



Australian Government

Department of the Environment, Water, Heritage and the Arts

Assessment of the
Torres Strait Prawn Fishery

February 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*. 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 Torres Strait Prawn Fishery

Publicly available information relevant to the fishery	<ul style="list-style-type: none"> • Torres Strait Prawn Fishery Management Plan 2009 (the Management Plan) • <i>Torres Strait Fisheries Act 1984</i> (TSF Act) • <i>Torres Strait Fisheries Regulations 1985</i> (TSF Regulations) • Australian Fisheries Management Authority (AFMA) – Fishery Assessment Report, Torres Strait Prawn Fishery, November 2007 • Stock Assessment of the Torres Strait Tiger Prawn Fishery (<i>Penaeus esculentus</i>) 2006 • Australian Government Bureau of Rural Sciences (BRS) Fishery Status Reports 2007 • Department of the Environment and Heritage – Assessment of the Torres Strait Prawn Fishery, November 2005 • Torres Strait Prawn Fishery Handbook 2009
Area	<p>The Torres Strait Prawn Fishery (TSPF) is a multi-species prawn fishery, which operates in the eastern part of the Torres Strait. The TSPF is restricted to roughly 20% of the Torres Strait Protected Zone (TSPZ) (Approximately 8,000 square kilometres). The main TSPF fishing ground is to the east of Warrior Reef, particularly around Masig (Yorke) Island.</p> <p>The TSPF fishing grounds are bounded to the west by the Warrior Reef complex, the east by the reefs surrounding Darnley Island, the north by the border of the TSPZ and the south by the border of the “outside but near” area. A detailed area of the fishery can be found at http://www.pzja.gov.au/resources/maps/prawn_map.htm</p>
Fishery status	<p>According to the 2007 BRS Fishery Status Reports, the TSPF tiger prawn stock is not overfished and not subject to overfishing, and endeavour and king prawn stocks are both uncertain.</p> <p>The maximum sustainable yield (MSY) for brown tiger prawns was estimated in 2006 to be within the range 606 tonnes (t) (Ticher model) and 676 t (Beverton and Holt model). An endeavour prawn assessment model was initially developed by modifying the existing tiger prawn assessment model to suit the biology of endeavour prawns. Recently a more detailed model was developed tracking numbers of endeavour prawns by age and length classes. Preliminary results showed that the endeavour stock was considered healthy. However the reliability of past endeavour prawn catch rate data is uncertain. No current estimates are available for king prawns.</p> <p>The potential for the activation of latent effort in the fishery was reduced in 2005-06 through a 31.8% pro-rata effort reduction to TSPF entitlement holders agreed to by the Protected Zone Joint Authority (PZJA) on 3 November 2005. Recent catch and effort rates suggest latent effort in the form of unused fishing nights still exists in the fishery although a TAE is in place.</p>
Target species	<p>Key target species:</p> <ul style="list-style-type: none"> • brown tiger prawns (<i>Penaeus esculentus</i>); and

	<ul style="list-style-type: none"> • blue endeavour prawns (<i>Metapenaeus endeavouri</i>). <p>Red-spot king prawns (<i>Melicertus longistylus</i>) are also targeted within the fishery in much lower numbers.</p>
Byproduct species	<p>Byproduct species include:</p> <ul style="list-style-type: none"> • Moreton Bay bugs (<i>Thenus orientalis</i>); • saucer scallops (<i>Amusium pleuronectes</i>); and • various species of cephalopod (squid, cuttlefish and octopus).
Gear	<p>Fishing is conducted using otter trawl “quad gear” that consists of two pairs of nets with each pair towed from a boom on either side of the vessel.</p> <p>The maximum amount of net allowed per vessel is 88 metres in total which includes the head rope plus the foot rope and try gear. Mesh size must be no smaller than 45 millimetres in the body of the net and 38 millimetres in the codend.</p> <p>Further details on gear restrictions are set out in the Fisheries Management Notice (FMN) number 71.</p>
Season	<p>The TSPF is open from March to November each year. The closed season from 1 December to 1 March is in place to allow tiger prawns to reach a marketable size before they are fished.</p>
Commercial harvest 2007	<p>Approximately 1132 t of prawns caught in total consisting of:</p> <ul style="list-style-type: none"> • Tiger prawns – 582 t; • Endeavour prawns – 503 t; and • King prawns – 47 t.
Value of commercial harvest	<p>The TSPF is the most valuable commercial fishery in the Torres Strait. In 2006-2007 the catch was worth an estimated \$11.3 million.</p>
Take by other sectors	<p>Prawn stocks are shared with Papua New Guinea (PNG) in the area of the TSPZ to the north of the TSPF; however PNG operators have not fished for prawns in recent years.</p> <p>AFMA advises the recreational catch of prawns in the Torres Strait is negligible, and that there is no Indigenous harvest in the fishery.</p>
Commercial licences issued	<p>The fishery is capped at 61 Australian licenses in the TSPF, several also possess endorsements for the Queensland East Coast Otter Trawl Fishery or the Northern Prawn Fishery.</p> <p>At the end of June 2006, there were 51 active licences in the TSPF and 10 inactive licences that were not nominated to boats. A total of 6,867 fishing days are available to be fished by Australian operators (including days attached to inactive licenses).</p> <p>2,070 fishing days are available for PNG fishers to operate in the Australian area of the TSPZ, and an additional 263 days are held in trust by the Australian Government.</p>
Management arrangements	<p>The TSPF operates in both Queensland and Commonwealth waters and is managed by the PZJA, established under the TSF Act.</p> <p>The Australian Parliament ratified the Torres Strait Treaty with PNG</p>

