



Australian Government

Department of Sustainability, Environment, Water, Population and Communities

Assessment of the
Torres Strait Prawn Fishery

March 2013

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This document is an assessment carried out by the Department of Sustainability, Environment, Water, Population and Communities of a commercial fishery against the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'. It forms part of the advice provided to the Minister for Sustainability, Environment, Water, Population and Communities on the fishery in relation to decisions under Part 13 and Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for Sustainability, Environment, Water, Population and Communities or the Australian Government.

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Table 1: Summary of the Torres Strait Prawn Fishery

Introduction to Torres Strait Fisheries	<p>The Torres Strait Treaty between Australia and Papua New Guinea (PNG) was ratified in 1985. It requires that the two countries conserve and achieve optimal utilisation of the Torres Strait fisheries and maximise the opportunities for the traditional inhabitants of both countries to participate in the fisheries.</p> <p>The treaty describes the boundaries between Australia and PNG and how the shared sea resources are to be managed. The treaty established the Torres Strait Protected Zone (Figure 1) and the rights of Australia and PNG to share the commercial fisheries of the protected zone.</p> <p>The enacting legislation for the treaty in the area under Australian jurisdiction is the <i>Torres Strait Fisheries Act 1984</i>, which establishes the Torres Strait Protected Zone Joint Authority. Membership of the Protected Zone Joint Authority comprises the Australian Government and Queensland Government ministers responsible for fisheries and the Chair of the Torres Strait Regional Authority.</p> <p>The <i>Torres Strait Fisheries Act 1984</i> provides for the Protected Zone Joint Authority to make plans or policies for the management of fisheries in the Torres Strait.</p> <p>Two sectors operate within all Torres Strait commercial fisheries:</p> <ul style="list-style-type: none">• Traditional Inhabitant boat licences, which are available to Indigenous or Traditional Inhabitant fishers only, and• Transferable Vessel Holder licences are available to other commercial fishers (non Traditional Inhabitants).
Description of the Torres Strait Prawn Fishery	<p>The Torres Strait Prawn Fishery is a multi-species prawn fishery operating in the eastern part of the Torres Strait. The fishery's operation area is roughly 20% (8,000 km²) of the Torres Strait Protected Zone, in the eastern part of the zone (Figure 1).</p> <p>Most of the trawling activity in the fishery occurs on the continental shelf within 20 to 90 nautical miles of the coastline, in depths of between 18 and 40 metres (Turnbull et al., 2007).</p>

Publicly available information relevant to the fishery	<ul style="list-style-type: none"> • <i>Torres Strait Fisheries Act 1984</i> • Torres Strait Fisheries Regulations 1985 • Torres Strait Prawn Fishery Management Plan 2009 • Fisheries Management Notice 81 - Torres Strait Prawn Fisheries (mandatory use of turtle excluder devices) • Fisheries Management Notice 47 - Torres Strait Fisheries (restrictions on the size of boats) • Australian Bureau of Agricultural and Resource Economics and Sciences – Fishery Status Reports 2011 • Australian Bureau of Agricultural and Resource Economics and Sciences – Fishery Status Reports 2010 • Australian Bureau of Agricultural and Resource Economics – Bureau of Rural Sciences – Fishery Status Reports 2009 • Bureau of Rural Sciences – Australian Bureau of Agricultural and Resource Economics – Fishery Status Reports 2008 • Australian Fisheries Management Authority (AFMA) – Harvest Strategy for the Torres Strait Prawn Fishery 2011 (Torres Strait Prawn Fishery Harvest Strategy 2011) • Australian Fisheries Management Authority (AFMA) – Draft Fishery Assessment Report, Torres Strait Prawn Fishery, November 2007 • Stock Assessment of the Torres Strait Tiger Prawn Fishery (<i>Penaeus esculentus</i>) 2006 • Department of the Environment, Water, Heritage and the Arts – Assessment of the Torres Strait Prawn Fishery, February 2009 • Department of the Environment and Heritage – Assessment of the Torres Strait Prawn Fishery, November 2005 • Protected Zone Joint Authority – Torres Strait Prawn Fishery Handbook 2012 • Protected Zone Joint Authority – Torres Strait Prawn Fishery Handbook 2011
Target Species	<p>The key target species are:</p> <ul style="list-style-type: none"> • Brown tiger prawn (<i>Penaeus esculentus</i>) • Blue endeavour prawn (<i>Metapenaeus endeavouri</i>) <p>Redspot king prawn was considered a target species in the fishery's stock assessments until 2009. At that time, the species was assessed as not overfished and not subject to overfishing. Catch of this species has declined in recent years, but this decline is considered to be a result of the lower fishing effort and fishers targeting their operations in areas with low abundance of redspot king prawn. Hence, the species is now classified as byproduct by the Protected Zone Joint Authority (Flood et al., 2011).</p> <p>Prawn species typically mature at six months and fecundity increases with age. A female prawn can produce hundreds of thousands of eggs at a single spawning and may spawn more than once in a season. Seagrass habitats in the Torres Strait are mostly located on coral reef platforms such as the Warrior Reef complex. As the juvenile prawns grow, they migrate from seagrass areas into the deeper waters surrounding the reefs and, after one to three months, recruit into fishing grounds as sub-adult and adult prawns.</p>

Target Species (cont...)	<p>Brown tiger and endeavour prawns migrate relatively short distances (about 60 nautical miles). The stocks harvested in the Torres Strait Prawn Fishery are considered functionally independent of the stocks in the Queensland East Coast Otter Trawl Fishery and the Commonwealth Northern Prawn Fishery.</p> <p>Further details on the biology of prawns in the Torres Strait can be found in the 2005 Department of the Environment and Heritage assessment of the fishery, found at: http://www.environment.gov.au/coasts/fisheries/commonwealth/torres-strait-prawn/index.html</p>
Byproduct Species	<p>Redspot king prawn (<i>Melicertus longistylus</i>) is the primary byproduct species.</p> <p>Other byproduct species include cuttlefish (Family Sepiidae), slipper and shovel-nosed lobsters (Family Scyllaridae), Moreton Bay bugs (<i>Thenus</i> sp.) and squid (Order Teuthoidea) (Flood et al., 2011).</p>
Fishery status	<p>The stock status of Torres Strait Prawn Fishery stocks are reported in the 2011 fishery status report (Flood et al., 2011) as:</p> <ul style="list-style-type: none"> • brown tiger prawn (<i>Penaeus esculentus</i>) – not overfished, not subject to overfishing, and • blue endeavour prawn (<i>Metapenaeus endeavouri</i>) – not overfished, not subject to overfishing.
Gear	<p>Fishing is conducted using otter trawl (quad gear), which involves towing four trawl nets that each use rectangular otter boards to keep the mouth of the trawl net open. The arrangement divides the nets into two pairs, with each pair towed from a boom on either side of the vessel.</p> <p>The trawl gear is towed over suitable habitat at an average speed of three knots for a 'shot' period of between two and a half to four hours. Trawling only takes place at night, and fishers generally get through three to four shots per night (Turnbull et al., 2007).</p> <p>The Torres Strait Prawn Fishery has restrictions on net length and boat size. There is a mandatory requirement for all trawl nets (except try nets – smaller sample nets sometimes deployed for short periods to estimate the abundance of prawns) to be fitted with an approved turtle excluder device (TED) and bycatch reduction device (BRD). For further details on gear restrictions and requirements see Fisheries Management Notices 47, 71, 81 and 82.</p>
Season	1 March to 31 December (Woodhams et al., 2012).

