



**Australian Government**

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**Department of the Environment and Water Resources**

Assessment of the  
**Gulf of Carpentaria Developmental Finfish Trawl  
Fishery**

**November 2007**

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Assistant Secretary  
Marine Environment Branch  
Department of the Environment and Water Resources  
GPO Box 787  
Canberra ACT 2601

#### **Disclaimer**

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

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**Table 1: Summary of the Queensland (QLD) Gulf of Carpentaria Developmental Finfish Trawl Fishery (GOCDFTF)**

<b>Publicly available information relevant to the fishery</b>	<ul style="list-style-type: none"> <li>• QLD <i>Fisheries Act 1994</i></li> <li>• QLD <i>Fisheries Regulation 1995</i></li> <li>• Annual Status Report 2005 – Queensland Gulf of Carpentaria Developmental Finfish Trawl Fishery (Department of Primary Industries and Fisheries).</li> <li>• Annual Status Report –Gulf of Carpentaria Developmental Finfish Trawl Fishery, January 2007 (Department of Primary Industries and Fisheries).</li> <li>• Annual Status Report –Gulf of Carpentaria Developmental Finfish Trawl Fishery, 2007 (Department of Primary Industries and Fisheries).</li> <li>• Assessment of the Gulf of Carpentaria Developmental Finfish Trawl Fishery, November 2004 (Department of the Environment and Heritage).</li> <li>• Ecological Assessment of the gulf of Carpentaria Developmental Finfish Trawl Fishery, 2004 (Department of Primary Industries and Fisheries).</li> </ul>
<b>Area</b>	Northern Gulf of Carpentaria waters beyond 25 nautical miles (nm) off the coast to the edge of the Australian Fishing Zone. The western edge is bounded by the QLD/NT sea border.
<b>Fishery status</b>	The sustainable yields for the combined species of tropical snappers in the Australian sector of the Gulf of Carpentaria (GoC) is estimated to be between 2900 tonnes (t) and 9000 t (BRS Status Reports 2004). GOCDFTF 2006 Total Allowable Catch (TAC) set at 1250 t.
<b>Target Species</b>	<p>Quota species include crimson snapper (<i>Lutjanus erthropterus</i>), saddletail snapper (<i>Lutjanus malabaricus</i>), painted sweetlip (<i>Diagramma labiosum</i>), redspot emperor (<i>Lethrinus lentjan</i>) and red emperor (<i>Lutjanus sebae</i>).</p> <p>Information on the biology of these/this species can be found in the 2004 assessment of the fishery located on the Department of the Environment and Water Resources' (DEW) website.</p>
<b>Byproduct Species</b>	<p>Make up 28% of the catch. Main species include:</p> <ul style="list-style-type: none"> <li>• mangrove jack (<i>Lutjanus argentimaculatus</i>);</li> <li>• Golden snapper (<i>Lutjanus johnii</i>);</li> <li>• goldband snapper (<i>Pristipomoides</i> spp); and</li> <li>• other species.</li> </ul>
<b>Gear</b>	Semi-demersal trawl nets separated by two otter boards. Meets specifications which define an 'environmentally friendly net'.
<b>Season</b>	Year round.
<b>Commercial harvest 2006</b>	<p>Total commercial harvest of 613 t, including 444 t of quota species (crimson snapper 39% of total catch by weight, saddletail snapper 28% of total catch by weight).</p> <p>Byproduct species make up 28% of the total catch. Mangrove jack</p>

	<p>comprised 12% of total catch by weight.</p> <p>Total catch and effort in 2006 were the highest reported since 1998. Catches of crimson snapper, saddletail snapper and mangrove jack have all increased since 2004.</p>
<b>Value of commercial harvest 2006</b>	Approximately \$2.5 million.
<b>Take by other sectors</b>	Likely to be negligible.
<b>Commercial licences issued</b>	Three authorities issued in 2006. Two commercial boats accessing the fishery.
<b>Management arrangements</b>	<p>A mixture of input and output controls including:</p> <ul style="list-style-type: none"> <li>• limited entry;</li> <li>• a total allowable catch (TAC) for quota species;</li> <li>• in-possession limits for some byproduct species;</li> <li>• limits on the species that can be retained (not permitted to retain barramundi, sharks, tuna and tuna-like fish (namely yellowfin tuna, southern bluefin tuna, bigeye tuna, longtail tuna, albacore tuna, northern bluefin tuna and skipjack tuna), all pomfrets (Family Bramidae) and all billfish).</li> <li>• a defined fishery area;</li> <li>• gear restrictions; and</li> <li>• size limits.</li> </ul>
<b>Export</b>	Majority of product sold on the domestic market.
<b>Bycatch</b>	A single observer trip undertaken in 2006 estimated that 43% of the catch by weight was discarded. This comprised unmarketable finfish (40%) and benthos (3%).
<b>Interaction with Protected Species</b>	<p>Low level of interaction with sawfish, marine turtles, seasnakes and syngnathids reported, although largely unvalidated.</p> <p>Species of Conservation Interest (SOCI) logbooks were implemented for the start of the 2007 fishing season. No SOCI interactions were reported by operators in 2007. A single observer trip (five days) was conducted in 2006. No protected species interactions were recorded during this trip. Observer reports from four separate trips in 2005 recorded interactions with marine turtles (12), sawfish (four), seasnakes (22) and syngnathids (three). Approximately half of these animals were released alive.</p> <p>A Memorandum of Understanding between the Department of Primary Industries and Fisheries (DPI&amp;F) and DEW for the Reporting of Fisheries Interactions with Protected Species (Reporting MOU) is currently being negotiated to streamline reporting requirements for interactions with protected species, assisting fishers in meeting their requirements under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act). As such, the Reporting MOU reduces the administrative reporting burden on individual fishers and provides for regular reporting of protected species interactions.</p> <p>Unless exceptional circumstances exist, DEW will not take any actions</p>