	<p>(the Treaty) on 15 February 1985. The Treaty is designed to resolve issues of sovereignty and maritime boundaries in the Torres Strait separating the two countries, to recognise and protect the traditional way of life and livelihood of traditional inhabitants and to protect the Torres Strait marine environment.</p> <p>Under the Treaty, PNG is entitled to a 25% share of all commercial fishery resources located within Australian fisheries jurisdictional waters within the TSPZ, south of the Fisheries Jurisdiction Line (FJL). It also entitles Australia to a 25% share of commercial fishery resources in PNG fisheries jurisdictional waters within the TSPZ. Historically, PNG participation in the prawn fishery on the Australian side of the FJL has been low.</p> <p>The fishery is managed under the Torres Strait Prawn Fishery Management Plan 2009 in force under the TSF Act and the TSF Regulations as well as FMNs and FMIs which are legislated through the TSF Act.</p> <p><u>Output controls</u></p> <ul style="list-style-type: none"> • Spatial, Temporal and Spawning closures; • Turtle Excluder Devices (TEDs); • Bycatch Reduction Devices (BRDs); and • Gear restrictions including mesh size and net length. <p><u>Input controls</u></p> <ul style="list-style-type: none"> • Limited entry; • Total Allowable Effort (TAE) fishing days; and • Vessel length restrictions. <p>Other management arrangements include compulsory logbooks and Vessel Monitoring Systems (VMS).</p>
Export	Tiger Prawns are exported primarily to Japan, and there is an export market to Europe for Endeavour Prawns.
Bycatch	The bycatch of the TSPF is highly diverse with over 260 species caught. Bony fish dominate the bycatch with an average of 78% by weight of total landings. Poor taxonomic resolution of invertebrates masks some of the diversity of the catch. An assessment of the relative sustainability of the fish bycatch was undertaken by examining the susceptibility of species to capture and mortality due to trawling and the ability of a population to recover once depleted. Species that are least likely to persist in the TSPZ are those that have benthic or demersal habitat preferences with large portions of their distribution in the TSPF trawl grounds.
Interaction with protected species¹	Operators in the TSPF may interact with turtles, sea snakes, syngnathids, dugongs and protected species of sawfish. The compulsory use of TEDs and BRDs in trawl nets has resulted in a reduction in the abundance of bycatch and species composition. The Department of the Environment, Water, Heritage and the Arts (DEWHA) notes that TEDs

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.

	and BRDs are not required in try nets, and that this is something which should be considered by the PZJA.
Ecosystem impacts	<p>Impacts of trawling in general include changes to benthic communities, food chains and the physical environment. The ground gear used in prawn trawls impacts on benthic communities including sessile animals such as sponges and gorgonians.</p> <p>Studies of the broader ecosystem effects of trawling in the Torres Strait region have only recently been completed. A seabed mapping study of the TSPZ which was carried out by Commonwealth Scientific and Industrial Research Organisation (CSIRO) (Pitcher <i>et al.</i>, 2007) found the area fished by the TSPF is mostly devoid of attached biological habitat, but that the softer sediment areas showed signs of animal habitation.</p>
Impacts on CITES-listed specimens	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 TSPF impact on specimens listed under CITES has been conducted.
Impacts on World Heritage property/RAMSAR site	<p>The assessment also considered the possible impacts on the World Heritage values of the Great Barrier Reef Marine Park World Heritage Area (GBRWhA), which is in close proximity to the TSPF.</p> <p>Under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act), a person may not take an action that has, will have or is likely to have a significant impact on the world heritage values of a declared World Heritage property.</p> <p>DEWHA considers that the current impact from fishing in the TSPF will not impact significantly on the listed values of the GBRWhA. Any significant change to existing practices, which is likely to significantly impact on the World Heritage values of the Great Barrier Reef, may require approval by the Australian Government Minister for the Environment, Heritage and the Arts.</p> <p>On this basis DEWHA considers that an action taken by an individual fisher, acting in accordance with the Management Plan, would not be expected to have a significant impact on a matter protected by the EPBC Act.</p>

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

Recommendation	Progress	Recommended Action
The Department of the Environment and Heritage (DEH) to be informed of any proposed amendment to the management regime for the TSPF to enable DEH to evaluate any impact on the ecological sustainability of the fishery.	Met and ongoing DEWHA has been informed of proposed amendments to the management regime for the TSPF.	This recommendation has been met however it will continue to apply to the TSPF as a generic condition (Condition 2, Table 4).
PZJA to continue to ensure that consultative processes are conducted in a manner that ensures the timely implementation of management responses essential for the sustainability of the fishery.	Met and ongoing The Torres Strait Prawn Management Advisory Committee (TSPMAC) provides opportunities for stakeholders to provide input to the management process for the TSPF. TSPMAC discussed issues relating to the TSPF including the development of the Management Plan in February and June 2007. TSPMAC met on four occasions in 2008 in addition to a Total Allowable Effort Working Group that met on three occasions. The PZJA has been consulted in April and October 2006, June 2007 (Out of Session) August 2007 and May 2008.	This recommendation has been complied with to date with sufficient progress made. The PZJA has made good progress in improving consultation mechanisms in recent years, including the formation of TSPMAC in 2006. No further recommendation is required in this assessment however DEWHA will monitor continued progress at the time of the next assessment in 2011.
PZJA to develop and apply fishery specific management objectives, performance indicators and performance measures for target, key byproduct, bycatch and protected species and ecosystem impacts. PZJA to ensure that adequate information collection systems are put in place to monitor performance against indicators.	Ongoing Objectives, performance measures and performance criteria have been developed as part of the proposed Management Plan. Also, information collection systems are being developed and will be implemented following the introduction of the Management Plan in 2009.	DEWHA acknowledges the progress made to date and that further information collection systems are being developed for implementation following the implementation of the Management Plan. Revised recommendation has been included in this assessment (Recommendations 1 and 5, Table 4).

PZJA to develop a clear process for determining the reason for a performance measure being triggered and for implementing appropriate management measures within specific timeframes.	Ongoing The process will be developed in 2009 following the introduction of the Management Plan.	DEWHA notes this recommendation is still in progress. DEWHA recommends that a Harvest Strategy is implemented in the TSPF that will address these issues (Recommendation 1, Table 4).
PZJA to develop within one year a strategy and timeframes for implementing any resultant recommendations arising from the formal compliance risk assessment.	Met and ongoing A workshop was held on 4 May 2005, involving officers from AFMA and Queensland Department of Primary Industries and Fisheries (DPI&F), to discuss options for addressing compliance risks identified in Torres Strait fisheries.	Although some action has been taken against this recommendation across all Torres Strait fisheries, DEWHA considers that following the implementation of the TSPF Management Plan, a fishery specific compliance risk assessment should be undertaken. A revised recommendation has been included in this assessment (Recommendation 6, Table 4).
PZJA to report annually on performance of the fishery against specified objectives and measures, once developed, with the reports to be made publicly available.	Ongoing To be developed in 2009 following the introduction of the Management Plan.	Annual reporting has been included in this assessment as a generic condition (Condition 1, Table 4).
PZJA will continue to cooperate with other relevant jurisdictions to pursue complementary management and research of shared stocks for all target, byproduct and bycatch species, which may be affected by cross-jurisdictional issues.	Ongoing Consultation with PNG on fisheries issues is undertaken regularly. Complementary management arrangements are sought and worked towards at these bilateral meetings.	DEWHA commends the PZJA's continued cooperation with other jurisdictions to promote complementary management arrangements, primarily through bilateral fisheries meetings with PNG. DEWHA recognises the efforts of the PZJA in collaborating with other jurisdictions and encourages continued cooperation to enable complementary management of shared stocks (Recommendation 7, Table 4).