Commercial harvest	Since the 2009 reassessment, harvest in tonnes is given below (Woodhams et al., 2010; Flood et al., 2011; Woodhams et al., 2012):				
		2008	2009	2010	2011
	Tiger prawn	472	348	340	200
	Endeavour prawn	420	178	108	72.4
	Byproduct/redspot king prawn	48	33	28	20.6
	Effort ¹	3479	2165	1857	1148
Value of commercial harvest	Since the 2009 reassessment, the real value of the commercial harvest (\$ million) is given below (Woodhams et al., 2010; Flood et al., 2011; Woodhams et al., 2012):				
		2008	2009	2010	2011
	Tiger prawn	\$6.8	\$4.6	\$2.9	\$2.84
	Endeavour prawn	\$2.8	\$1.3	\$0.6	\$0.53
	Byproduct/redspot king prawn	\$0.5	\$0.6	\$0.4	\$0.43
Take by other sectors	The prawn stocks within this fishery are straddling stocks between PNG and Australian waters. There has been no fishing activity undertaken by PNG operators in recent years in either PNG or Australian waters (Flood et al., 2011).				
Commercial licences issued	There is a limit of 61 Australian licences in the Torres Strait Prawn Fishery. Since 2009, only between three and twelve of the 61 licences have been actively fishing each year.				
Management arrangements	<p>The fishery will be managed by the Protected Zone Joint Authority under the Torres Strait Prawn Fishery Management Plan 2009, in force under the <i>Torres Strait Fisheries Act 1984</i> and the Torres Strait Fisheries Regulations 1985, and Fisheries Management Notices.</p> <p>Key management arrangements for the fishery include:</p> <ul style="list-style-type: none">• limited entry• total allowable effort (TAE) in fishing days• spatial and seasonal closures• gear restrictions, such as the net length is not to exceed 88 metres• mandatory use of TEDs and BRDs, and• maximum vessel length of 20 metres. <p>In 2011, the ‘Harvest Strategy for the Torres Strait Prawn Fishery 2011’ was implemented and provides reference points for target and byproduct species.</p>				
Export	The majority of export is to the United States, Japan and Europe.				

¹ Effort is measured in days/nights. This is because licences are allocated fishing 'days' to operate in the fishery, whereas the actual fishing activity occurs at night.

Bycatch and protected species² interactions	<p>Due to the nature of trawling and the use of small mesh size, the Torres Strait Prawn Fishery interacts with a diverse range of species (greater than 380 species). The retained weight of bycatch is on average between three and four times the weight of the commercial prawn catch (Turnbull et al., 2007).</p> <p>Proportionally, bony fish represent the largest group (in catch weight) of bycatch. Approximately 52 – 69 per cent of the total catch is bony fish, eight per cent are crabs, three per cent are scallops and one to three per cent are various species of sharks and rays. Another one per cent comprises of squid, tropical rock lobster, Moreton bay bug, sponges and turtles and 0.1 – 0.2 per cent comprises of sea snakes (AFMA, 2005).</p> <p>The majority of protected species interactions in the Torres Strait Prawn Fishery are with sea snakes. In 2011, 1165 sea snake interactions were reported. Of these, 740 were reported to have been released alive, 29 dead, and the remainder had an 'unknown' life status.</p> <p>Other protected species groups which have reported interactions in the fishery are turtles, syngnathids (seahorse), dugongs and sawfish.</p> <p>For example, in the first three quarters of 2012 four interactions were reported with green turtles (<i>Chelonia mydas</i>) and one interaction with an 'unclassified' turtle. All five animals were reported to be released alive. There were also 69 interactions with syngnathids which were reported to have died. No interactions with dugong were reported in 2010.</p> <p>The use of TEDs and BRDs in trawl nets is compulsory in the fishery with the exception of 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 prawns).</p>
Ecosystem Impacts	<p>Prawn trawling is a relatively non-selective method of fishing. Trawling has the potential to have an effect on the ecosystem, by impacting target, byproduct and bycatch species it catches, in addition to impacting the benthic environment in which it operates.</p> <p>A report documenting the results of fishery independent research surveys was conducted between 2004 and 2006. The fishery independent trawl surveys sampled areas open and closed to trawling and concluded that there were no major differences in the types of bycatch species between trawled areas and closed areas in the Torres Strait Prawn Fishery. However, there was some difference in the relative proportions of different bycatch species between trawled and closed areas (Turnbull & Rose, 2007).</p> <p>A seabed habitat mapping study of the Torres Strait examined the likely extent of past effects of trawling on the benthic environment. It indicated that trawling only had a significant effect on the biomass of a small proportion (21 species) of the 256 species analysed (Pitcher et al., 2007).</p>

² 'Protected species' means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and threatened, marine and migratory species.