	<p>against the authority holders in respect of a failure to meet the seven-day reporting requirement of protected species interactions, if the interaction was recorded in the authority holder's logbook at the time of the interaction and in accordance with the requirements of the Reporting MOU.</p>
<b>Ecosystem Impacts</b>	<p>The nets used in the GOCDFTF are described as being 'environmentally friendly'. The nets are designed to operate off the seabed, reducing the catch of sponges, corals and other unwanted species and the benthic impact. A full description of the full wing Wendy trawl net and the Champion cutaway wing net is included in the 2004 assessment of the GOCDFTF (DEH, 2004).</p>

**Table 2: Progress in implementation of recommendations and conditions made in initial assessment of the GOCDFTF**

<b>2004 WTO Condition</b>	<b>Progress</b>	<b>Recommended Action</b>
1. Operation of the fishery will be carried out in accordance with the management regime in force under the <i>Fisheries Act 1994</i> and <i>Fisheries Regulation 1995</i> .	The fishery has operated in accordance with the legislated management regime over the course of the current export approval.	This condition has been met and will continue to apply under the new Wildlife Trade Operation (WTO) declaration for this fishery for the next two years ( <b>WTO Condition 1</b> ).
2. The Queensland Department of Primary Industries and Fisheries will inform the Australian Government Department of the Environment and Heritage (DEH) of any intended amendments to the Queensland Gulf of Carpentaria Developmental Finfish Trawl Fishery management regime that may affect the sustainability of the target species or negatively impact on bycatch, protected species or ecosystem.	DPI&F reported that there was one change to GOCDFTF permit conditions in 2006 to increase the landing report time from two hours to at least 24 hours. As this change improved the compliance capabilities of the Queensland Fisheries and Boating Patrol, DEW considers that this change is an improvement to the management arrangements with respect to sustainability.	DEW expects that DPI&F will advise of any changes to the management regime in the future. This remains a condition in force under this new export approval ( <b>WTO Condition 2</b> ).

<p>3. Reports to be produced and presented to DEH annually, and to include:</p> <ul style="list-style-type: none"> <li>• information sufficient to allow assessment of the progress of the Queensland Department of Primary Industries and Fisheries in implementing the recommendations made in the <i>Ecological Assessment of the Gulf of Carpentaria Developmental Finfish Trawl Fishery 2004</i>;</li> <li>• A description of the status of the fishery and catch and effort information;</li> <li>• A statement of the performance of the fishery against objectives, performance indicators and measures once developed; and</li> <li>• Research undertaken or completed relevant to the fishery.</li> </ul>	<p>Annual status reports for the GOCDFTF were prepared in 2005, 2006 and 2007. These reports are publicly available from the DPI&amp;F website. The reports contain information on progress in implementing recommendations, catch and effort trends and research undertaken or completed relevant to the fishery. DPI&amp;F has developed a draft Performance Measurement System (PMS) for the Gulf of Carpentaria Finfish Fisheries that includes performance measures and reference points for key target species, bycatch and protected species. DPI&amp;F will report on the performance of the GOCDFTF against the performance measures in the annual status reports.</p>	<p>The Department of Environment and Water Resources (DEW) considers that this condition has been met and notes that, as part of the new WTO declaration for this fishery, this condition remains in force for a further two years (<b>WTO Condition 3</b>).</p>
2004 Recommendations	Progress	Recommended Action
DPI&F to inform DEH of any intended amendment to the management arrangements that may affect the	Refer to WTO Condition 1 above for detail.	Refer to WTO Condition 1 above for detail.

sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem.		
By the end of 2006 DPI&F to develop fishery specific objectives, performance indicators and precautionary performance measures for target, byproduct, bycatch, protected species and impacts on the ecosystem. Data collection programs appropriate to monitor the performance measures to be implemented.	<p>DPI&amp;F has developed a draft PMS for the Gulf of Carpentaria Finfish Fisheries. The draft PMS for the GOCDFTF includes performance measures and reference points for key target species (crimson snapper and saddletail snapper), byproduct, bycatch, protected species and benthic impact.</p> <p>For red snapper the performance measures are the estimated catch by all Gulf fisheries and sectors does not exceed the 1,200 t TAC and a 10% decline occurs in the catch per unit effort (CPUE) for either of the red snapper species in the fishery each year over three consecutive years.</p> <p>For byproduct two performance measures are articulated. The first relates to the annual whole wet weight of total byproduct landings changing by at least 20% in any two consecutive years. The second relates to a 30% change over any consecutive three year period of the annual whole wet weight of specified byproduct indicator species (red emperor, golden snapper, goldband snapper and mangrove jack).</p> <p>For bycatch three reference points are described. The first relates to the annual percentage weight of finfish bycatch increasing to 40% of total</p>	<p>DEW considers that this recommendation has been largely met by the draft PMS. DEW is concerned that the protected species performance measure refers to identification of significant increases in TEP species catches with no supporting trigger points. DEW recommends that DPI&amp;F incorporates appropriate performance measures and reference points related to minimising protected species interactions into the PMS (<b>Recommendation 4</b>).</p>



	<p>catch. The second is the annual percentage weight of non-fish bycatch (excluding sessile benthos) increasing to 20% of total catch. The third relates to the number of any sawfish, shark or ray increasing by 5% over two consecutive years.</p> <p>The performance measures for protected species relate to the catch of threatened, endangered and protected (TEP) species increasing significantly. No reference point has been identified for this component.</p> <p>The performance measures for benthic species relate to the use of environmentally friendly trawl nets and maintaining the annual percentage weight of benthos below the 2003 level (10% of total landed catch).</p> <p>Other key inclusions in the draft PMS include reporting on the performance of the GOCDFTF against the performance measures in the annual status reports and a commitment to review the PMS after the first year of reporting.</p>	
DPI&F to monitor the status of the fishery in relation to the performance measures once developed. Within 3 months of becoming aware that a performance measure has not been met, DPI&F to finalise a clear timetable for the implementation of appropriate management responses.	The draft PMS requires that a timetable for any management change is identified within three months of becoming aware of the performance measure not being met and an analysis of the performance of the fishery against the performance measures is included in annual status reports.	None. DEW considers this recommendation will be implemented through the implementation of the PMS.

From 2005, DPI&F to report publicly on the status of the fishery on an annual basis, including explicitly reporting against each performance measure, once developed.	Annual status reports for the GOCDFTF were prepared for 2005, 2006 and 2007. These reports are publicly available from DPI&F's website. In addition, DPI&F advises that performance measures have been developed as part of the draft PMS for the Gulf fisheries and the performance of the GOCDFTF will be measured against these performance measures in the annual status reports.	DEW commends DPI&F for their commitment to producing annual status reports on the GOCDFTF and encourages DPI&F to continue such reporting into the future. DEW expects that future annual status reports will include explicit reporting against the GOCDFTF performance measures included in the PMS for Gulf fisheries.
DPI&F to maintain data validation mechanisms for target, byproduct, bycatch and protected species interactions and implement alternative data collection validation techniques if observer trips are no longer feasible or are insufficient to provide robust information on the fishery.	The fisheries observer program (FOP) has been active in the GOCDFTF in 2005, (four trips), 2006 (one trip) and 2007 (one trip). DPI&F advises that the fisheries observer program (FOP) will continue in this fishery. The next observer surveys in the GOCDFTF are planned for 2008.	DEW considers that this recommendation has been implemented by the ongoing FOP. DEW will review the adequacy of the FOP for validation purposes in the next review of the GOCDFTF in 2010 when additional data is available.
Within 18 months, DPI&F to develop a process to improve estimates of recreational and Indigenous take and factor these into stock assessments and management controls to ensure overall catch levels are sustainable.	<p>The implementation of this recommendation is ongoing. DPI&amp;F continues to assess methodologies and designs of pilot studies to collect Indigenous fisher data and improve the collection of recreational fishing information system (RFISH) data. With respect to Indigenous fishers, this process is being developed in collaboration with southern GoC communities.</p> <p>In 2007 DPI&amp;F released the report, <i>Experimental results from the third statewide Recreational Fishing Information System diary program (2002)</i> (DPI&amp;F, 2007) which provided estimates of catch and release numbers for recreationally caught species in Queensland.</p>	DEW acknowledges the work DPI&F is undertaking to improve the estimates of recreational and Indigenous take on a finer spatial scale, and supports this with a recommendation ( <b>Recommendation 3</b> ).

