



Australian Government

Department of Sustainability, Environment, Water, Population and Communities

Assessment of the
**Queensland Gulf of Carpentaria Developmental Fin
Fish Trawl Fishery**

NOVEMBER 2010

© Commonwealth of Australia 2010

This work is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced by any process without prior written permission from the Commonwealth, available from the Department of Sustainability, Environment, Water, Population and Communities. Requests and inquiries concerning reproduction and rights should be addressed to:

Assistant Secretary
Marine Biodiversity Policy Branch
Department of Sustainability, Environment, Water, Population and Communities
GPO Box 787
Canberra ACT 2601

Disclaimer

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 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 Sustainability, Environment, Water, Population and Communities or the Australian Government.

While reasonable efforts have been made to ensure that the contents of this report are factually correct, the Australian Government does not accept responsibility for the accuracy or completeness of the contents, and shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of this report. You should not rely solely on the information presented in the report when making a commercial or other decision.

Table 1: Summary of the Gulf of Carpentaria Developmental Fin Fish Trawl Fishery (GOCDFTF)

Publicly available information relevant to the fishery	<ul style="list-style-type: none"> • Queensland <i>Fisheries Act 1994</i> • Queensland <i>Fisheries Regulation 2008</i> • Annual Status Report 2008 – Queensland Gulf of Carpentaria Developmental Fin Fish Trawl Fishery (Department of Primary Industries and Fisheries). • Annual Status Report 2009 – Gulf of Carpentaria Developmental Fin Fish Trawl Fishery (Department of Primary Industries and Fisheries). • Annual Status Report 2010 – Gulf of Carpentaria Developmental Finfish Trawl Fishery (Department of Primary Industries and Fisheries). • Progress against DEWHA conditions and recommendations – Queensland Gulf of Carpentaria Developmental Fin Fish Trawl Fishery – 2009 (Department of Employment, Economic Development and Innovation). • Progress against DEWHA conditions and recommendations – Queensland Gulf of Carpentaria Developmental Fin Fish Trawl Fishery – 2010 (Department of Employment, Economic Development and Innovation). • Assessment of the Gulf of Carpentaria Developmental Finfish Trawl Fishery, November 2007 (Department of the Environment and Water Resources). • Assessment of the Gulf of Carpentaria Developmental Finfish Trawl Fishery, November 2004 (Department of the Environment and Heritage).
Area	Northern Gulf of Carpentaria waters from 25 nautical miles (nm) off the coast to the edge of the Australian Fishing Zone. The western edge is bounded by the Queensland/Northern Territory sea border.
Fishery status	<p>The stock status for red snapper in the Gulf of Carpentaria was estimated by Fisheries Queensland as ‘uncertain’ in 2010.</p> <p>Fisheries Queensland has advised that sustainable yield estimates are currently being revised. Fisheries Queensland considers that the current catch level (744 tonnes (t)) combined catch of crimson snapper, saddletail snapper and red emperor is likely to be sustainable based on historical estimates of maximum sustainable yield (MSY) (2900-9000t).</p>
Target Species	<p>Quota species include:</p> <ul style="list-style-type: none"> - 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>Information on the biology of these species can be found in the 2004 assessment of the fishery located on the department’s website.</p>