Impacts on World Heritage property/Great Barrier Reef Marine Park	<p>The assessment also considered the possible impacts of the Torres Strait Prawn Fishery on the World Heritage values of the Great Barrier Reef World Heritage Area and on the Great Barrier Reef Marine Park, which are located to the south east of the area of the fishery's operation.</p> <p>The area of operation of the fishery does not include the Great Barrier Reef World Heritage Area or the Great Barrier Reef Marine Park, and there are ongoing developments in management measures for the fishery to reduce the impacts of prawn trawling on the seabed and bycatch. On this basis, the department considers that an action taken by an individual fisher, acting in accordance with the Torres Strait Prawn Fishery Management Plan 2009 in force under the <i>Torres Strait Fisheries Act 1984</i> would not be expected to have a significant impact on the Great Barrier Reef Marine Park or the World Heritage values of the Great Barrier Reef World Heritage Area.</p>
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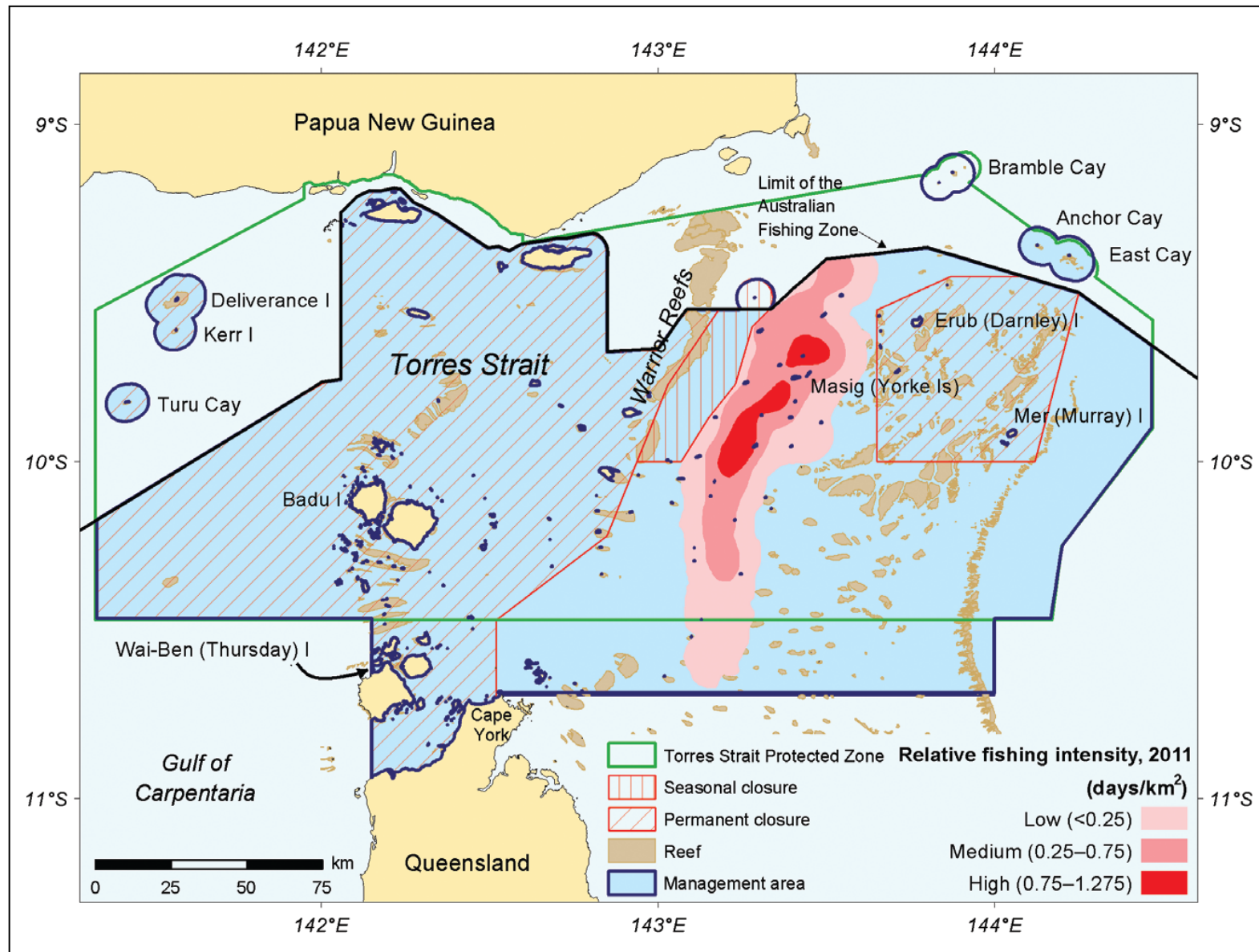


Figure 1: Area of operation of the Torres Strait Prawn Fishery. Source: ABARES Fishery Status Reports 2011.

Table 2: Progress in implementation of conditions and recommendations made in the 2009 reassessment of the Torres Strait Prawn Fishery

Condition	Progress	Recommended Action
<p>1. Operation of the fishery will be carried out in accordance with the Torres Strait Prawn Fishery Management Plan 2009 in force under the <i>Torres Strait Fisheries Act 1984</i> and Torres Strait Fisheries Regulations 1985.</p>	<p>The fishery has operated in accordance with the Torres Strait Prawn Fishery Management Plan 2009 in force under the <i>Torres Strait Fisheries Act 1984</i>, and the Torres Strait Fisheries Regulations 1985 over the course of the previous export approval.</p>	<p>The Department of Sustainability, Environment, Water, Population and Communities (the department) considers that this condition has been met. The department recommends that a new approved wildlife trade operation declaration for the Torres Strait Prawn Fishery specify a similar condition (Condition 1, Table 4).</p>
<p>2. The Protected Zone Joint Authority (PZJA) to inform the Department of the Environment, Water, Heritage and the Arts (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>	<p>Three major changes have been made since the 2009 assessment of the fishery. All three changes were introduced between May and September 2011. The changes are:</p> <ol style="list-style-type: none"> 1. Five Fisheries Management Instruments (FMIs) were implemented in May 2011. 2. The implementation of a harvest strategy for the fishery in July 2011. 3. Formal licence leasing arrangements introduced in September 2011. <p>The department was advised of these changes in the Protected Zone Joint Authority's (PZJA) application in late 2011.</p> <p>The department has not received any advice from the PZJA advising of any other changes to management arrangements, additional to examples listed above, since the 2009 assessment of the fishery.</p>	<p>The department considers that this condition is ongoing. The department recommends that a new approved wildlife trade operation declaration for the Torres Strait Prawn Fishery specify a similar condition (Condition 2, Table 4).</p>

Condition	Progress	Recommended Action
<p>3. The PZJA to produce and present reports to DEWHA annually as per Appendix B to the 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'.</p>	<p>Since the 2009 assessment of the fishery, annual status reports have been provided for the 2009 and 2010 seasons. The available dataset for 2011 catch was provided in the Protected Zone Joint Authority's application, noting that it was not a full dataset for the season, as the application was sent to the department in November 2011 before the completion of the 2011 fishing season.</p>	<p>The department considers that this condition has been met. The department recommends that a new approved wildlife trade operation declaration for the Torres Strait Prawn Fishery specify a similar condition (Condition 3, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>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 Total Allowable Effort 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 Ecological Risk Assessment for the TSPF. 	<p>The Australian Fisheries Management Authority, on behalf of the Protected Zone Joint Authority, finalised the development of the Torres Strait Prawn Fishery Harvest Strategy 2011 (the harvest strategy) in July 2010 and implemented it in July 2011.</p> <p>The harvest strategy outlines the two trigger points below:</p> <ol style="list-style-type: none"> <i>If any one of the trigger points below is reached within the Australian area of jurisdiction each year over two (2) consecutive years:</i> <ul style="list-style-type: none"> <i>If ≥ 4000 days of Total Allowable Effort (TAE) has been utilised in a season; and/or</i> <i>If ≥ 680 tonnes of Tiger prawns has been caught in a season; and/or</i> <i>If ≥ 620 tonnes of Endeavour prawns has been caught in a season.</i> <i>If total effort within the PNG area of jurisdiction reaches 720 days and/or reach 122 tonnes of Tiger prawns and/or reach 118 tonnes of Endeavour prawns.</i> <p>If either of the above trigger points are reached, the harvest strategy specifies management responses (referred to within as decision rules), which include a commitment to:</p> <ul style="list-style-type: none"> commence the identification of research requirements including the updating of the stock assessment and bio-economic modelling reconvene the Harvest Strategy Working Group to oversee research and further development of the harvest strategy estimate biomass at maximum economic yield (B_{MEY}) using results obtained from both updated and historical research data, and revisit target reference and trigger points to develop decision rules for the setting of TAE based on B_{MEY} and taking into 	<p>The department considers that this recommendation has been met.</p> <p>The department considers that the harvest strategy now details a clear process for implementing appropriate management responses over a clear timeframe once a trigger point is reached. The harvest strategy allows for the setting of total allowable effort (TAE) at a level which the department considers will not result in higher than sustainable catches for target and byproduct species.</p> <p>The department also notes that the harvest strategy is based on information gained through stock assessments, scientific advice, analysis of changing fishing practices, and the results of the Level 1 Ecological Risk Assessment for the fishery.</p>