PZJA, within 12 months, to develop and implement an ongoing robust system to validate effort and catch data on target and byproduct species.	<p>Ongoing Effort is validated by VMS program. A scientific observer program has been implemented to validate catch of target and byproduct species.</p>	<p>DEWHA notes that a scientific observer program has been implemented in the TSPF. DEWHA recommends that in order to be effective, the program should be determined to be statistically robust and capable of validating effort and catch data as well as validating protected species interactions and impacts on the marine ecosystem.</p> <p>A revised recommendation has been included in this assessment (Recommendation 5, Table 4).</p>
PZJA to develop and implement a robust and regular stock assessment process, which estimates key population parameters and quantifies the uncertainty associated with each and provides a basis for risk-based management decisions for each target species, where such an analysis is feasible. For other species, the assessment process will examine the ecological sustainability of the take of target, byproduct and bycatch using qualitative or semi-quantitative risk assessments. Appropriate management responses will be developed to reduce risks to the high-risk species or groups.	<p>Ongoing A stock assessment process was undertaken for brown tiger prawns in 2006. A stock assessment process is underway for endeavour prawns and is likely to be completed during 2008.</p> <p>As yet, no assessment has taken place or has been planned to examine the ecological sustainability of byproduct species such as Moreton Bay bugs, or of any bycatch species. This will be able to be completed following the delivery of the Level 2 Ecological Risk Assessment (ERA) for the TSPF.</p>	<p>DEWHA commends the progress towards this recommendation and notes further processes planned for completion in the near future.</p> <p>DEWHA recommends the harvest strategy for the TSPF is based on scientific advice including stock assessments.</p> <p>This recommendation is ongoing and has been continued in this assessment (Recommendation 1, Table 4).</p>
PZJA to develop and commence by the start of the 2006 fishing season a program to reduce effort to ecologically sustainable levels with clear objectives and timeframes.	<p>Met and ongoing An effort reduction of 31.8% occurred in 2005; as a consequence, the available fishing days have been reduced from 13,396 to 9,197.</p> <p>A further tender reduction was undertaken in</p>	<p>DEWHA commends the progress made to date and recommends that the PZJA ensures the TAE is set at a level which will not result in a higher than sustainable catch of key target and byproduct species.</p>

	<p>2006, during which 2,333 of the 9,197 fishing days available (rounded up to 9,200 fishing days) were bought back by the Australian Government. 2,070 of these days are made available to PNG operators, and the Australian Government holds the remaining 263 days in trust.</p> <p>For 2009 interim arrangements for effort allocation have been negotiated through TSPMAC to allow Australian operators to utilise effort that would otherwise be reserved for PNG. PNG has agreed to not utilise their effort allocation for 2009 and the effort allocated to Australian operators has been adjusted to allow for these days not being used. This has resulted in approximately 9,000 days effort being made available to Australian operators for the 2009 season.</p> <p>The PZJA has indicated that this is a temporary arrangement and that effort management will follow the Management Plan following the 2009 season.</p>	<p>This recommendation is ongoing and has been included in this assessment as a revised recommendation (Recommendation 1, Table 4).</p>
<p>PZJA will continue to pursue reduction in the amount of bycatch taken in the TSPF through the refinement of bycatch mitigation technology and will investigate methods for increasing the survivability of bycatch species. Any suitable methods identified should be implemented in a timely manner.</p>	<p>Ongoing</p> <p>TEDs and BRDs are compulsory for all fishing nets except try nets in the TSPF. A new BRD was recently introduced as an option for operators, after it proved effective in the Queensland East Coast Otter Trawl Fishery.</p>	<p>DEWHA commends the progress made on this recommendation.</p> <p>DEWHA considers this is ongoing and recommends the PZJA investigates and then mitigate any impacts of not using BRDs and TEDs on try nets.</p> <p>These issues have been included in this assessment as revised recommendations (Recommendations 2 and 3, Table 4).</p>

<p>PZJA to promote research into the impact of the fishery on protected species, including syngnathids and seasnakes, and to take all reasonable steps to reduce protected species interactions.</p>	<p>Ongoing Research into the impact of the TSPF on protected species has been identified as a high priority, but no such research has yet been undertaken. DEWHA notes that there has been research conducted in the Northern Prawn Fishery operating in waters adjacent to the TSPF that may provide results applicable to the TSPF. One project that should be considered includes the recently completed <i>Risk Assessment and Mitigation for Sea Snakes Caught in the Northern Prawn Fishery</i> that included sea trials of the pop-eye fish box. This BRD produced some positive results for bycatch mitigation in prawn trawls.</p>	<p>DEWHA considers research into the impacts of the fishery on protected species to be of high priority and therefore recommends the PZJA continues to promote research into the impacts of the TSPF on protected species.</p> <p>This recommendation has been included in this assessment as a revised recommendation (Recommendation 3, Table 4).</p>
<p>PZJA to develop and implement a spatial management system within the TSPF that takes account of the impacts of fishing on:</p> <ul style="list-style-type: none"> • species and populations identified by the ERA process as high risk; • important feeding/spawning/breeding/refuge grounds for key target, byproduct and protected species; and • benthic habitats. <p>This spatial management system will be integrated with the regional marine planning process for Northern Australia and will ensure</p>	<p>Ongoing The ERA for the TSPF is expected to be completed in the near future.</p> <p>Between 2003 and 2006, the Torres Strait Mapping and Characterisation Project run by CSIRO, Queensland Museum and DPI&F has mapped habitats and their associated biodiversity across the length and breadth of the TSPZ to provide information that will help managers with regional planning and to ensure that fisheries are ecologically sustainable</p> <p>The Project characterised the major patterns in the seabed biodiversity and habitats of the TSPZ, at spatial scales relevant to regional conservation and management needs.</p>	<p>DEWHA notes this recommendation is in progress and recommends the PZJA continues to refine spatial management arrangements within the TSPF to take account of the impacts of fishing on these species and habitats (Recommendation 4, Table 4).</p>

that the entire fishery area is taken into account.		
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Table 3: DEWHA assessment of the TSPF 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 4

