unfished areas to ensure that information used in the risk assessment for the fishery remains based on accurate and current data.</p> | <p>The FRDC Biodiversity project is working toward meeting this recommendation. The final report will be forwarded to FRDC in early 2008 but preliminary results indicate high species richness in trawled and untrawled sites. The maximum fish and invertebrate species richness was found in the northern and southern extremes of the prawn trawl grounds, and the minimum was found at the northern limits of Shark Bay. Similarly, no consistent patterns were observed with species evenness and diversity indices when comparing trawled and untrawled sites. Differences in diversity measures were observed both between sites and sites within assemblages at a given point in time (spatial differences), and from year to year at each sample location (temporal differences). However these differences were not consistent and were not attributable to whether a site was trawled or not. This indicates that many other factors in addition to trawl impacts are important in species richness and diversity.</p> <p>One of the main objectives of this project was to compare the faunal composition between trawled and untrawled areas and if the faunal composition was similar, then it was highly likely that closed areas act as refuges for the majority of those species impacted by trawling. Faunal composition was similar in trawled and untrawled areas in general and therefore it is sufficient that the principal form of monitoring (and indeed management) of species diversity matters in the Shark Bay fisheries is the extent</p> | <p>Ongoing (<b>Recommendation 6</b> Table 4).</p> |

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|   | of the trawled areas. Furthermore, preliminary results also suggest that the percentage of the area trawled should not exceed that observed in recent years (approximately 40% of area of the fishery open to trawling).  |   |
| <b>8.</b> The importance of specific areas and habitats to applicable bycatch species during all stages of their life cycle should be considered when applying the results of biodiversity research to management arrangements. | The FRDC Biodiversity project addresses this recommendation. It is considered that the substantial permanent area closures and other temporal closures that are applied in the SBPMF provide protection to the key life history stages of the majority of the bycatch species. The project identified that the 10-20 most common species of fish and invertebrates could be used as indicator species (for trends in abundance and diversity measures) in Shark Bay. These are all relatively short-lived, abundant and widespread in both trawled and untrawled areas. | Ongoing ( <b>Recommendation 6</b> Table 4). |
| <b>9.</b> A mechanism should be developed to enable the amendment of management arrangements to respond to new information or future Government plans and policies.   | Section 65 of the FRM Act provides for the amendment of management plans.<br><br>The <i>Shark Bay Prawn Management Plan 1993</i> (clause 10) also provides the ability to alter the management arrangements (season opening and closing dates, area closures, etc.) from year to year according to what is considered to be in the better interests of the fishery.   | Met.  |
| <b>10.</b> All protected species interactions by commercial operations should be reported and coupled with an education program to ensure industry has the capacity to make accurate reports.                                   | The Research logbooks completed by licence holders within the fishery include provisions to report any interactions with protected species.<br><br>Reporting requirements are included as a standing item on the agenda for annual pre-season briefings. Fishers' are also given a Protected Marine Species Identification Guide that contains: <ul style="list-style-type: none"> <li>• pictures and a brief description of relevant</li> </ul>  | Met.  |

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|  | <p>protected species; and</p> <ul style="list-style-type: none"><li>• specific details to include in logbooks.</li></ul> |  |
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**Table 3: DEWHA assessment of the SBPMF 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**

| <p><b>Division 1 Listed threatened species</b><br/> <b>Section 208A Minister may accredit plans or regimes</b></p>   | <p><b>DEWHA assessment of the SBPMF</b></p>  |
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| <p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p style="padding-left: 40px;">(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p style="padding-left: 80px;">i. made by a State or self-governing Territory; and</p> <p style="padding-left: 80px;">ii. in force under a law of the State or self-governing Territory;</p> <p>if <b>satisfied</b> that:</p> <p style="padding-left: 40px;">(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 style="padding-left: 40px;">(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 SBPMF will be managed under the:</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</i></li> <li>• <i>WA Shark Bay Prawn Management Plan 1993</i>.</li> </ul> <p>The <i>Shark Bay Prawn Management Plan 1993</i> was accredited in February, 2003. The management arrangements for the SBPMF have not significantly changed since this accreditation was granted. Consequently, a new Part 13 declaration is not needed at this time. DEWHA considers the current operation of the SBPMF is not likely to adversely affect the conservation status of a listed threatened species or a population of that species.</p> <p>However, noting the upcoming amendment (before the commencement of the 2008 fishing season) to the <i>WA Shark Bay Prawn Management Plan 1993</i> to allow for the use of quad gear, unitization of head rope length, and removal of the 375 boat unit rule, further assessment may be required.</p> |