Recommendation	Progress	Recommended Action
1. (cont...)	<p>consideration the revised and updated research outputs, the current status of the fishery and social environment in which the fishery operates.</p> <p>The harvest strategy details the rationale behind the development of these decision rules. It notes that while the short term target for the fishery is biomass at maximum sustainable yield (B_{MSY}), the triggers were based with the aim of achieving biomass at maximum economic yield (B_{MEY}) as the long term target for the fishery.</p> <p>The harvest strategy was developed using information contained in:</p> <ul style="list-style-type: none"> • the tiger prawn stock assessment undertaken in 2004 (updated in 2006 using logbook data) • logbooks with records of catch and effort data • the Vessel Monitoring System (VMS) records administered by Fisheries Queensland • observer data (set at 2.6 per cent of seasonal effort usage), and • fishery independent surveys conducted by Fisheries Queensland until 2009. <p>Additionally, the harvest strategy is designed to incorporate results of the Ecological Risk Assessment for the Effects of Fishing (ERAEF) hierarchical framework for the Torres Strait Prawn Fishery, noting that only a qualitative assessment of risks has been undertaken to date.</p> <p>The harvest strategy recognises the need for an updated stock assessment in the future to determine a more accurate value of prawn biomass. The harvest strategy is designed to instigate new research initiatives once triggers are met.</p>	

Recommendation	Progress	Recommended Action
<p>2. PZJA to continue to pursue a reduction in the composition and volume of bycatch taken in the TSPF through:</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 Bycatch Reduction Devices on Try Nets. 	<p>The department notes that the volume of bycatch taken in the Torres Strait Prawn Fishery has declined in recent years. It is likely that this is due to the current low level of fishing effort compared to the levels of effort experienced in the fishery in the late 1990s and early 2000s.</p> <p>Because of the low level of effort in the fishery, the Protected Zone Joint Authority has delayed investigations into refining bycatch mitigation technology, but will monitor developments in other similar fisheries for potential use in the Torres Strait Prawn Fishery.</p> <p>Similarly, there has been limited progress in investigating and implementing methods for increasing the survivability of bycatch. Due to the current low effort, the Protected Zone Joint Authority has found it difficult to justify research into new methods, and considers it more appropriate to monitor the larger prawn fisheries of the Queensland East Coast Otter Trawl Fishery and the Northern Prawn Fishery for progress on this matter.</p> <p>The Protected Zone Joint Authority's application conveys the intent to collect greater information through the fishery's scientific observer program on the species composition of bycatch in try nets. The Australian Fisheries Management Authority has advised that it is not practical to install TEDs or BRDs in try nets due to the shorter net length and that bycatch and protected species interactions in try nets are considered negligible due to the reduced net size and shorter shots. The department considers that try nets used in the Torres Strait Prawn Fishery pose a very low risk to the environmental sustainability of the fishery and on this basis no further actions addressing the impacts of try nets are recommended at this time.</p>	<p>The department considers that this recommendation is ongoing.</p> <p>The department acknowledges that progress has been delayed, given relatively low levels of effort in the fishery in recent years. However, the department considers that bycatch mitigation is an important issue for prawn trawl fisheries, including the Torres Strait Prawn Fishery.</p> <p>Hence, the department has proposed a modified recommendation to better clarify the issues it considers important for ensuring the fishery is managed in an ecologically sustainable manner (see Recommendation 2, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>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 (sawfishes); • 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 impacts of not using Turtle Exclusion Devices on Try Nets. 	<p>The Australian Fisheries Management Authority's quarterly protected species reports indicate that there were 1,165 interactions with protected species recorded in the Torres Strait Prawn Fishery in 2011 (all with sea snakes). Preliminary reports for the first two quarters of 2012 indicate that 944 protected species interactions occurred in this period (reports for the last two quarters of 2012 have not been finalised at the time of writing). Of these interactions, 869 were with sea snakes (387 released alive, four dead and the remainder unknown), five turtles (all released alive), one narrow sawfish (released alive) and 69 syngnathids (dead).</p> <p>Three sawfish interactions were reported in the fishery during the 2008 season. The 2007 ecological risk assessment considered that sawfish are caught more rarely in this fishery than the adjacent Northern Prawn Fishery (Turnbull et al., 2007). It also suggested that it is likely that large sawfish and other large shark and ray species are excluded from trawl nets by the mandatory turtle excluder devices (TEDs) (Turnbull et al., 2007).</p> <p>In May 2008, the Protected Zone Joint Authority implemented exclusion zones around Deliverance Island, Kerr Islet and Turu Cay to protect important nesting areas for the EPBC listed threatened species, green and flatback turtles. These closures also provide protection for important breeding and feeding habitat for dugong which are also EPBC listed marine and migratory species. In May 2011, additional protection was implemented via five Fisheries Management Instruments (no's. 1 – 5) that strengthen the protections introduced in May 2008. These changes to management arrangements enforce a permanent prohibition on the taking, processing or carrying of prawn in these areas. The Protected Zone Joint Authority advises that it takes an active approach to promoting the importance of these closures by maintaining communication with the Papua New Guinea Minister for Fisheries and Marine Resources when changes to management arrangement occur.</p> <p>The Protected Zone Joint Authority has indicated that it intends to collect further information on protected species that are caught in try nets using the Scientific Observer Program.</p>	<p>The department considers that this recommendation has been partially met. The department recognises the significant protection afforded to sea turtles in the Torres Strait region by the closures surrounding Deliverance Island, Kerr Islet and Turu Cay.</p> <p>However, the department considers that risks remain to smaller individuals of shark and ray species, including protected species of sawfish, being caught as bycatch. Thus, the department has recommended that further information be collected, relevant risk assessments be undertaken and appropriate management measures be implemented if trigger points are reached to ensure the impacts on species identified at risk are minimised (see Recommendation 2, Table 4)</p>