Division 2 Actions covered by Ministerial declarations and accredited management arrangements or accredited authorisation process Section 33 Making declaration that actions do not need approval under Part 9	DEWHA assessment of the TSPF
<p>(1) The Minister may declare in writing that actions in a class of actions specified in the declaration wholly or partly by reference to the fact that their taking has been approved by the Commonwealth or a specified Commonwealth agency, in accordance with a management arrangement or authorisation process that is an accredited management arrangement or an accredited authorisation process for the purposes of the declaration, do not require approval under Part 9 for the purposes of a specified provision of Part 3.</p> <p>(2) A management arrangement is an accredited management arrangement if and only if:</p> <ul style="list-style-type: none"> (a) the management arrangement is in operation under a law of the Commonwealth identified in or under the declaration; and (b) the management arrangement has been accredited in writing by the Minister in accordance with this section for the purposes of the declaration. <p>(3) For the purposes of subsection (2), the Minister may accredit by written instrument a management arrangement or authorisation process</p>	<p>The management regime for the TSPF in force under the TSF Act and the TSF Regulations was accredited in November 2005.</p> <p>AFMA notified DEWHA of the proposal to develop a Management Plan for the TSPF in June 2007. The Management Plan allows for:</p> <ul style="list-style-type: none"> ▪ the application of a wide range of management measures needed to pursue ecosystem based fisheries management; ▪ the allocation of units of fishing capacity and for tradeable effort allocations; ▪ allow for the development of objectives and performance criteria; and ▪ for more certainty for operators by providing a clear framework for management decisions and appeal processes.

<p>for the purposes of a declaration. However, the Minister may do so only if the Minister is satisfied that:</p> <ul style="list-style-type: none"> (a) the management arrangement or authorisation process and the law under which it is in operation, or in which it is set out, meet the criteria prescribed by the regulations; and (b) there has been or will be adequate assessment of the impacts that actions approved in accordance with the management arrangement or authorisation process: <ul style="list-style-type: none"> (i) have or will have; or (ii) are likely to have; on each matter protected by a provision of Part 3 to which the declaration relates; and (c) actions approved or taken in accordance with the management arrangement or authorisation process will not have unacceptable or unsustainable impacts on a matter protected by a provision of Part 3 to which the declaration relates. <p>The Minister must publish in accordance with the regulations (if any) the instrument accrediting the management arrangement or authorisation process.</p>	<p>The Management Plan meets the criteria prescribed by the <i>Environment Protection and Biodiversity Regulations 2000</i> (EPBC Regulations) as it is in force under the TSF Act and will be endorsed under an agreement made under section 146.</p> <p>DEWHA considers that there has been adequate assessment of the impacts that actions approved in accordance with the Management Plan will have or are likely to have on the marine environment. DEWHA considers that actions approved or taken in accordance with the Management Plan will not have unacceptable or unsustainable impacts on the marine environment in a Commonwealth area.</p>
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Part 10

Division 2 Strategic Assessments Section 153 Minister must make declaration if he or she endorses plan or policy	DEWHA assessment of the TSPF
<p>(1) This section applies if:</p> <ul style="list-style-type: none"> (a) the Minister makes an agreement under section 146 as required by this Division and endorses under the agreement: <ul style="list-style-type: none"> (iii) a plan of management under the <i>Torres Strait Fisheries Act 1984</i> for a fishery; and 	<p>On 2 December 2007 the Delegate of the then Minister for the Environment and Water Resources made an agreement with the then Minister for Agriculture, Fisheries and Forestry on Terms of Reference for the assessment of the Management Plan under</p>

<p>(b) the Minister accredits, under subsection 33(3) of this Act, as an accredited arrangement a management plan or regime consisting of the endorsed plan or policies.</p>	<p>section 146 of the EPBC Act. The Management Plan is made under the TSF Act.</p>
<p>(2) The Minister must make a declaration under section 33 that actions approved in accordance with the accredited arrangement do not require an approval under Part 9 for the purposes of subsection 23(1), (2) or (3) or subsection 24A(1), (2), (3), (4), (5) or (6).</p>	<p>A declaration will be made in accordance with the provisions of Section 33 of the EPBC Act so that actions taken in accordance with the Management Plan do not require approval under Part 9 of the EPBC Act.</p>

Part 13

<p>Division 1 Listed threatened species Section 208A Minister may accredit plans or regimes</p>	<p>DEWHA assessment of the TSPF</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(b) a plan of management within the meaning of section 15A of the <i>Torres Strait Fisheries Act 1984</i>;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing; and</p> <p>(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 TSPF will be managed under the Management Plan in force under the TSF Act and the TSF Regulations. In light of new management arrangements coming into force, there is a need to accredit the TSPF under Part 13 of the EPBC Act.</p> <p>Given the legislation in force in the Torres Strait, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of any listed threatened species and the capture of any listed threatened species would be incidental to and not the purpose of the operation of the TSPF. DEWHA therefore believes it appropriate to accredit the Management Plan for the fishery under Part 13 of the EPBC Act.</p> <p>Currently, the PZJA reports that the TSPF has minimal interactions with listed threatened species (including marine turtles and sawfish). Given the low level of interactions and the management arrangements to decrease interactions with protected species, DEWHA considers the operation of the TSPF does not, or is not likely to adversely affect the</p>

	survival or recovery in nature of any listed threatened species.
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Division 2 Migratory species Section 222A Minister may accredit plans or regimes	DEWHA assessment of the TSPF
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(b) a plan of management within the meaning of section 15A of the <i>Torres Strait Fisheries Act 1984</i>;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed migratory species or a population of that species.</p>	<p>The TSPF will be managed under the Management Plan in force under the TSF Act and the TSF Regulations. In light of new management arrangements coming into force, there is a need to accredit the TSPF under Part 13 of the EPBC Act.</p> <p>Given the legislation in force in the Torres Strait, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of any listed migratory species in the TSPF. DEWHA therefore believes it appropriate to accredit the Management Plan for the fishery under Part 13 of the EPBC Act.</p> <p>Currently, the PZJA reports that the TSPF has minimal interactions with listed migratory species (including marine turtles). Given the low level of interactions and the management arrangements to decrease interactions with protected species DEWHA considers the operation of the TSPF does not, or is not likely to adversely affect the conservation status of a listed migratory species or a population of these species.</p>