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| <p><b>Division 2 Migratory species</b><br/> <b>Section 222A Minister may accredit plans or regimes</b></p>  | <p><b>DEWHA assessment of the SBPMF</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> <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 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 SBPMF will be managed under the:</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</i></li> <li>• <i>WA Shark Bay Prawn Management Plan 1993.</i></li> </ul> <p>The <i>Shark Bay Prawn Management Plan 1993</i> was accredited in February, 2003. The management arrangements for the SBPMF have not significantly changed since this accreditation was granted. Consequently, a new Part 13 declaration is not needed at this time. DEWHA considers the current operation of the SBPMF is not likely to adversely affect the conservation status of a listed migratory species or a population of that species.</p> <p>However, noting the upcoming amendment (before the commencement of the 2008 fishing season) to the <i>WA Shark Bay Prawn Management Plan 1993</i> to allow for the use of quad gear, unitization of head rope length, and removal of the 375 boat unit rule, further assessment may be required.</p> |
| <p><b>Division 3 Whales and other cetaceans</b><br/> <b>Section 245 Minister may accredit plans or regimes</b></p>  | <p><b>DEWHA assessment of the SBPMF</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> <p>i. made by a State or self-governing Territory; and</p>   | <p>The SBPMF will be managed under the :</p> <ul style="list-style-type: none"> <li>• <i>WA Fish Resources Management Act 1994</i></li> </ul>   |

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| <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 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>   | <ul style="list-style-type: none"> <li>• <i>WA Fish Resources Management Regulations 1995</i></li> <li>• <i>WA Shark Bay Prawn Management Plan 1993.</i></li> </ul> <p>The <i>Shark Bay Prawn Management Plan 1993</i> accredited in February, 2003. The management arrangements for the SBPMF have not significantly changed since this accreditation was granted. Consequently, a new Part 13 declaration is not needed at this time. DEWHA considers the current operation of the SBPMF is not likely to adversely affect the conservation status of whales and other cetaceans or a population of whales and other cetaceans.</p> <p>However, noting the upcoming amendment (before the commencement of the 2008 fishing season) to the <i>WA Shark Bay Prawn Management Plan 1993</i> to allow for the use of quad gear, unitization of head rope length, and removal of the 375 boat unit rule, further assessment may be required.</p> |
| <p><b>Division 4 Listed marine species</b><br/> <b>Section 265 Minister may accredit plans or regimes</b></p>  | <p><b>DEWHA assessment of the SBPMF</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> <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 marine species are not killed or injured as a result of the fishing; and</p> | <p>The SBPMF will be managed under the:</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</i></li> <li>• <i>WA Shark Bay Prawn Management Plan 1993.</i></li> </ul> <p>The <i>Shark Bay Prawn Management Plan 1993</i> was accredited in February, 2003. The management arrangements for the SBPMF have not significantly changed since this accreditation was granted. Consequently, a new Part 13 declaration is not needed at this time.</p>   |

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| <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>DEWHA considers the current operation of the SBPMF is not likely to adversely affect the conservation status of listed marine species or a population that species.</p> <p>However, noting the upcoming amendment (before the commencement of the 2008 fishing season) to the <i>WA Shark Bay Prawn Management Plan 1993</i> to allow for the use of quad gear, unitization of head rope length, and removal of the 375 boat unit rule, further assessment may be required.</p> |
| <p><b>Section 303AA Conditions relating to accreditation of plans, regimes and policies</b></p>   | <p><b>DEWHA assessment of the SBSMF</b></p>  |
| <p>(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.</p>   | <p>DEWHA recommends that SBSMF be accredited under sections 208A, 222A, 245 and 265.</p>   |
| <p>(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only:</p> <ul style="list-style-type: none"> <li>(a) during a particular period; or</li> <li>(b) while certain circumstances exist; or</li> <li>(c) while a certain condition is complied with.</li> </ul> <p>In such a case, the instrument of accreditation is to specify the period, circumstances or condition.</p> | <p>No condition has been imposed on SBSMF to satisfy section 208A 222A, 245 and 265 under Part 13.</p>   |
| <p>(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.</p>   |  |

**Part 13A**

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| <p><b>Section 303DC Minister may amend list</b></p>  | <p><b>DEWHA assessment of the SBPMF</b></p>   |
| <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> <ul style="list-style-type: none"> <li>(a) including items in the list.</li> </ul> |   |
| <p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p>  | <p>The public comment period on the DFWA submission sought comment on the annual reports and submission for the SBPMF and</p> |