Byproduct Species	<p>Approximately 19% of the total landed catch in 2009 was byproduct. Byproduct is predominantly other snappers and emperors.</p> <p>Main byproduct species include:</p> <ul style="list-style-type: none"> - mangrove jack (<i>Lutjanus argentimaculatus</i>); - golden snapper (<i>Lutjanus johnii</i>); and - goldband snapper (<i>Pristipomoides</i> spp).
Gear	The GOCDFTF targets demersal scalefish using an otter trawl net. The net design is recognised as causing minimal damage to the seafloor, generally riding 0.3 – 0.4 metres off the bottom.
Season	Year round.
Commercial harvest 2009	<p>Total commercial harvest of 744t, including 622t of quota species (crimson snapper comprised 46% of total catch by weight, saddletail snapper comprised 31% of total catch by weight).</p> <p>Byproduct species make up 19% of the total catch. Mangrove jack comprised 6.7% of total catch by weight.</p>
Value of commercial harvest 2009	Approximately \$4.9 million.
Take by other sectors	<p>Recreational and Indigenous catch is likely to be negligible.</p> <p>Stocks of snapper and emperor are shared between Queensland and the Northern Territory. In 2009, the Northern Territory Finfish Trawl Fishery and the Northern Territory Demersal Fishery landed 1114t and 505t respectively, though the area of these fisheries is not limited to the Gulf of Carpentaria.</p>
Commercial licences issued	Two permits were issued in 2009, which both accessed the fishery.
Management arrangements	<p>Under an Offshore Constitutional Settlement between the Australian Government and the Queensland Government, the fishery is managed by Fisheries Queensland under the Queensland <i>Fisheries Act 1994</i>, and <i>Fisheries Regulation 2008</i>.</p> <p>Management arrangements include input and output controls, including:</p> <ul style="list-style-type: none"> • limited entry; • a total allowable catch (TAC) for quota species; • in-possession limits for some byproduct species; • 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). • a defined fishery area; • gear restrictions; and • size limits.
Export	Product is currently sold on the domestic market.

Bycatch	A single observer trip (nine days) undertaken in 2009 estimated that 34% of the catch by weight was discarded. This bycatch was comprised of unmarketable finfish and invertebrates (31%), sharks and rays (3%) and benthos (0.03%).
Interaction with Protected Species	<p>A low level of interaction with sawfish, marine turtles, sea snakes and syngnathids has historically been reported, although catch levels are largely not validated.</p> <p>Species of Conservation Interest (SOCI) logbooks were in place during the 2009 fishing season. No SOCI interactions were reported by operators in 2009. A single observer trip (nine days) was conducted in 2009. No protected species interactions were recorded during this trip, however this may be partly due to observers being present on the vessel during a bycatch reduction device (BRD) trial.</p> <p>A Memorandum of Understanding between Fisheries Queensland and the department for the Reporting of Fisheries Interactions with Protected Species (Reporting MOU) is in place. The Reporting MOU effectively streamlines 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>
Ecosystem Impacts	The nets used in the GOCDFFTF 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 reducing 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 GOCDFFTF. BRDs have also been trialled in the fishery, which has shown a significant reduction in chondrichthyan and benthos bycatch.

Table 2: Progress in implementation of conditions and recommendations made in the 2007 assessment of the GOCDFTF

Condition	Progress	Recommended Action
1: Operation of the GOCDFTF will be carried out in accordance with the <i>Queensland Fisheries Regulation 2008</i> and the <i>Fisheries Act 1994</i> .	The GOCDFTF continues to be managed in accordance with the <i>Queensland Fisheries Regulation 2008</i> and the <i>Queensland Fisheries Act 1994</i> .	This condition is ongoing and will remain as a recommendation for a further five years (see Recommendation 1 , Table 4).
2: The Department of Primary Industries and Fisheries (DPI&F) to inform DEW of any intended amendments to the management arrangements that may affect the criteria on which EPBC Act decisions are based.	Fisheries Queensland has advised the department of changes to management arrangements that may affect the criteria on which <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) decisions are based. This included a relatively small and temporary (single fishing year) extension to the area of the fishery for the purposes of a trawl survey.	This condition is ongoing and will remain as a recommendation for a further five years (see Recommendation 2 , Table 4).
3: DPI&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 - 2nd Edition</i> .	Fisheries Queensland has presented annual reports to the department, which include annual status reports for the fishery and a summary of progress against the department's conditions and recommendations.	This condition is ongoing and will remain as a recommendation for a further five years (see Recommendation 3 , Table 4).