Division 3 Whales and other cetaceans Section 245 Minister may accredit plans or regimes	DEWHA assessment of the TSPF
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(b) a plan of management within the meaning of section 15A of the <i>Torres Strait Fisheries Act 1984</i>;</p>	<p>The TSPF will be managed under the Management Plan in force under the TSF Act and the TSF Regulations. In light of new management</p>

<p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing; and</p> <p>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>arrangements coming into force, there is a need to accredit the TSPF under Part 13 of the EPBC Act.</p> <p>Given the legislation in force in the Torres Strait, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of cetaceans in the TSPF. DEWHA therefore believes it appropriate to accredit the Management Plan for the fishery under Part 13 of the EPBC Act.</p> <p>The PZJA reports there have been no interactions with cetaceans in the TSPF. Therefore, DEWHA considers the operation of the TSPF does not, or is not likely to adversely affect the conservation status of a species of cetacean or a population of these species.</p>
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<p>Division 4 Listed marine species</p> <p>Section 265 Minister may accredit plans or regimes</p>	<p>DEWHA assessment of the TSPF</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(b) a plan of management within the meaning of section 15A of the <i>Torres Strait Fisheries Act 1984</i>;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed marine species or a population of that</p>	<p>The TSPF will be managed under the Management Plan in force under the TSF Act and the TSF Regulations. In light of new management arrangements coming into force, there is a need to accredit the TSPF under Part 13 of the EPBC Act.</p> <p>Given the legislation in force in the Torres Strait, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of listed marine species in the TSPF. DEWHA therefore believes it appropriate to accredit the management regime for the fishery under Part 13 of the EPBC Act.</p> <p>The PZJA reports there have been some interactions with listed marine species (including seasnakes and syngnathids). Given the low level of interactions and the management arrangements to decrease interactions</p>

	with protected species DEWHA considers the operation of the TSPF does not, or is not likely to adversely affect the conservation status of a listed marine species or a population of these species.
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Section 303AA Conditions relating to accreditation of plans, regimes and policies	DEWHA assessment of TSPF
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	DEWHA recommends that the TSPF be accredited under sections 208A, 222A, 245 and 265.
(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only: <ul style="list-style-type: none"> (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	No condition has been imposed on the TSPF to satisfy sections 208A, 222A, 245 and 265 under Part 13.
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	

Part 13A

Section 303DC Minister may amend list	DEWHA assessment of the TSPF
(1) The Minister may, by instrument published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by: <ul style="list-style-type: none"> (a) including items in the list; (b) deleting items from the list; or (c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or (d) varying of revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or 	

(e) correcting an inaccuracy or updating the name of a species.	
<p>(1A) In deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>The TSPF was assessed under Part 10 of the EPBC Act in November, 2005. In conducting this assessment, DEWHA considered that actions taken in the fishery would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area over a period of three years while AFMA implemented recommendations to improve the management of the fishery.</p> <p>On 23 December 2005, the PZJA agreed to develop a Management Plan for the TSPF, including a number of new arrangements to promote greater management efficiency. The Management Plan moves management of the TSPF from the existing system of fishing nights, to a new system using effort units and includes management arrangements such as gear restrictions on mesh size and net length, compulsory use of TEDs and BRDs as well as the use of Vessel Monitoring System (VMS).</p> <p>DEWHA considers that the Management Plan would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area for a period of three years with AFMA progressing the implementation on recommendations made to improve the management of the fishery.</p>

<p>(1C) The above does not limit the matters that may be taken into account in deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery.</p>	<p>It is not possible to list exhaustively the factors that you may take into account in amending the List of Exempt Native Specimens (LENS). The objects of Part 13A, which are set out below this table, provide general guidance in determining factors that might be taken into account. A matter that is relevant to determining whether an amendment to the list is consistent with those objects is likely to be a relevant factor.</p> <p>DEWHA considers that the amendment of the LENS to include product taken in the TSPF Wildlife Trade Operation (WTO) would be consistent with the provisions of Part 13A as:</p> <ul style="list-style-type: none"> ▪ the fishery will not harvest any CITES listed species; ▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1); ▪ the operation of the TSPF is unlikely to be unsustainable and threaten biodiversity within the next three years; and ▪ the EPBC Regulations do not specify fish as a class of animal in relation to the welfare of live specimens.
<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <ul style="list-style-type: none"> (a) must consult such other Minister or Ministers as the Minister considers appropriate; and (b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and (c) may consult such other persons and organisations as the Minister considers appropriate. 	<p>DEWHA considers that the consultation requirements have been met. The public comment period on the PZJA submission sought comment on the submission for the TSPF and provided sufficient opportunity for consultation with other persons and organisations.</p> <p>Letters to the Hon Tony Burke, Minister for Agriculture, Fisheries and Forestry and the Hon Tony Rundle, AFMA Chairperson advise them of the intention to declare the fishery an approved WTO under 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 TSPF made under sections 303DC will be gazetted and made available on the DEWHA website.</p>

Section 303FN Approved wildlife trade operation	DEWHA assessment of the TSPF
(2) The Minister may, by instrument published in the <i>Gazette</i> , declare that a specified wildlife trade operation is an <i>approved wildlife trade operation</i> for the purposes of this section.	
<p>(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is satisfied that:</p> <p>(a) the operation is consistent with the objects of Part 13A of the Act; and</p> <p>(b) the operation will not be detrimental to:</p> <ol style="list-style-type: none"> i. the survival of a taxon to which the operation relates; or ii. the conservation status of a taxon to which the operation relates; and <p>(ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and</p>	<p>The TSPF is consistent with objects of Part 13A (listed after this table) as:</p> <ul style="list-style-type: none"> ▪ the fishery will not harvest any CITES listed species; ▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1); ▪ the operation of the TSPF is unlikely to be unsustainable and threaten biodiversity within the next three years; and ▪ the EPBC Regulations do not specify fish as a class of animal in relation to the welfare of live specimens. <p>DEWHA considers that the TSPF will not be detrimental to the survival or conservation status of a taxon to which it relates within the next three years, given the management measures currently in place, which include: spatial restrictions, temporal closures, gear restrictions, and size limits (for byproduct species), limits on boat length, net length, mesh size, dimensions of ground chain, and effort (fishing days), logbook reporting, BRDs and TEDs, VMS and area and seasonal closures.</p> <p>DEWHA considers that the TSPF will not threaten any relevant ecosystem within the next three years, given the management measures currently in place, which include: spatial restrictions, temporal closures, gear restrictions, and size limits (for byproduct species), limits on boat length, net length, mesh size, dimensions of ground chain, and effort (fishing days), logbook reporting, BRDs and TEDs</p>