<p>DPI&amp;F to continue to seek out alternative cost effective fishery independent monitoring techniques, particularly for target species, and report outcomes in the annual status report from 2005.</p>	<p>The 2007 annual status report advised that since 2004, DPI&amp;F fisheries observers and the long term monitoring program (LTMP) have collected age, reproductive status and size structure information for the major red snapper species and mangrove jack in the GOCDFTF. Length structure information was also collected for three byproduct species (red emperor, large-scale seaperch and goldband snapper).</p>	<p>DEW expects that the FOP and LTMP will continue to collect biological information on key species harvested in the GOCDFTF. This issue will be reviewed in the next assessment of the GOCDFTF in 2010.</p>
<p>DPI&amp;F to continue to cooperate with other relevant jurisdictions to pursue complementary management and research of shared stocks for all target and byproduct species that may be affected by cross-jurisdictional issues.</p>	<p>The 2007 annual status report advises that a revised stock assessment of red snappers between DPI&amp;F, NT, WA and CSIRO is planned to be undertaken in 2008.</p> <p>DPI&amp;F attends and contributes scientific and management advice to multi-jurisdictional forums such as the Northern Australia Fisheries Management Forum (NAFM) and Queensland Fisheries Joint Authority meetings.</p>	<p>None. DEW considers that this recommendation has been implemented. DEW will review the outcomes of the joint stock assessment of red snappers in the next review of the GOCDFTF in 2010.</p>
<p>DPI&amp;F to implement appropriate management measures for species identified through the risk assessment as being high risk within 12 months of completion of the risk assessment.</p>	<p>DPI&amp;F reports that an Ecological Risk Assessment (ERA) covering all Gulf of Carpentaria fisheries species has been completed in 2004 with the report published in May 2006 (DPI&amp;F, 2006). No GOCDFTF species were identified as being at high risk.</p>	<p>DEW considers that this recommendation has been met. DEW expects that if any GOCDFTF become high-risk in future reviews of the ERA, DPI&amp;F will implement appropriate management responses.</p> <p>DEW is concerned that since the ERA was undertaken the catch of mangrove jack has significantly increased in the GOCDFTF (71 t in 2006). This equates to a 90% increase from 2003 catch levels. DPI&amp;F advises that the proportion of the total catch comprised of mangrove jack</p>

		decreased from 18% in 2002 to 12% in 2006. Since 1999, mangrove jack has been the third most dominant species harvested in the GOCDFTF by weight. Given the recent increase in catch however, DEW considers DPI&F should review the information available on mangrove jack and investigate management responses to ensure harvest levels are sustainable ( <b>Recommendation 2</b> ).
DPI&F to continue to pursue reduction in the amount of bycatch, including protected species, taken in the GOCDFTF through the refinement of management measures and to investigate methods for further increasing the survivability of bycatch species. Any suitable methods identified to be implemented in a timely manner.	<p>There appears to have been little progress in reducing bycatch levels in the GOCDFTF since the last assessment. The 2007 annual status report advises that the single observer trip undertaken in 2006 recorded 43% of the catch by weight as bycatch, predominately unmarketable finfish.</p> <p>The 2007 annual status report also advises that one GOCDFTF operator also fishes in the WA finfish trawl fishery and as such has trialled the use of turtle excluder devices (TEDs) and bycatch reduction devices (BRDs). DPI&amp;F advise that GulfMAC will consider the use of TEDs, BRDs and hoppers in the GOCDFTF.</p>	DEW notes that the reported level of marine turtle captures in the GOCDFTF is moderately low (12 animals reported in the four 2005 observer trips conducted). DEW notes the results achieved in the WA Pilbara Demersal Finfish Trawl Fishery with respect to the decrease in the capture of marine turtles since the use of bycatch grids became compulsory in the fishery. The EPBC Act requires that all reasonable steps be taken to avoid the killing or injuring of listed threatened species, which included several marine turtle species. Therefore, DEW recommends that DPI&F, in collaboration with GulfMAC, undertake trials of TEDs and BRDs in the GOCDFTF, with a view to reducing the catch of marine turtles and other large bycatch species ( <b>Recommendation 1</b> ).
DPI&F to review the appropriateness of the current bycatch performance measure	New bycatch performance measures have been incorporated into the draft PMS for finfish	DEW considers that this recommendation will be implemented through the

within 1 year.	bycatch, other bycatch and sharks, rays and sawfish (see detailed discussion of specific performance measures against progress report for Recommendation 2 above). The draft PMS also commits to reviewing all the performance measures after the first year of reporting.	finalisation of the PMS.
To support the implementation of the SOCI logbook DPI&F to develop and implement an education program for fishers to promote the importance of protected species protection and accurate incident reporting within one year.	A protected species education package, including advice on minimising harmful interactions with protected species, was provided to all Queensland fishers in 2005. The SOCI logbook was introduced into the GOCDFTF in the 2007 fishing season.	None. DEW considers that this recommendation has been implemented.

**Table 3: The Department of the Environment and Water Resources (DEW) assessment of the GOCDFTF 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 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 DEW website.