Recommendation	Progress	Recommended Action
<p>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 ecological risk assessment 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 Ecological Risk Assessment of the TSPF, and other scientific advice.</p>	<p>The Protected Zone Joint Authority advises that since the 2009 reassessment, there has been refinement to the closures surrounding Deliverance Island, Kerr Islet and Turu Cay by the introduction of five Fisheries Management Instruments which prohibit the carrying or processing of prawn in these areas. These new management arrangements were implemented in May 2011.</p> <p>However, the department considers that there has been limited development in progressing the Ecological Risk Assessment for the Effects of Fishing (ERAEF) hierarchical framework, thus limiting the accuracy of risk identification that could be used to inform prospective refinements to the fishery's management arrangements as a whole. In 2007, results were released for a Level 1 (Scale, Intensity, Consequence Analysis [SICA]) ecological risk assessment of the Torres Strait Prawn Fishery. The assessment covered a total of 612 species. Various components of target, byproduct, discard and protected species were all found to be at moderate or greater risk to the impacts of commercial fishing in the fishery.</p> <p>The Protected Zone Joint Authority has indicated that it intends to consider the outcomes of the Marine Bioregional Planning in adjacent regions when developing future spatial management arrangements. The Marine Bioregional Plan for the North Marine Region was finalised in 2012 and the Australian Fisheries Management Authority has advised that it intends to refine spatial management arrangements in the near future with consideration to this plan.</p>	<p>The department considers that this recommendation has been partially met. The department considers that there has been refinement of spatial management arrangements based on the scientific information available to managers.</p> <p>The department considers the incorporation of information from risk assessments, such as the ecological risk assessment process, as crucial to informing future refinement of all types of management arrangements in the fishery, not just spatial. Currently, only a qualitative risk assessment (Level 1) has been undertaken to date, and there have been no quantitative risk assessments (Level 2/Level 3). The department considers that if the ecological risk assessment process progresses further, it will provide important information for ensuring management arrangements in the fishery are ecologically sustainable, noting that low levels of effort in the fishery may restrict progression of the ERAEF at this stage.</p> <p>Thus, the department, as part of a broader recommendation on addressing risk to bycatch species, habitat and ecosystem components, has recommended that the Protected Zone Joint Authority ensure relevant risk assessments of bycatch species are undertaken if appropriate trigger points are reached. As a follow up, the department also recommends that appropriate performance measures and management measures be implemented to ensure the sustainability of components determined to be at risk (see Recommendation 2, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>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); • protected species interactions; and • impacts on the marine ecosystem. 	<p>The Protected Zone Joint Authority has delayed the development and implementation of a validation system for the Torres Strait Prawn Fishery because of the current low levels of fishing effort in the fishery.</p> <p>The Protected Zone Joint Authority's application states that the fishery's Scientific Observer Program and logbook data will continue to be used, by fishery managers, to monitor the effects of fishing on target, byproduct and protected species. However, the department notes the incomplete species differentiation (species specific recording) in logbook reports identified in the Torres Strait Prawn Fishery Handbook 2012 (Cocking et al., 2012).</p>	<p>The department considers that this recommendation is ongoing.</p> <p>While the department recognises that fishing effort has been low in the fishery over recent seasons, it considers that the development and implementation of a catch validation system is important in demonstrating that management arrangements are ecologically sustainable. The department notes the incomplete species differentiation in logbook reports identified in the Torres Strait Prawn Fishery Handbook 2012 (Cocking et al., 2012).</p> <p>The development of robust data will be important for informing future decisions about the fishery's management arrangements. Hence, the department considers that this recommendation for the new approved wildlife trade operation declaration should continue in a modified form (see Recommendation 1, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>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>	<p>The Protected Zone Joint Authority application states that a compliance risk assessment for the Torres Strait Prawn Fishery was undertaken by the Australian Fisheries Management Authority and Fisheries Queensland in 2005. Fisheries Queensland reviewed the compliance risk assessment in May 2008. These assessments involved compliance staff from Fisheries Queensland identifying and assessing the perceived compliance risks for the fishery.</p> <p>The application indicates that since the 2009 reassessment of the fishery under the EPBC Act, the risks identified in 2005 and 2008 have been incorporated into the Queensland Fisheries Compliance Plan.</p>	<p>The department considers that this recommendation has been met.</p>
<p>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>	<p>The Torres Strait Prawn Fishery Harvest Strategy 2011 specifies that management arrangements for the fishery are developed in consultation with the Protected Zone Joint Authority agencies, including:</p> <ul style="list-style-type: none"> • the Australian Fisheries Management Authority • Fisheries Queensland (which is an agency of the Queensland Department of Agriculture, Fisheries and Forestry) • the Torres Strait Regional Authority • the Commonwealth Department of Agriculture, Fisheries and Forestry, and • the Papua New Guinea National Fisheries Authority (PNG NFA). <p>The PNG NFA has a permanent observer status on the Torres Strait Prawn Management Advisory Committee. The PNG NFA is also a member of the Torres Strait Scientific Advisory Committee.</p>	<p>The department considers that this recommendation has been met.</p>

Table 3: The Department of Sustainability, Environment, Water, Population and Communities' assessment of the Torres Strait Prawn Fishery against the requirements of the EPBC Act related to decisions made under Part 13 and Part 13A.

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

Part 13

Division 1 Listed threatened species Section 208A Minister may accredit plans or regimes	The department's assessment of the Torres Strait Prawn Fishery
<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 Torres Strait Prawn Fishery will be managed under the Torres Strait Prawn Fishery Management Plan 2009, in force under the <i>Torres Strait Fisheries Act 1984</i>.</p> <p>The Torres Strait Prawn Fishery Management Plan 2009 was accredited under section 208A of the EPBC Act in February 2009. The department acknowledges that the licence conditions of the management plan require fishers to take all reasonable steps to ensure that listed threatened species are not killed or injured as a result of the fishing.</p> <p>Given the mandatory requirement for all trawl nets, except try nets, to be fitted with a turtle excluder device (TED) and a bycatch reduction device (BRD), the risk of killing or injuring large numbers of listed threatened species, such as marine turtles, is reduced. Therefore, the department considers that the current operation of the fishery under the management plan is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>

Part 13 (cont.)

Division 2 Migratory species Section 222A Minister may accredit plans or regimes	The department's assessment of the Torres Strait Prawn Fishery
<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 Torres Strait Prawn Fishery will be managed under the Torres Strait Prawn Fishery Management Plan 2009, in force under the <i>Torres Strait Fisheries Act 1984</i>.</p> <p>The Torres Strait Prawn Fishery Management Plan 2009 was accredited under section 222A of the EPBC Act in February 2009. The department acknowledges that the licence conditions of the management plan require fishers to take all reasonable steps to ensure that listed migratory species are not killed or injured as a result of the fishing.</p> <p>Given the mandatory requirement for all trawl nets, except try nets, to be fitted with a TED and a BRD, the risk of killing or injuring large numbers of listed migratory species, such as marine turtles, is reduced. Only low levels of interactions with listed migratory species (such as marine turtles) have been reported, and individuals are often released alive and uninjured. Therefore, the department considers that the current operation of the fishery under the management plan is not likely to adversely affect the conservation status of any listed migratory species or a population of that species.</p>

Part 13 (cont.)