<p>(c) if the operation relates to the taking of live specimens that belong to a taxon specified in the regulations – the conditions that, under the regulations, are applicable to the welfare of the specimens are likely to be complied with; and</p> <p>(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.</p>	<p>must be fitted to nets, VMS and area closures and seasonal closures.</p> <p>The EPBC Regulations do not specify fish as a class of animal in relation to the welfare of live specimens.</p> <p>No other conditions are specified in relation to commercial fisheries in the EPBC Regulations.</p>
<p>(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and</p> <p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<p>DEWHA considers that the TSPF will not have a significant impact on any relevant ecosystem within the next three years, given the management measures currently in place, which include: spatial restrictions, temporal closures, gear restrictions, and size limits (for byproduct species). Limits on boat length, net length, mesh size, dimensions of ground chain, and effort (fishing days), logbook reporting, BRDs and TEDs must be fitted to nets, VMS and area closures and seasonal closures.</p> <p>The management arrangements that will be employed for the TSPF are likely to be effective. Management arrangements include a cap of 9,200 fishing days in line with scientific advice on MSY estimates for tiger prawns. There is also a requirement for logbook reporting, BRDs and TEDs must be fitted to nets, VMS is compulsory on all vessels, and there are area closures and seasonal closures in place in the TSPF.</p>
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or Territory concerned; and</p>	<p>The TSPF will be managed under the Management Plan in force under the TSF Act and the TSF Regulations.</p> <p>The TSF Act applies throughout Torres Strait waters.</p> <p>The management arrangements that will be employed for the TSPF are</p>

(c) whether, in the opinion of the Minister, the legislation is effective.	likely to be effective. Management arrangements include: spatial restrictions, temporal closures, gear restrictions, and size limits (for byproduct species), limits on boat length, net length, mesh size, dimensions of ground chain, and effort (fishing days), logbook reporting, BRDs and TEDs must be fitted to nets, VMS and area closures and seasonal closures.
(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, and only if, the operation is an operation for the taking of specimens and: (d) the operation is a commercial fishery.	The TSPF is a commercial fishery.
(10A) In deciding whether to declare that a commercial fishery is an approved wildlife trade operation for the purposes of this section, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.	<p>The TSPF was assessed under Part 10 of the EPBC Act in November, 2005. In conducting this assessment, DEWHA considered that actions taken in the fishery would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area over a period of three years while AFMA implemented recommendations to improve the management of the fishery.</p> <p>On 23 December 2005, the PZJA agreed to implement a statutory Management Plan in the TSPF, including a number of new arrangements to promote greater management efficiency. The Management Plan will move management of the TSPF from the existing system of fishing nights, to a new system using effort units and includes management arrangements such as gear restrictions on mesh size and net length, compulsory use of TEDs and BRDs as well as the use of VMS.</p> <p>DEWHA considers that the new Management Plan will not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area for a period of three years while AFMA progresses the implementation on recommendations made to improve the management of the fishery.</p>
(10B) Subsection (10A) does not limit the matters that may be taken	The TSPF was assessed under Part 10 of the EPBC Act in

into account in deciding whether to declare that a fishery is an approved wildlife trade operation for the purposes of this section.	<p>November 2005. In conducting this assessment, DEWHA considered that actions taken in the fishery would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area over a period of three years while AFMA implemented recommendations to improve the management of the fishery.</p> <p>On 23 December 2005, the PZJA agreed to implement a statutory Management Plan in the TSPF, including a number of new arrangements to promote greater management efficiency. The Management Plan moves management of the TSPF from the existing system of fishing nights, to a new system using effort units and includes management arrangements such as gear restrictions on mesh size and net length, compulsory use of TEDs and BRDs as well as the use of VMS.</p> <p>DEWHA considers that the new Management Plan would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area for a period of three years while AFMA progresses the implementation on recommendations made to improve the management of the fishery.</p>
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Section 303FR Public consultation	DEWHA assessment of the TSPF
<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>DEWHA considers that consultation requirements of the EPBC Act for declaring a WTO have been met. A public notice, which set out the proposal to declare the TSPF a WTO and included the submission, was released for public comment which closed on 21 December 2007 with no submissions received.</p>
(2) A period specified in the notice must not be shorter than 20	A public notice, which set out the proposal to declare the TSPF a WTO

business days after the date on which the notice was published on the Internet.	and included the submission was released for public comment on 22 November 2007 and closed on 21 December 2007, a total of 22 business days.
(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.	No public comments about the proposal were received.

Section 303FT Additional provisions relating to declarations	DEWHA assessment of the TSPF
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	A declaration for the TSPF will be made under section 303FN.
(4) The Minister may make a declaration about a plan or operation even though he or she considers that the plan or operation should be the subject of the declaration only: <ul style="list-style-type: none"> (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of declaration is to specify the period, circumstances or condition.	The standard conditions applied to a commercial fishery WTO include: <ul style="list-style-type: none"> • operation in accordance with the management regime; • notifying DEWHA of changes to the management regime; and • annual reporting in accordance with the requirements of the Australian Government <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i>. The WTO instrument for the TSPF specifies the standard and any additional conditions applied.
(8) A condition may relate to reporting or monitoring.	One of the standard conditions relates to reporting.
(9) The Minister must, by instrument published in the <i>Gazette</i> , revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.	
(11) A copy of an instrument under section 303FN, or this section is to be made available for inspection on the Internet.	The instrument for the TSPF made under sections 303FN and the conditions under section 303FT will be gazetted and made available on the DEWHA website.

Part 16

Section 391 Minister must consider precautionary principle in making decisions	DEWHA assessment of the TSPF
(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and/or section 303FN, to the	The precautionary principle must be considered when making a decision to include specimens on the LENS.

extent he or she can do so consistently with the other provisions of this Act.	DEWHA considers that the management arrangements for the TSPF, including the Management Plan have been developed with regard to the precautionary principle.
(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 conditions and recommendations to the PZJA for the TSPF

The material submitted by the PZJA demonstrates that the management arrangements for the TSPF meet most of the requirements of the Australian Government's *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*.