**Part 13**

<b>Division 1 Listed threatened species</b> <b>Section 208A Minister may accredit plans or regimes</b>	<b>DEW assessment of the GOCDFTF</b>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p>i. made by a State or self-governing Territory; and</p> <p>ii. in force under a law of the State or self-governing Territory;</p> <p>if <b>satisfied</b> that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing; and</p> <p>(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 GOCDFTF will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 1995</i>.</p> <p>The management regime for the GOCDFTF was accredited in November 2004. DPI&amp;F has advised DEW of several minor amendments to the management regime for the GOCDFTF since 2004, the latest in November 2007. DEW considers that the amendments do not significantly affect the sustainability of the GOCDFTF and that a new Part 13 declaration is not required at this time.</p> <p>Currently, evidence suggests that the GOCDFTF has a relatively low number of interactions with listed threatened species, including marine turtles. Therefore, DEW considers the current operation of the GOCDFTF is not likely to adversely affect the survival or recovery in nature of any threatened species.</p>

<b>Division 2 Migratory species</b> <b>Section 222A Minister may accredit plans or regimes</b>	<b>DEW assessment of the GOCDFTF</b>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> <li>i. made by a State or self-governing Territory; and</li> <li>ii. in force under a law of the State or self-governing Territory;</li> </ul> <p>if <b>satisfied</b> that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed 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 GOCDFTF will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 1995</i>.</p> <p>The management regime for the GOCDFTF was accredited in November 2004. The management regime for the GOCDFTF was accredited in November 2004. DPI&amp;F has advised DEW of several minor amendments to the management regime for the GOCDFTF since 2004, the latest in November 2007. DEW considers that the amendments do not significantly affect the sustainability of the GOCDFTF and that a new Part 13 declaration is not required at this time.</p> <p>The report provided by DPI&amp;F indicates that there have been no reported interactions with migratory species in the GOCDFTF. Therefore, DEW considers the current operation of the GOCDFTF is not likely to adversely affect the survival or recovery in nature of any listed migratory species.</p>

<b>Division 3 Whales and other cetaceans</b> <b>Section 245 Minister may accredit plans or regimes</b>	<b>DEW assessment of the GOCDFTF</b>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <ul style="list-style-type: none"> <li>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is: <ul style="list-style-type: none"> <li>i. made by a State or self-governing Territory; and</li> <li>ii. in force under a law of the State or self-governing Territory;</li> </ul> </li> </ul> <p>if <b>satisfied</b> that:</p> <ul style="list-style-type: none"> <li>(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</li> <li>(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.</li> </ul>	<p>The GOCDFTF will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 1995</i>.</p> <p>The management regime for the GOCDFTF was accredited in November 2004. The management regime for the GOCDFTF was accredited in November 2004. DPI&amp;F has advised DEW of several minor amendments to the management regime for the GOCDFTF since 2004, the latest in November 2007. DEW considers that the amendments do not significantly affect the sustainability of the GOCDFTF and that a new Part 13 declaration is not required at this time.</p> <p>The report provided by DPI&amp;F indicates that there have been no reported interactions with cetaceans in the GOCDFTF. Therefore, DEW considers the current operation of the GOCDTFT is not likely to adversely affect the conservation status of a species of cetacean or a population of that species.</p>



<b>Division 4 Listed marine species</b> <b>Section 265 Minister may accredit plans or regimes</b>	<b>DEW assessment of the GOCDFTF</b>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <ul style="list-style-type: none"> <li>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is: <ul style="list-style-type: none"> <li>i. made by a State or self-governing Territory; and</li> <li>ii. in force under a law of the State or self-governing Territory;</li> </ul> </li> </ul> <p>if <b>satisfied</b> that:</p> <ul style="list-style-type: none"> <li>(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</li> <li>(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.</li> </ul>	<p>The GOCDFTF will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 1995</i>.</p> <p>The management regime for the GOCDFTF was accredited in November 2004. The management regime for the GOCDFTF was accredited in November 2004. DPI&amp;F has advised DEW of several minor amendments to the management regime for the GOCDFTF since 2004, the latest in November 2007. DEW considers that the amendments do not significantly affect the sustainability of the GOCDFTF and that a new Part 13 declaration is not required at this time.</p> <p>Currently, evidence suggests that the GOCDFTF only has minimal interactions with listed marine species (including syngnathids and seasnakes). Therefore, DEW considers the current operation of the GOCDFTF is not likely to adversely affect the conservation status of a listed marine species or a population of that species.</p>

## Part 13A

Section 303DC Minister may amend list	DEW assessment of the GOCDFTF
<p>(1) Minister may, by instrument published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <ul style="list-style-type: none"><li>(a) including items in the list;</li><li>(b) deleting items from the list; or</li><li>(c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or</li><li>(d) varying or revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or</li><li>(e) correcting an inaccuracy or updating the name of a species.</li></ul>	<p>The GOCDFTF approved WTO is already included on the List of Exempt Native Specimens, therefore no amendment to the list is required at this time.</p>