Recommendations	Progress	Recommended Action
<p>1: DPI&F to pursue a reduction in bycatch in the GOCDFTF. DPI&F, in consultation with GulfMAC to trial bycatch reduction devices, including turtle excluder devices, in the GOCDFTF by 30 June 2009.</p>	<p>Fisheries Queensland reports that bycatch reduction devices (BRD), including turtle excluder devices and square mesh codends, were trialled by the two operators in the fishery in 2009. An observer was on board one of the vessels for a single trip (nine days), reporting that a correctly fitted BRD was effective in reducing capture of large sharks, rays and fish. Benthos landed on deck was also reduced and no turtle interactions were observed.</p> <p>The proportion of bycatch (34%) on this trip was within the performance measure ($\leq 40\%$) set out in the Performance Measurement System (PMS), however overall recorded bycatch (including BRD trials and fishing without BRDs) for the fishery was similar (36%).</p> <p>The department notes that Fisheries Queensland proposes further trials of BRDs prior to implementation in the fishery. The designs trialled in the GOCDFFTF and the Northern Territory Finfish Trawl Fishery have demonstrated an identifiable reduction of large bycatch animals and benthos. Given the positive preliminary results of the trial and considering that most of the adjacent trawl fisheries have implemented BRDs, the department considers that Fisheries Queensland should implement an appropriate BRD design across the GOCDFFTF as a priority. Further trials should be conducted in a scientific manner with timely implementation of an effective BRD across the fishery being the key objective of the trial.</p>	<p>The department considers this recommendation has been met. The department recommends that Fisheries Queensland develop clear methodology for further net trials, with a key objective being timely implementation of BRDs across the fishery (see Recommendation 4, Table 4).</p>

Recommendations	Progress	Recommended Action
<p>2: DPI&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>Fisheries Queensland reviewed the Ecological Risk Assessment (ERA) for Queensland managed fisheries in the Gulf of Carpentaria in 2009/10. The review included consideration of the risks from fishing to mangrove jack, including consideration of catch data and biological information since the initial ERA in 2004. The risk assigned to mangrove jack remained unchanged from the 2004 ERA (low).</p> <p>The preliminary results from a Fisheries Research and Development Corporation funded project (2009/037) to determine new reference points for tropical red snappers, indicate strong variance in local abundance of mangrove jack. The most significant areas of high abundance occur in the eastern area of the fishery. The department also notes that the catch for mangrove jack catch has decreased in both volume and proportion of the total catch since 2005, as catch of the primary target species has consolidated.</p>	<p>The department considers this recommendation has been met.</p>
<p>3: DPI&F to continue to improve estimates of recreational and Indigenous harvest. Once available, DPI&F to take estimates of IUU fishing, recreational and Indigenous harvests into account in setting catch limits to mitigate any risks identified.</p>	<p>Fisheries Queensland has commenced a state-wide recreational fishing survey, expected to be completed by late 2011. The department recommends that the results of this survey relevant to the GOCDFTF be incorporated into stock assessments to ensure that total harvest levels are sustainable.</p> <p>Fisheries Queensland has also reported that illegal, unreported and unregulated (IUU) fishing has decreased since 2006. Fisheries Queensland has indicated that information on IUU fishing will be incorporated into future resource assessments for the GOCDFTF.</p>	<p>The department supports this approach.</p>

Recommendations	Progress	Recommended Action
<p>4: DPI&F to incorporate revised performance measures and reference points related to minimising protected species interactions in the Performance Measurement System for the GOCDFTF by 30 December 2008.</p>	<p>Fisheries Queensland has incorporated in the Performance Measurement System a performance measure aimed at actively reducing protected species interactions in the fishery. Performance measures are reported against in annual status reports for the fishery.</p>	<p>The department considers this recommendation has been met.</p>

Table 3: The Department of Sustainability, Environment, Water, Population and Communities assessment of the Gulf of Carpentaria Developmental Fin Fish Trawl Fishery (GOCDFFTF) against the requirements of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) related to decisions made under Parts 13 and 13A

Please Note – the table below is not a complete or exact representation of the EPBC Act. It is intended as a summary of relevant sections and components of the EPBC Act to provide advice on the fishery in relation to decisions under Parts 13 and 13A. A complete version of the EPBC Act can be found on the department's website.