Division 3 Whales and other cetaceans Section 245 Minister may accredit plans or regimes	The department's assessment of the Torres Strait Prawn Fishery
<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 cetaceans are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a species of cetacean or a population of that species.</p>	<p>The Torres Strait Prawn Fishery will be managed under the Torres Strait Prawn Fishery Management Plan 2009, in force under the <i>Torres Strait Fisheries Act 1984</i>.</p> <p>The Torres Strait Prawn Fishery Management Plan 2009 was accredited under section 245 of the EPBC Act in February 2009. The department acknowledges that the licence conditions of the management plan require fishers to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing.</p> <p>No interactions with cetaceans have been reported in the fishery. Given the nature of the harvesting operation (slow moving tows of otter trawl nets), the risk of interactions with cetaceans is likely to be low. Therefore, the department considers that the current operation of the fishery under the management plan is not likely to adversely affect the conservation status of any whale or cetacean species or a population of that species.</p>

Part 13 (cont.)

Division 4 Listed marine species Section 265 Minister may accredit plans or regimes	The department's assessment of the Torres Strait Prawn Fishery
<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 species.</p>	<p>The Torres Strait Prawn Fishery will be managed under the Torres Strait Prawn Fishery Management Plan 2009, in force under the <i>Torres Strait Fisheries Act 1984</i>.</p> <p>The Torres Strait Prawn Fishery Management Plan 2009 was accredited under section 265 of the EPBC Act in February 2009. The department acknowledges that the licence conditions of the management plan require fishers to take all reasonable steps to ensure that listed marine species are not killed or injured as a result of the fishing.</p> <p>The Torres Strait Prawn Fishery has a low level of interactions with syngnathids (seahorses) and sea snakes, which are listed marine species under the EPBC Act. Given the mandatory requirement for all trawl nets, except try nets, to be fitted with a BRD, the Protected Zone Joint Authority is acting to mitigate the risk of killing or injuring large numbers of listed marine species. Therefore, the department considers that the current operation of the fishery under the management plan is not likely to adversely affect the conservation status of any listed marine species or a population of that species.</p>

Part 13 (cont.)

Section 303AA Conditions relating to accreditation of plans, regimes and policies	The department's assessment of Torres Strait Prawn Fishery
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	The department recommends that the Torres Strait Prawn Fishery Management Plan 2009 be accredited under sections 208A, 222A, 245 and 265.
(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only: (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	The department considers that no conditions are required for the accreditation of the Torres Strait Prawn Fishery Management Plan 2009 under Part 13.
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	

Part 13A

Section 303BA Objects of Part 13A

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

- (a) to ensure that Australia complies with its obligations under CITES³ 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.

³ Convention on International Trade in Endangered Species of Wild Fauna and Flora

Section 303DC Minister may amend list	The department's assessment of the Torres Strait Prawn Fishery
<p>(1) Minister may, by instrument in published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <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>The department recommends that product derived from the Torres Strait Prawn Fishery be included in the list of exempt native specimens while the specimens are covered by the declaration of an approved wildlife trade operation under section 303FN of the EPBC Act in relation to the fishery.</p>
<p>(1A) In deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>The Torres Strait Prawn Fishery was assessed under Part 10 of the EPBC Act in November 2005. As a result of that assessment, the department considered that actions taken under the management regime for the fishery would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area.</p> <p>In late 2005, the Protected Zone Joint Authority agreed on a proposal to develop a management plan for the fishery. The Torres Strait Prawn Fishery Management Plan 2009 formalised a number of new management arrangements, such as unitising effort, gear restrictions, the compulsory use of TEDs and BRDs, as well as the compulsory use of a Vessel Monitoring System (VMS). In February 2009, the department considered the impacts of actions on the environment of fishing operations approved in accordance with the management plan under section 146 (Part 10 of the EPBC Act). The department concluded that actions approved in accordance with the Torres Strait Prawn Fishery Management Plan 2009 would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area.</p>

<p>(1C) The above does not limit the matters that may be taken into account in deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery.</p>	<p>It is not possible to list exhaustively the factors that you may take into account in amending the list of exempt native specimens. The objects of Part 13A, which are set out 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>The department considers that the amendment of the list of exempt native specimens to include product taken in the Torres Strait Prawn Fishery would be consistent with the provisions of Part 13A (listed above 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 Torres Strait Prawn Fishery is unlikely to be unsustainable and threaten biodiversity within the next three years, and ▪ the Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) do not specify fish or crustaceans (such as prawns) as a class of animal in relation to the welfare of live specimens.
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<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <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>The department considers that the consultation requirements have been met. The Delegate of the Minister for Sustainability, Environment, Water, Population and Communities consulted with the Australian Fisheries Management Authority, on behalf of the Protected Zone Joint Authority, whom have management responsibility for the fishery concerned. In addition, the proposal to amend the list of exempt native specimens was advertised on the department's website and comment was invited from interested people for a period of 22 business days. No comments were received.</p>
<p>(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.</p>	<p>The instrument for the Torres Strait Prawn Fishery made under section 303DC will be gazetted and made available on the department's website.</p>

Section 303FN Approved wildlife trade operation	The department's assessment of the Torres Strait Prawn Fishery
(2) The Minister may, by instrument published in the <i>Gazette</i> , declare that a specified wildlife trade operation is an approved wildlife trade operation 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>The department considers that the operation of the Torres Strait Prawn Fishery is consistent with objects of Part 13A (listed above 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 Torres Strait Prawn Fishery during the period of the recommended declaration as an approved wildlife trade operation is unlikely to be unsustainable and threaten biodiversity, and ▪ the Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) do not specify fish or crustaceans (such as prawns) as a class of animal in relation to the welfare of live specimens. <p>The department considers that the operation of the Torres Strait Prawn Fishery during the period of the recommended declaration as an approved wildlife trade operation will not be detrimental to the survival or conservation status of a taxon to which it relates, given the management measures currently in place, which include:</p> <ul style="list-style-type: none"> ▪ limited entry ▪ permanent spatial closures and a seasonal closure ▪ vessel and gear restrictions, and ▪ an annually set total allowable effort based on quantitative stock assessments of the target species.