The TSPF is managed under the Management Plan, in force under the TSF Act and TSF Regulations. Management is via an effort-based system, with a TAE for each season, distributed via effort units nominated to transferable fishing licenses. Additional management tools include spatial restrictions, temporal closures, gear restrictions, and size limits (for byproduct species). DEWHA considers that the overall management regime aims to ensure that fishing is conducted in a manner that does not lead to overfishing and for fishing operations to be managed to minimise their impact on the structure, productivity, function and biodiversity of the ecosystem.

Despite the management arrangements in place in the TSPF, DEWHA has identified a number of risks and uncertainties that must be managed to ensure that impacts are minimised:

- a need to better understand the dynamics of target prawn stocks and to ensure that the level of effort in the fishery is set at a level which will make certain the ongoing sustainability of these stocks;
- a need to ensure the current observer program is statistically robust to validate logbook data and provide fishery-independent catch and effort information;
- using current knowledge of the Torres Strait region, spatial restrictions around key areas of ecological concern need to be further considered;
- bycatch in the fishery remains a high proportion of the total catch; and
- BRDs and/or TEDs are not currently required on try nets which appears inconsistent with the Australian Government's Recovery Plan for Marine Turtles in Australia.

DEWHA is satisfied that the TSPF will not be detrimental to the survival or conservation status of the taxa to which it relates in the short to medium term. Similarly, it is not likely to threaten any relevant ecosystem in the short to medium term. To contain and minimise the risks in the longer term a number of recommendations have been made. The immediate key challenges for this fishery are to: complete regular stock assessments for key target prawn stocks (brown tiger prawns and blue endeavour prawns) and use this information along with other scientific advice, as available, to determine a Harvest Strategy for the fishery, including setting the TAE at a sustainable level; complete a Harvest Strategy for target and byproduct species based on stock assessments and scientific advice; and complete the ERA for the TSPF and use this information in determining management arrangements.

DEWHA considers that until it can be demonstrated that these issues have been adequately dealt with, a three year WTO declaration is appropriate.

In light of new management arrangements coming into force, there is also a need to re-accredit the TSPF under Parts 10 and 13 of the EPBC Act.

DEWHA considers that the operation of the TSPF 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. The Management Plan has recently been developed to formalise the management arrangements for the TSPF.

Given the Management Plan and legislation in force in the Torres Strait, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of any listed or threatened species in the TSPF. DEWHA therefore believes it appropriate to accredit the management regime for the fishery under Part 13 of the EPBC Act.

Unless a specific time frame is provided in the recommendation each recommendation must be addressed within the life of the declaration (three years). Note that a standard condition of a WTO is an annual reporting requirement, the details of which are provided below.

Table 4: TSPF Assessment – Summary of Issues, Conditions and Recommendations July, 2008

	Issue	Condition
1	<p>General Management</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 byproduct, bycatch, protected species or the ecosystem.</p>	<p>Condition 1: Operation of the fishery will be carried out in accordance with the Management Plan under the TSF Act and TSF Regulations.</p> <p>Condition 2: The PZJA to inform DEWHA of any intended amendments to the management arrangements that may affect the assessment of the TSPF against the criteria on which EPBC Act decisions are based.</p>
2	<p>Annual reporting</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 accreditation of the fishery (for a complete description of annual reporting requirements, see Appendix B of the Guidelines available from the DEWHA website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html).</p>	<p>Condition 3: The PZJA 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>

	Issue	Recommendation
3	<p>Target species</p> <p>In 2006 a stock assessment for brown tiger prawns was completed, and this is currently being updated using recent data. A stock assessment for blue endeavour prawns is underway and is scheduled for completion during 2008. DEWHA considers that the PZJA should use the results of these stock assessments, along with a harvest strategy to determine the TAE for the TSPF. The harvest strategy for the TSPF should, where possible, be consistent with the <i>Commonwealth Fisheries Harvest Strategy Policy</i>.</p> <p>Performance measures</p> <p>As part of the development of the Management Plan, the PZJA has determined measures and performance criteria for the fishery. There remains a requirement to produce a harvest strategy for the TSPF. In the Draft TSPF Management Plan, the development of a harvest strategy, including biological reference points for key species, has been proposed for completion by mid-2009. Also in the Management Plan is an undertaking that the PZJA will develop a clear process for determining performance measure triggers and for implementing appropriate management measures within specific timeframes. DEWHA considers that these developments will be important for the long-term sustainability of the TSPF and should be a priority for the PZJA.</p> <p>Effort management in the fishery</p> <p>Effort creep will keep putting upward pressure on effective effort and therefore force down the estimate of Maximum Sustainable Effort. The number of days available for fishing (TAE) should continue to be reviewed on an annual basis in light of changing fishing practices in the TSPF and in light of additional stock assessment advice.</p>	<p>Recommendation 1: Within 12 months, the PZJA to develop a harvest strategy for the fishery that:</p> <ul style="list-style-type: none"> • includes a clear process for implementing appropriate management responses within specific timeframes in the event of a performance measure being triggered; • sets the TAE at a level which will not result in higher than sustainable catches of key target and byproduct species; and • is based on information gained through: stock assessments; scientific advice; analysis of changing fishing practices; and the results of the ERA for the TSPF.
4	<p>Bycatch</p> <p>Bycatch in the TSPF is highly diverse with over 260 species caught. The species assemblage is dominated by bony fish, at an average of 78% by weight of total landings. An assessment of the relative sustainability of the fish bycatch was undertaken by</p>	<p>Recommendation 2: PZJA to continue to pursue a reduction in the composition and volume of bycatch taken in the TSPF through:</p>