Section 303FN Approved wildlife trade operation	DEW assessment of the GOCDFTF
<p>(2) The Minister may, by instrument published in the <i>Gazette</i>, declare that a specified wildlife trade operation is an <b><i>approved wildlife trade operation</i></b> for the purposes of this section.</p>	
<p>(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is <b>satisfied</b> that:</p> <ul style="list-style-type: none"><li>(a) the operation is consistent with the objects of Part 13A of the Act; and</li></ul>	<p>The GOCDFTF is consistent with objects of Part 13A (listed after this table) as:</p> <ul style="list-style-type: none"><li>▪ the fishery will not harvest any Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) listed species;</li><li>▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1);</li><li>▪ the operation of the GOCDFTF is unlikely to be unsustainable and</li></ul>

<p>(b) the operation will not be detrimental to:</p> <ol style="list-style-type: none"> <li>i. the survival of a taxon to which the operation relates; or</li> <li>ii. the conservation status of a taxon to which the operation relates; and</li> </ol> <p>(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>threaten biodiversity within the next 3 years; and</p> <ul style="list-style-type: none"> <li>▪ the EPBC Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.</li> </ul> <p>DEW considers that the GOCDFTF will not be detrimental to the survival or conservation status of a taxon to which it relates within the next <b>3 years</b>, given the management measures currently in place, which include: limited entry, a total allowable catch for quota species, in-possession limits for some byproduct species, limits on the species which can be retained and gear restrictions.</p> <p>DEW considers that the GOCDFTF will not threaten any relevant ecosystem within the next <b>3 years</b>, given the management measures currently in place, which include: limited entry, a total allowable catch for quota species, in-possession limits for some byproduct species, limits on the species which can be retained and gear restrictions.</p> <p>The EPBC Regulations 2000 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 2000.</p>
<p>(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have <b>regard</b> to:</p> <ol style="list-style-type: none"> <li>(a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and</li> </ol>	<p>DEW considers that the GOCDFTF will not have a significant impact on any relevant ecosystem within the next <b>3 years</b>, given the management measures currently in place, which include: limited entry, a total allowable catch for quota species, in-possession limits for some</p>

<p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<p>byproduct species, limits on the species which can be retained and gear restrictions.</p> <p>The management arrangements that will be employed for the GOCDFTF are likely to be effective. A total allowable catch of 1250 t is set for quota species. In addition there are limits on the species that can be retained and in-possession limits for some byproduct species. A fisheries observer program is in place in the GOCDFTF, monitoring the catch of target species, byproduct, bycatch and protected species.</p>
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have <b>regard</b> to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or Territory concerned; and</p> <p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	<p>The GOCDFTF will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 1995</i>.</p> <p>The Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 1995</i> apply throughout Queensland waters.</p> <p>The management arrangements that will be employed for the GOCDFTF are likely to be effective. A total allowable catch of 1250 t is set for quota species. In addition there are limits on the species that can be retained and in-possession limits for some byproduct species. A fisheries observer program is in place in the GOCDFTF, monitoring the catch of target species, byproduct, bycatch and protected species.</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 GOCDFTF is a commercial fishery.</p>

<b>Section 303FR Public consultation</b>	<b>DEW assessment of the GOCDFTF</b>
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <ul style="list-style-type: none"> <li>(a) setting out the proposal to make the declaration; and</li> <li>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</li> <li>(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.</li> </ul>	<p>DEW 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 GOCDFTF a WTO and included the annual status reports, was released for public comment on 26 September 2007.</p>
<p>(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.</p>	<p>A public notice, which set out the proposal to declare the GOCDFTF a WTO and included the annual status reports was released for public comment on 26 September 2007 and closed on 26 October 2007, a total of 21 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>Three public comments were received. The DEW assessment has considered the public comments received on the submission.</p>

<b>Section 303FT Additional provisions relating to declarations</b>	<b>DEW assessment of the GOCDFTF</b>
<p>(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.</p>	<p>A declaration for the GOCDFTF will be made under section 303FN.</p>
<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"> <li>(a) during a particular period; or</li> <li>(b) while certain circumstances exist; or</li> <li>(c) while a certain condition is complied with.</li> </ul> <p>In such a case, the instrument of declaration is to specify the period, circumstances or condition.</p>	<p>The standard conditions applied to commercial fishery WTOs include:</p> <ul style="list-style-type: none"> <li>• operation in accordance with the management regime;</li> <li>• notifying DEW of changes to the management regime; and</li> <li>• annual reporting in accordance with the requirements of the Australian Government <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i>.</li> </ul> <p>The WTO instrument for the GOCDFTF specifies the standard and any additional conditions applied.</p>

(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 GOCDFTF made under sections 303FN and the conditions under section 303FT will be gazetted and made available on the DEW website.

## Part 16

<b>Section 391 Minister must consider precautionary principle in making decisions</b>	<b>DEW assessment of the GOCDFTF</b>
(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and/or section 303FN, to the extent he or she can do so consistently with the other provisions of this Act.	The precautionary principle must be considered when making a decision to include specimens on the LENS.
(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.	