<p>(ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and</p> <p>(c) if the operation relates to the taking of live specimens that belong to a taxon specified in the regulations – the conditions that, under the regulations, are applicable to the welfare of the specimens are likely to be complied with; and</p> <p>(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.</p>	<p>The department considers that the operation of the Torres Strait Prawn Fishery, during the period of the recommended declaration as an approved wildlife trade operation, will not threaten any relevant ecosystem, given the management measures currently in place, which include:</p> <ul style="list-style-type: none"> ▪ limited entry ▪ permanent spatial closures and a seasonal closure, and ▪ vessel and gear restrictions. <p>The EPBC Regulations do not specify fish or crustaceans (such as prawns) 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>
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<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>The department considers that the operation of the Torres Strait Prawn Fishery, during the period of the recommended declaration as an approved wildlife trade operation, will not have a significant impact on any relevant ecosystem, given the management measures currently in place, which include:</p> <ul style="list-style-type: none"> ▪ limited entry ▪ permanent spatial closures and a seasonal closure ▪ vessel and gear restrictions, and ▪ an annually set total allowable effort based on quantitative stock assessments of the target species. <p>The department considers that the management arrangements (including monitoring procedures) that will be employed for the Torres Strait Prawn Fishery are likely to be effective, given the implementation of a Vessel Monitoring System (VMS) by Fisheries Queensland.</p>
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<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have regard to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or Territory concerned; and</p> <p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	<p>The Torres Strait Prawn Fishery will be managed under the Torres Strait Prawn Fishery Management Plan 2009, in force under the <i>Torres Strait Fisheries Act 1984</i> and relevant provisions of that Act, the Torres Strait Fisheries Regulations 1985 and Fisheries Management Notices.</p> <p>The <i>Torres Strait Fisheries Act 1984</i> applies throughout Torres Strait waters.</p> <p>The legislation is likely to be effective.</p>
<p>(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, and only if, the operation is an operation for the taking of specimens and:</p> <p>(d) the operation is a commercial fishery.</p>	<p>The Torres Strait Prawn Fishery is a commercial fishery.</p>
<p>(10A) In deciding whether to declare that a commercial fishery is an approved wildlife trade operation for the purposes of this section, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>In February 2009, the department considered the impacts of actions on the environment of fishing operations approved in accordance with the management plan under section 146 (Part 10 of the EPBC Act). The department concluded that actions approved in accordance with the Torres Strait Prawn Fishery Management Plan 2009 would not have an unacceptable or unsustainable impact on the environment in a Commonwealth marine area.</p>
<p>(10B) Subsection (10A) does not limit the matters that may be taken into account in deciding whether to declare that a fishery is an approved wildlife trade operation for the purposes of this section.</p>	

Section 303FR Public consultation	The department's assessment of the Torres Strait Prawn Fishery
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <ul style="list-style-type: none"> (a) setting out the proposal to make the declaration; and (b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and (c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal. 	<p>A public notice, which:</p> <ul style="list-style-type: none"> ▪ set out the proposal to declare the Torres Strait Prawn Fishery an approved wildlife trade operation ▪ included the Protected Zone Joint Authority's application, and ▪ invited persons and organisations to give written comments about the proposal within the period 23 November 2011 to 22 December 2011. <p>was published on the department's website.</p>
<p>(2) A period specified in a notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.</p>	<p>The period specified in the notice included a total of 22 business days.</p>
<p>(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.</p>	<p>No comments about the proposal were received.</p>

Section 303FT Additional provisions relating to declarations	The department's assessment of the Torres Strait Prawn Fishery
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	The department recommends that the Torres Strait Prawn Fishery be declared an approved wildlife trade operation under section 303FN.
<p>(4) The Minister may make a declaration about a plan or operation even though he or she considers that the plan or operation should be the subject of the declaration only:</p> <ul style="list-style-type: none"> (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. <p>In such a case, the instrument of declaration is to specify the period, circumstances or condition.</p>	<p>The department considers that the Torres Strait Prawn Fishery should be the subject of a declaration under section 303FN only while the conditions described in Table 4 are complied with.</p> <p>The instrument of declaration for the Torres Strait Prawn Fishery specifies the conditions.</p>
(8) A condition may relate to reporting or monitoring.	Condition 3 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 Torres Strait Prawn Fishery made under section 303FN, and the conditions under section 303FT, will be gazetted and made available on the department's website.

Part 16

Section 391 Minister must consider precautionary principle in making decisions	The department's assessment of the Torres Strait Prawn Fishery
(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and section 303FN, to the extent he or she can do so consistently with the other provisions of this Act.	The precautionary principle has been considered in preparing the department's advice about decisions under section 303DC and section 303FN. The department considers that the management arrangements in place in the fishery have been determined taking into account uncertainties and that they are sufficient to maintain the fishery in an ecologically sustainable state.
(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.	

The Department of Sustainability, Environment, Water, Population and Communities' final conditions and recommendations to the Protected Zone Joint Authority for the Torres Strait Prawn Fishery

The material submitted by the Torres Strait Protected Zone Joint Authority demonstrates that the management arrangements for the Torres Strait Prawn Fishery meet most of the requirements of the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'.

Stock Status and Recovery

The Torres Strait Prawn Fishery is managed using input controls, including:

- limited entry
- permanent spatial closures and a seasonal closure
- vessel and gear restrictions, and
- an annually set total allowable effort based on quantitative stock assessments of the target species.

In July 2011, the Protected Zone Joint Authority approved the 'Torres Strait Prawn Fishery Harvest Strategy 2011', which sets out the rules for setting the total allowable effort for the fishery each year.

The department considers that the range of management measures employed in the Torres Strait Prawn Fishery 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.

Ecosystem Impacts

Taking into account the management measures above and the mandatory requirement for all fishers in the fishery to use turtle excluder devices and bycatch reduction devices, the department considers that the management of the Torres Strait Prawn Fishery provides for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

While the Torres Strait Prawn Fishery is relatively well managed, the department has identified a number of risks remaining that must be managed to ensure that impacts are minimised. The department considers that to address these risks, there is a need for the Protected Zone Joint Authority to:

- implement an appropriate trigger point at which time a review of data validation systems in the Torres Strait Prawn Fishery will be undertaken, and
- understand, communicate and mitigate, if required, risks to bycatch, habitats and ecosystems.

The department considers that until it can be demonstrated that these issues are adequately addressed, declaration of the harvest operations of the Torres Strait Prawn Fishery as an approved wildlife trade operation for three years, until 18 March 2016, is appropriate. The department considers that the declaration should be subject to the conditions listed in Table 4 below. To address the risks identified above, the recommendations outlined in Table 4 have been made.

Table 4: Torres Strait Prawn Fishery Assessment - Summary of Issues, Conditions and Recommendations – March 2013

Issue	Condition
<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of Sustainability, Environment, Water, Population and Communities needs to be advised of any changes that are made to the management arrangements and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem.</p>	<p>Condition 1:</p> <p>Operation of the Torres Strait Prawn Fishery will be carried out in accordance with the Torres Strait Prawn Fishery Management Plan 2009 in force under the <i>Torres Strait Fisheries Act 1984</i>, and the Torres Strait Fisheries Regulations 1985.</p> <p>Condition 2:</p> <p>The Protected Zone Joint Authority will advise the Department of Sustainability, Environment, Water, Population and Communities of any intended change to the Torres Strait Prawn Fishery's management arrangements that could affect the assessment of the fishery against the criteria on which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are based.</p>
<p><u>Annual Reporting</u></p> <p>It is important that reports be produced and presented to the department 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 assessment of the fishery (for a complete description of annual reporting requirements, see Appendix B of the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' available from the department's website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html).</p>	<p>Condition 3:</p> <p>The Protected Zone Joint Authority to produce and present reports to the Department of Sustainability, Environment, Water, Population and Communities annually as per Appendix B to the 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'.</p>