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| <p>(a) must consult such other Minister or Ministers as the Minister considers appropriate; and</p> <p>(b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and</p> <p>(c) may consult such other persons and organisations as the Minister considers appropriate.</p>   | <p>provided sufficient opportunity for consultation with other persons and organisations.</p> <p>A letter to the WA Fisheries Minister, the Hon Jon Ford MLC 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 SBPMF made under section 303DC will be gazetted and made available on the DEWHA website.</p>  |
| <p><b>Section 303FR Public consultation</b></p>   | <p><b>DEWHA assessment of the SBPMF</b></p>   |
| <p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <p>(a) setting out the proposal to make the declaration; and</p> <p>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</p> <p>(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.</p> | <p>Under the EPBC Act, a decision to amend the List of Exempt Native Specimens (LENS) does not require a public consultation period. However, a public notice, which set out the proposal to grant export approval to the SBPMF and included the submission and annual reports for the SBPMF was released for public comment which closed on 12 November 2007 with 1 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 grant export approval to the SBPMF and included the submission and annual reports for the SBPMF was released for public comment on 15 October 2007 and closed on 12 November 2007, a total of 20 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 DEWHA assessment has considered the public comment received on the submission.</p>   |

**Part 16**

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| <p><b>Section 391 Minister must consider precautionary principle in making decisions</b></p> | <p><b>DEWHA assessment of the SBPMF</b></p> |
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| (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 must be 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 the Convention on International Trade in Endangered Species of Wild Fauna and Flora (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 DFWA for the SBPMF.**

The material submitted by DFWA indicates that the SBPMF operates in accordance with the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2<sup>nd</sup> 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 gear controls such as the mandatory use of bycatch reduction and fish exclusion devices, and seasonal and area closures 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 real time monitoring, spatial and temporal closures based on spawning stock, data collection systems and defined acceptable catch ranges, DEWHA considers that fishing operations are managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem. Management of the fishery has a history of reacting appropriately to threats to sustainability and DEWHA is confident that DFWA will continue to provide this high quality management.

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 plan was accredited under Part 13 of the EPBC Act in February, 2003. Since there have been no 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 should be addressed within the life of the declaration (5 years).

**Table 4: SBPMF Assessment– Summary of Issues, and Recommendations December, 2007**

|   | <b>Issue</b>   | <b>Recommendation</b>   |
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| 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, 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 legislated amendments that may affect sustainability of the target species or negatively impact on by-product, bycatch, protected species or the ecosystem.</p> <p>In its 2007 submission DFWA, advised of a pending amendment to the management plan, associated with a change in the fishing gear used in the SBPMF. Once WA Ministerial approval has been granted to draft amendments to the management plan, DFWA should notify DEWHA to ensure the original export decision remains in place.</p> | <p><b>Recommendation 1:</b> Operation of the fishery will be carried out in accordance with the <i>Shark Bay Prawn Managed Fishery Management Plan 1993</i> made under the <i>Western Australian Fish Resources Management Act 1994</i>.</p> <p><b>Recommendation 2:</b> DFWA to advise DEWHA of any intended material change to the SBPMF legislated management regime and management arrangements that could affect the criteria on which EPBC Act decisions are based.</p> |
| 2 | <p><u>Annual reporting</u></p> <p>It is important that reports 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.</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</p>  | <p><b>Recommendation 3:</b> DFWA to produce and present reports to DEWHA annually as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p>  |