## Objects of Part 13A

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

**Final recommendations to the Queensland Department of Primary Industries and Fisheries (DPI&F) for the Gulf of Carpentaria Developmental Finfish Fishery (GOCDFTF)**

The material submitted by DPI&F demonstrates that the management arrangements for the GOCDFTF meet most of the requirements of the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2<sup>nd</sup> Edition*. DEW recognises that the management arrangements in place, including: limited entry, a total allowable catch for quota species, in-possession limits for some byproduct species, limits on the species which can be retained and gear restrictions render it somewhat robust to fishing. As such, DEW considers that overall the management regime aims to ensure that fishing is conducted in a manner that does not lead to over-fishing and for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

While the fishery is relatively well managed, DEW has identified a number of risks and uncertainties that must be managed to ensure that impacts are minimised:

- a relatively high proportion of bycatch;
- an increasing take of mangrove jack;
- the incorporation of revised stock assessment outputs for red snappers into the management regime; and
- the need to revise the performance measures and reference points for protected species interactions.

DEW is satisfied that the fishery will not be detrimental to the survival or conservation status of the taxon to which it relates in the short term. Similarly, it is not likely to threaten any relevant ecosystem in the short term. To contain and minimise the risks in the longer term the recommendations listed below have been made. The key challenges for this fishery will be developing and trialling methods to reduce bycatch and further consideration of the management of mangrove jack. DEW considers that, until it can be demonstrated that these issues have been adequately dealt with, a 3 year Wildlife Trade Operation declaration is appropriate.

DEW considers that the operation of the fishery does not, or is not likely to, adversely affect the survival in nature of a listed threatened species or population of that species, or the conservation status of a listed migratory species, cetacean or listed marine species or a population of any of those species. DEW also considers that under the management plan operators are required to take all reasonable steps to avoid the killing or injuring of protected species, and the level of interaction under current fishing operations is low. While some changes have been made to permit conditions, no changes have been made to the accredited management regime since the initial assessment of the fishery in November 2004. For these reasons DEW considers that the existing Part 13 accreditation remains valid.

Unless a specific time frame is provided in the recommendation each recommendation must be addressed within the life of the declaration (3 years). Note that a standard condition of a WTO is an annual reporting requirement, the details of which are provided at the end of the recommendations.

**Table 4: Gulf of Carpentaria Developmental Finfish Trawl Fishery (GOCDFTF) Assessment– Summary of Issues, Conditions and Recommendations**

	Issue	WTO Condition
1	<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. In order to ensure that these decisions remain valid, the Department of the Environment and Water Resources (DEW) 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.</p>	<p><b>Condition 1:</b> Operation of the GOCDFTF will be carried out in accordance with the <i>Queensland Fisheries Act 1994</i> and the <i>Queensland Fisheries Regulation 1995</i>.</p> <p><b>Condition 2:</b> The Department of Primary Industries and Fisheries (DPI&amp;F) to inform DEW of any intended amendments to the management arrangements that may affect the criteria on which EPBC Act decisions are based.</p>
2	<p><u>Annual Reporting</u></p> <p>It is important that reports be produced and presented to DEW annually in order for the performance of the fishery and progress in implementing the recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration (3 years). Annual reports should follow Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> (the Guidelines) and include a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with protected species, impacts of the fishery on the ecosystem in which it operates, and progress in implementing DEW recommendations. Electronic copies of the Guidelines are available from the DEW website at</p> <p><a href="http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html">http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html</a></p>	<p><b>Condition 3:</b> DPI&amp;F to continue to produce and present reports to DEW annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2<sup>nd</sup> Edition</i>.</p>



	Issue	Recommendation
3	<p><u>Bycatch reduction</u></p> <p>The 2007 annual status report advises that the single observer trip undertaken in 2006 recorded 43% of the catch by weight as bycatch, predominately unmarketable finfish. The bycatch performance measures included in the draft Performance Measurement System (PMS), which are based on the recorded 2003 levels of bycatch, effectively allow the amount of bycatch to increase to 60% of total catch weight (40% finfish, 20% benthos) before being triggered. DEW is supportive of DPI&amp;F's commitment to develop a Bycatch Project Plan for the GOCDFTF, which will include development and trialling of various bycatch reduction devices and methods to improve the survivability of bycatch. DEW is concerned with the current bycatch levels in the GOCDFTF and therefore recommends that DPI&amp;F pursue a reduction in bycatch in the GOCDFTF.</p> <p>A primary concern of DEW with respect to the GOCDTFT is the potential capture of large bycatch species, such as marine turtles, sawfish and sharks. DEW notes that the observer data collected by the fishery to date suggests that while marine turtles are encountered in the fishery, interaction rates are moderately low. However, given the EPBC Act requirement to take all reasonable steps to avoid the killing or injuring of protected species, DEW recommends that DPI&amp;F, in consultation with the Gulf Fisheries Management Advisory Committee (Gulf MAC) trial bycatch reduction devices including, but not limited to, turtle excluder devices, prior to 30 June 2009.</p>	<p><b>Recommendation 1:</b> DPI&amp;F to pursue a reduction in bycatch in the GOCDFTF. DPI&amp;F, in consultation with GulfMAC to trial bycatch reduction devices, including turtle excluder devices, in the GOCDFTF by 30 June 2009.</p>
4	<p><u>Increased harvest of mangrove jack</u></p> <p>The Ecological Risk Assessment (ERA) undertaken by DPI&amp;F for the suite of Gulf of Carpentaria fisheries (DPI&amp;F, 2006) gave a 'low' risk rating to mangrove jack in the GOCDFTF. At this time the total annual catch of mangrove jack across the Gulf of Carpentaria and the Northern Territory was estimated to be 40 t. DEW is concerned that since the ERA was undertaken the catch of mangrove jack has significantly increased in the GOCDFTF (71 t in 2006). This equates to a 90%</p>	<p><b>Recommendation 2:</b> DPI&amp;F to review available data on mangrove jack reproduction, size and spatial distribution in the Gulf of Carpentaria and investigate appropriate management responses to ensure current harvest levels are sustainable.</p>