Issue	Recommendation
<p><u>Information collection and data validation</u></p> <p>In the 2005 assessment of the Torres Strait Prawn Fishery under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act), a recommendation was made for the Protected Zone Joint Authority to develop and implement an ongoing, robust system to validate catch and effort data for target and byproduct species taken in the fishery.</p> <p>At the time of the 2009 reassessment of the Torres Strait Prawn Fishery, the Protected Zone Joint Authority reported that effort in the fishery was validated through the use of vessel monitoring systems. The department further noted the implementation of a fishery observer program in the fishery (the Australian Fisheries Management Authority, on behalf of the Protected Zone Joint Authority, administer an observer program which collects data on target, byproduct, bycatch and protected species in the Torres Strait Prawn Fishery).</p> <p>In its 2010 annual status report to the department for the Torres Strait Prawn Fishery, the Protected Zone Joint Authority stated that its agencies were working in 2010 to develop a system for validating catch and effort data. However, in its 2011 annual status report to the department and its 2012 application for ongoing export approval under the EPBC Act, the Protected Zone Joint Authority advised that it had delayed the development of a system for validating catch and effort data as a result of the current low level of effort in the fishery. The Protected Zone Joint Authority considers that, under current effort levels, the risk of not developing a validation system is low.</p> <p>While acknowledging the low effort in the fishery in recent fishing seasons, the department notes the incomplete species differentiation in logbook reports identified in the Torres Strait Prawn Fishery Handbooks 2011 and 2012 (Cocking et al., 2011; Cocking et al., 2012) and questions raised by Flood et al. (2011) regarding the representativeness of fishery observer data collected during 2010.</p> <p>The Australian Fisheries Management Authority has advised the department that observer coverage during the 2010 season was low due to safety requirements for carriage of observers on boats operating in the Torres Strait Prawn Fishery, which was compounded by the low number of boats fishing in the fishery. However, observer coverage increased back to target levels for the 2011 and 2012 seasons, with 43 days and 39 days being achieved respectively. Catch data from logbooks are currently validated against observer collected data for those trips where observers are on board.</p>	<p>Recommendation 1:</p> <p>Agencies of the Protected Zone Joint Authority to set appropriate trigger points, after which data validation systems will be reviewed for the Torres Strait Prawn Fishery.</p>

Issue	Recommendation
<p><u>Information collection and data validation (cont'd)</u></p> <p>The department considers robust data validation to be important in demonstrating that the operation of the Torres Strait Prawn Fishery is ecologically sustainable (refer to 1.1.1 of the 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'). As noted in the department's 2009 assessment of the fishery, such a system should be capable of validating data on retained (target and byproduct) and discarded catch, as well as validating protected species interactions and impacts on the marine ecosystem. The department recognises the important role the Scientific Observer Program plays in validating the logbook catch data for the fishery. However, given the reliance on logbook data to inform management responses in the fishery, the department recommends that the Protected Zone Joint Authority continue to monitor the effectiveness of the observer program to validate data as effort in the fishery increases.</p> <p>The department accepts the Protected Zone Joint Authority's decision to delay additional data validation activities while effort levels in the fishery remain low, however the department recommends that Protected Zone Joint Authority agencies agree to appropriate trigger points after which agencies will review data validation systems in the Torres Strait Prawn Fishery. The Australian Fisheries Management Authority has advised that trigger points contained within the 'Harvest Strategy for the Torres Strait Prawn Fishery 2011' would be appropriate to trigger a review of data validation within the fishery.</p>	

Issue	Recommendation
<p><u>Risk to bycatch species, habitats and ecosystems</u></p> <p>The 2005 assessment of the Torres Strait Prawn Fishery under the EPBC Act noted a number of mitigation measures in the Torres Strait Prawn Fishery Bycatch Action Plan 2005 aimed at reducing the ratio of bycatch to target prawn catch.</p> <p>The department understands that following the 2005 assessment, additional bycatch reduction device designs were introduced in the fishery. In addition, the Protected Zone Joint Authority's 2007 strategic assessment report, on which its application for further export approval for the fishery was based, indicated that research into the impact of the fishery on protected species had been identified as a high priority but had not been implemented at that time.</p> <p>In the 2009 reassessment of the Torres Strait Prawn Fishery under the EPBC Act, the department recommended that the Protected Zone Joint Authority continue to pursue a reduction in the composition and volume of bycatch in the fishery.</p> <p><i>Ecological Risk Assessment</i></p> <p>A Level 1 (Scale, Intensity, Consequence Analysis [SICA]) ecological risk assessment for the Torres Strait Prawn Fishery was undertaken in 2006 (Turnbull et al., 2007). Various components of bycatch, protected species and habitats were all found to be at moderate or greater risk to the impacts of commercial fishing operations. In particular, the report of the assessment:</p> <ul style="list-style-type: none"> • recommended the collection of additional information regarding the numbers and species of sea snakes (all sea snake species known to occur in Australian waters are listed marine species under the EPBC Act) • identified smaller individuals of shark and ray species as the bycatch most at risk from fishing • assessed the habitats component to be at major risk of impact <p>The Australian Fisheries Management Authority has indicated that a higher level ecological risk assessment will be undertaken when effort triggers identified in the 2011 harvest strategy are reached. The department has also been advised that these triggers were developed through the Torres Strait Prawn Harvest Strategy Working Group which was made up of scientific, economic, industry and Protected Zone Joint Authority representatives. The triggers were developed over a three year period and set conservatively at a level well below the current sustainable effort limit.</p> <p>Given the current low levels of fishing and the Protected Zone Joint Authority's intention to encourage increased levels of effort in the fishery, the department concurs with the suggested trigger based approach to ecological risk assessment in line with the 2011 Harvest Strategy triggers.</p>	<p>Recommendation 2:</p> <ol style="list-style-type: none"> a) The Protected Zone Joint Authority to ensure that relevant risk assessments for bycatch species, habitats and ecosystems in the Torres Strait Prawn Fishery are undertaken when trigger points detailed in the 'Torres Strait Prawn Fishery Harvest Strategy 2011' are reached. b) The Protected Zone Joint Authority to continue to implement appropriate mitigation measures to ensure sustainability of bycatch species, habitats and ecosystems in the Torres Strait Prawn Fishery.

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Acronyms

AFMA	Australian Fisheries Management Authority
B _{MEY}	Biomass at maximum economic yield
B _{MSY}	Biomass at maximum sustainable yield
BRD	Bycatch reduction device
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DEWHA	Department of the Environment, Water, Heritage and the Arts
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPBC Regulations	<i>Environment Protection and Biodiversity Conservation Regulations 2000</i>
FMI	Fisheries Management Instrument
FRDC	Fisheries Research and Development Corporation
LENS	List of Native Exempt Specimens
PNG	Papua New Guinea
PZJA	Protected Zone Joint Authority
SICA	Scale, Intensity, Consequence Analysis
TAE	Total allowable effort
TED	Turtle excluder device
TSPF	Torres Strait Prawn Fishery
TSPZ	Torres Strait Protected Zone
VMS	Vessel monitoring system