	<p>examining the susceptibility of species to capture and mortality due to trawling and the ability of a population to recover once depleted. Species that are more susceptible to impact in the TSPZ are those that have benthic or demersal habitat preferences with large portions of their distribution in the TSPF trawl grounds. Poor taxonomic resolution of invertebrate species caught in the TSPF is thought to mask some diversity. Recently, new devices to reduce bycatch have been implemented in the TSPF when found to be effective in similar Australian prawn trawl fisheries. DEWHA encourages such initiatives to reduce bycatch in the fishery and considers that the pursuit of such reductions should be an ongoing recommendation for the TSPF.</p> <p>BRDs are required on all fishing nets except try nets (nets no longer than 10 metres, used for shots of up to 25 minutes, for the purposes of sampling or testing or to work out the abundance or presence of prawn) in the TSPF. DEWHA recommends that in the interests of pursuing continued reductions in bycatch in the fishery, the PZJA should consider whether BRDs should be required on try nets used in the TSPF.</p>	<ul style="list-style-type: none"> • refining bycatch mitigation technology; • investigating and implementing methods for increasing the survivability of bycatch species; and • investigating and then mitigating any found impacts of not using BRDs on try nets.
5	<p>Protected Species Interactions</p> <p>The TSPF is known to interact with a number of species listed under the EPBC Act, including marine turtles, seasnakes and syngnathids. The capture of protected species of sawfishes (within the family Pristidae) may also be of concern, given the vulnerability of these species to trawl gear.</p> <p>The western area of the TSPZ (Kerr Island, Deliverance Island and Turu Cay), which is now closed to the TSPF although historically not heavily fished, represent significant nesting sites for turtles. The area of waters to 3 nm from these three islands is under Australian jurisdiction. Surrounding this group of islands, PNG has jurisdiction over seagrass beds which are important feeding areas for dugong. DEWHA considers that the PZJA should consider protecting important nesting and feeding grounds of sea turtles within the TSPZ, and promote the importance of such measures to other jurisdictions with which stocks are shared.</p>	<p>Recommendation 3: PZJA continue to mitigate protected species interactions through:</p> <ul style="list-style-type: none"> • promoting research into the impacts of the TSPF on protected species, and in particular, on protected species within the family Pristidae; • protecting important nesting and feeding grounds of sea turtles from the impacts of trawling through spatial restrictions; • promoting to other jurisdictions the importance of protecting important feeding and nesting sites of protected species; and • investigating and then mitigating any found

	<p>TEDs are required on all nets except try nets in the TSPF. Try nets are nets of up to 10 metres, trawled for no longer than 25 minutes at a time. DEWHA notes that even short trawls such as these may result in interactions with marine turtles, and considers that the PZJA should determine the potential impacts of trawling with nets which are not fitted with TEDs. If it is found that try nets may result in a risk to marine turtles, TEDs should be required.</p>	<p>impacts of not using TEDs on try nets.</p>
6	<p>Spatial management arrangements</p> <p>The TSPF already has in place a number of spatial closures and seasonal closures. Recent scientific studies are likely to add value to the closures already in place by assisting in the identification of the ecosystems and types of bycatch most likely to be at risk from trawling. Any information available to the PZJA on species and populations at high risk from trawling; important areas for target, byproduct and protected species; and benthic habitats at risk should be considered in determining spatial management arrangements for the fishery.</p>	<p>Recommendation 4: PZJA to continue to refine spatial management arrangements within the TSPF that takes account of the impacts of fishing on:</p> <ul style="list-style-type: none"> • species and populations identified by the ERA process as high risk; • important feeding, spawning, breeding, and refuge grounds for key target, byproduct, bycatch and protected species; and • benthic habitats. <p>In developing and implementing the spatial management system, the PZJA to consider regional marine planning processes for Northern Australia, outcomes of the ERA of the TSPF, and other scientific advice.</p>
7	<p>Data validation and fishery-independent data collection</p> <p>An observer program has been implemented in the TSPF to validate catch of target and byproduct species. DEWHA considers that in order to be effective, the observer program needs to be determined to be statistically robust and capable of validating effort and catch data (for target, byproduct and bycatch), as well as validating protected</p>	<p>Recommendation 5: PZJA to develop and implement an ongoing, robust system to validate:</p> <ul style="list-style-type: none"> • catch and effort data (for target, byproduct and bycatch);

	species interactions and impacts on the marine ecosystem.	<ul style="list-style-type: none"> • protected species interactions; and • impacts on the marine ecosystem.
8	<p>Compliance with management arrangements</p> <p>A recommendation of the 2005 Assessment was for the PZJA to develop within one year, a strategy and timeframes for implementing any resultant recommendations arising from the formal compliance risk assessment.</p> <p>Although limited action has been taken against this recommendation across all Torres Strait fisheries, DEWHA considers that following the implementation of the TSPF Management Plan a fishery specific compliance risk assessment should be undertaken.</p>	<p>Recommendation 6: PZJA to undertake a Compliance Risk Assessment of the TSPF and implement mechanisms to address high risk issues. In the interim, the PZJA to continue to manage known compliance risks in the Torres Strait region.</p>
9	<p>Collaboration – shared stocks</p> <p>The TSPF shares prawn stocks with the TS PNG prawn fishery (managed by the PNG National Fisheries Authority).</p> <p>Recommendation 7 from the 2005 DEH Assessment Report of the TSPF required “PZJA to continue to cooperate with other relevant jurisdictions to pursue complementary management and research of shared stocks for all target, byproduct and bycatch species, which may be affected by cross-jurisdictional issues”.</p> <p>The PZJA has continued to promote complementary management arrangements, primarily through bilateral fisheries meetings with PNG. DEWHA recognises the efforts of the PZJA in collaborating with other jurisdictions and encourages continued cooperation to enable complementary management of shared stocks.</p>	<p>Recommendation 7: PZJA to continue to cooperate with other relevant jurisdictions to pursue complementary management and research of shared stocks for all target, byproduct and bycatch species, which may be affected by cross-jurisdictional issues.</p>

References

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Acronyms

AFMA	Australian Fisheries Management Authority
BRD	Bycatch Reduction Devices
BRS	Bureau of Rural Sciences
CITES	Convention of the International Trade of Endangered Species
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEH	Department of the Environment and Heritage (now DEWHA)
DEWHA	Department of Environment, Water, Heritage and the Arts
DPI&F	Department of Primary Industries and Fisheries
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPBC Regulations	Environment and Biodiversity Conservation Regulations 2000
ERA	Ecological Risk Assessment
FJL	Fisheries Jurisdiction Line
FMN	Fisheries Management Notice
GBRWHA	Great Barrier Reef Marine Park World Heritage Area
VMS	Vessel Monitoring Systems
LENS	List of Exempt Native Specimens
MSY	Maximum Sustainable Yield
PNG	Papua New Guinea
PZJA	Protected Zone Joint Authority
TAE	Total Allowable Effort
TED	Turtle Exclusion Devices
TSF Act	<i>Torres Strait Fisheries Act 1984</i>
TSF Regulations	<i>Torres Strait Fisheries Regulations 1995</i>
TSPF	Torres Strait Prawn Fishery
TSPMAC	Torres Strait Prawn Management Advisory Committee
TSPZ	Torres Strait Protected Zone
VMS	Vessel Monitoring System
WTO	Wildlife Trade Operation