	<p>increase from 2003 catch levels. DPI&amp;F advises that the proportion of the total catch comprised of mangrove jack decreased from 18% in 2002 to 12% in 2006. Since 1999, mangrove jack has been the third most dominant species harvested in the GOCDFTF by weight. Given the recent increase in catch however, DEW considers DPI&amp;F should review the data available on mangrove jack and investigate appropriate management responses to ensure harvest levels are sustainable.</p>	
5	<p><u>Accounting for all removals in stock assessments</u></p> <p>DPI&amp;F recognises that illegal, unregulated and unreported (IUU) fishing in Gulf of Carpentaria waters represents a serious threat to the sustainability of northern Australian fisheries and that a greater understanding of such activities is needed to ensure the future sustainability of northern Australian fish stocks. DEW recommends that precautionary management of the GOCDFTF should take into account estimates of the level of take from this source. DPI&amp;F has been collaborating with the Commonwealth and Northern Territory and Western Australian governments on this issue and DEW commends DPI&amp;F for being proactive. Once estimates of the level of take from IUU fishing are available, these should be taken into account in setting catch limits for the fishery.</p> <p>DEW commends DPI&amp;F for the work undertaken to date on obtaining recreational fishing data for Queensland. Given the significant recreational take of some GOCDFTF species, such as mangrove jack, red emperor and sweetlip species, DEW recommends that DPI&amp;F should continue work on improving the RFISH data and on gathering Indigenous catch estimates to be taken into account in setting catch limits for the fishery.</p>	<p><b>Recommendation 3:</b> DPI&amp;F to continue to improve estimates of recreational and Indigenous harvest. Once available, DPI&amp;F to take estimates of IUU fishing, recreational and Indigenous harvests into account in setting catch limits to mitigate any risks identified.</p>
6	<p><u>Protected species performance measures and reference points</u></p> <p>The draft PMS for the GOCDFTF includes a protected species performance measure related to a significant increase in the catch of threatened, endangered and protected species. DEW is concerned that this performance measure assumes that</p>	<p><b>Recommendation 4:</b> DPI&amp;F to incorporate revised performance measures and reference points related to minimising protected species</p>

<p>the current level of protected species interactions is acceptable. In addition, no reference points have been developed to illustrate how this measure would currently be assessed.</p> <p>DEW recommends that DPI&amp;F revises the current performance measure for protected species and develop appropriate reference points to ensure that the GOCDFTF is working towards minimising protected species interactions, by 30 December 2008.</p>	<p>interactions in the Performance Measurement System for the GOCDFTF by 30 December 2008.</p>
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## References

Caton, A. and McLoughlin, K. (eds) (2004) *Fishery Status Reports 2004: Status of Fish Stocks Managed by the Australian Government*. Bureau of Rural Sciences, Canberra.

Department of the Environment and Heritage. 2004. *Assessment of the Gulf of Carpentaria Developmental Finfish Trawl Fishery*.

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## Acronyms

BRD	Bycatch reduction device
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CPUE	Catch per unit effort
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEH	Department of the Environment and Heritage (now DEW)
DEW	Department of the Environment and Water Resources
DPI&F	Department of Primary Industries and Fisheries
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPBC Regulations	<i>Environment Protection and Biodiversity Conservation Regulations 2000</i>
ERA	Ecological Risk Assessment
FOP	Fisheries Observer Program
GOC	Gulf of Carpentaria
GOCDFTF	Gulf of Carpentaria Developmental Finfish Trawl Fishery
GulfMAC	Gulf Management Advisory Committee
IUU	Illegal, unregulated and unreported
LTMP	Long Term Monitoring Program
MOU	Memorandum of Understanding
NAFM	Northern Australian Fisheries Management Forum
nm	Nautical miles
NT	Northern Territory
PMS	Performance Measurement System

QLD	Queensland
RFISH	Recreational fishing information program
SOCI	Species of Conservation Interest
t	tonnes
TAC	Total allowable catch
TED	Turtle excluder device
TEP	Threatened, endangered and protected
WA	Western Australia
WTO	Wildlife Trade Operation