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|   | <p>accreditation of the fishery (for a complete description of annual reporting requirements, see Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> available from the DEWHA 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>   |   |
| 3 | <p><u>Review of management arrangements</u></p> <p>DFWA has released a draft review report on the Shark Bay Prawn and Scallop Fisheries in the form of <i>Fisheries Management Paper 222</i> (FMP). The paper reviewed management arrangements and identified research requirements to ensure an appropriate scientific basis for decision-making into the future.</p> <p>DEWHA commends DFWA for undertaking the review and now considers the fishery is in an excellent position to implement identified management options to ensure the long term ecological sustainability of the fishery. Accordingly, DEWHA recommends DFWA progresses the review process and moves to implement Ministerial decisions on the review findings.</p>  | <p><b>Recommendation 4:</b> By mid 2008, DFWA to advise the WA Minister for Fisheries on the outcomes of the Shark Bay Prawn and Scallop Fisheries Review process, and to commence implementing subsequent Ministerial decisions arising from the Review findings.</p>  |
| 4 | <p><u>Gear Interactions and Fishery Inter-relationships</u></p> <p>The fishing grounds of the Shark Bay Prawn Fishery and Shark Bay Scallop Fishery overlap. The inter-relationship between trawling activity for the two target species (prawns and scallops) has created management challenges and industry conflict. The FMP stated the urgent need to further investigate the level of gear interaction between the prawn and scallop fisheries, and whether this may be a cause for the recent low scallop recruitment and subsequent catches in the fishery.</p> <p>This urgency was noted at a recent workshop that reviewed the research and management needs in the Shark Bay trawl fisheries. Both prawn and scallop sectors support the need to fully and rigorously address the issue of gear interactions in those areas of the fishery where the distributions of the target species overlap.</p> <p>DEWHA therefore recommends that DFWA continue to investigate the impact of gear</p> | <p><b>Recommendation 5:</b> DFWA to continue to investigate the impact of gear interaction in those areas of the Shark Bay Prawn and Scallop Fisheries where the distribution of the target species overlap, and where appropriate implement management responses to address and mitigate the impacts identified.</p> |

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|   | interactions between the Shark Bay Prawn and Scallop Fisheries, and other relevant Fisheries within Shark Bay, and to implement management responses to address the issues identified.   |   |
| 5 | <p><u>Bycatch Action Plan</u></p> <p>The Bycatch Action Plan (BAP) for the SBPMF was released for public comment in 2002, but is still a draft version. DEWHA recommends that this document be finalised and adopted as soon as possible. DEWHA considers the ongoing implementation of the BAP, including public reporting against its progress, to be a key objective for the fishery to ensure its impacts on bycatch (including protected species) and the marine environment are minimised.</p>   | <p><b>Recommendation 6:</b> By December 2008, DFWA to finalise, adopt and implement the Bycatch Action Plan for the SBPMF, including ongoing review and progress reporting on it's implementation.</p>  |
| 6 | <p><u>Change to quad gear and potential fleet restructure</u></p> <p>DFWA have advised that following trials of quad gear over the last two fishing seasons, the use of quad gear, unitization of head rope length, and removal of the 375 boat unit rule are to be formalised by a management plan amendment prior to the 2008 fishing season. Further, to improve the ongoing economic viability of the fishery in 2007 only 18 of the 27 licences for the fishery will remain active. The total headrope length being operated has been reduced by 10% under an industry agreement. Industry is currently investigating restructure options to bring about a permanent reduction in the size of the fishing fleet.</p> <p>DEWHA recommends DFWA conduct an Ecological Risk Assessment (ERA) on the impact of the above changes to the fishery on target, byproduct, bycatch and protected species. DFWA should then identify and implement appropriate management responses to address and mitigate risks and impacts identified in the ERA to ensure the ongoing ecological sustainability of the SBPMF.</p> | <p><b>Recommendation 7:</b> By December 2010, DFWA to conduct an ERA on impacts from the changes to the fishery – the use of quad gear, unitization of head rope length, removal of the 375 boat unit rule and any fleet restructure – on target, byproduct, bycatch (including protected species) and the marine environment. Should risks be identified, DFWA to investigate measures to ensure that issues identified at risk are minimised.</p> |

## References

*Shark Bay prawn and scallop fisheries: Draft Review Report*. Perth, WA: Department of Fisheries, April 2007. Fisheries Management Paper no. 222.

## Acronyms

|                 |  |
|-----------------|--|
| BAP             | Bycatch Action Plan  |
| BRD             | Bycatch Reduction Device   |
| CITES           | Convention on International Trade in Endangered Species              |
| DEWHA           | Department of the Environment, Water, Heritage and the Arts          |
| DFWA            | Department of Fisheries, Western Australia                           |
| EPBC Act        | <i>Environment Protection and Biodiversity Conservation Act 1999</i> |
| ERA             | Ecological Risk Assessment   |
| ESD             | Ecologically Sustainable Development                                 |
| FED             | Fish Escapement Device   |
| FMP             | Fisheries Management Paper   |
| FRM Act         | <i>Fish Resources Management Act 1994</i>                            |
| FRM Regulations | <i>Fish Resources Management Regulations 1995</i>                    |
| FRDC            | Fisheries Research and Development Corporation                       |
| LENS            | List of Exempt Native Specimens                                      |
| MAC             | Management Advisory Committee  |
| SBPMF           | Shark Bay Prawn Managed Fishery                                      |
| WA              | Western Australia  |