Part 13

Division 1 Listed threatened species Section 208A Minister may accredit plans or regimes	The department's assessment of the GOCDFFTF
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed 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 GOCDFFTF will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p>The management regime for the GOCDFFTF was accredited in November 2004 and reaccredited in April 2008 following the replacement of the Queensland <i>Fisheries Regulation 1995</i> with the <i>Fisheries Regulation 2008</i>. Since the initial accreditation, extensive trials of bycatch reduction devices have been carried out by operators in the fishery which have demonstrated an identifiable reduction of large bycatch animals and benthos.</p> <p>In order to satisfy section 208(A) (d), the department considers a new Part 13 accreditation should specify a condition requiring Fisheries Queensland to implement appropriate bycatch reduction devices as an operational requirement in the GOCDFFTF by September 2012.</p> <p>Currently, evidence suggests that the GOCDFFTF has a relatively low number of interactions with listed threatened species, including marine turtles. The department considers the current operation of the GOCDFFTF is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>

Part 13 (cont.)

<p>Division 2 Migratory species Section 222A Minister may accredit plans or regimes</p>	<p>The department's assessment of the GOCDFFTF</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed migratory species or a population of that species.</p>	<p>The GOCDFFTF will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p>The management regime for the GOCDFFTF was accredited in November 2004 and reaccredited in April 2008 following the replacement of the Queensland <i>Fisheries Regulation 1995</i> with the <i>Fisheries Regulation 2008</i>. Since the initial accreditation, extensive trials of bycatch reduction devices have been carried out by operators in the fishery which have demonstrated an identifiable reduction of large bycatch animals and benthos.</p> <p>In order to satisfy section 222(A), the department considers a new Part 13 accreditation should specify a condition requiring Fisheries Queensland to implement appropriate bycatch reduction devices as an operational requirement in the GOCDFFTF by September 2012.</p> <p>Currently, evidence suggests that the GOCDFFTF has a relatively low number of interactions with migratory species, including marine turtles. The department considers the current operation of the GOCDFFTF is not likely to adversely affect the survival or recovery in nature of any migratory species.</p>

Part 13 (cont.)

<div> <div>Division 3 Whales and other cetaceans</div> <div>Section 245 Minister may accredit plans or regimes</div> </div>	<div> <div>The department's assessment of the GOCDFFTF</div> </div>
<div> <div>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</div> <div> <div>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</div> <div> <div>i. made by a State or self-governing Territory; and</div> <div>ii. in force under a law of the State or self-governing Territory;</div> </div> </div> <div>if satisfied that:</div> <div> <div>(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</div> <div>(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.</div> </div> </div>	<div> <div>The GOCDFFTF will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</div> <div>The management regime for the GOCDFFTF was accredited in November 2004 and reaccredited in April 2008 following the replacement of the Queensland <i>Fisheries Regulation 1995</i> with the <i>Fisheries Regulation 2008</i>. Since the initial accreditation, extensive trials of bycatch reduction devices have been carried out by operators in the fishery which have demonstrated an identifiable reduction of large bycatch animals and benthos.</div> <div>In order to satisfy section 245, the department considers a new Part 13 accreditation should specify a condition requiring Fisheries Queensland to implement appropriate bycatch reduction devices as an operational requirement in the GOCDFFTF by September 2012.</div> <div>Currently, evidence suggests that the GOCDFFTF has a relatively low number of interactions with whales and other cetaceans. The department considers the current operation of the GOCDFFTF is not likely to adversely affect the survival or recovery in nature of any whales and other cetaceans.</div> </div>

Part 13 (cont.)

Division 4 Listed marine species Section 265 Minister may accredit plans or regimes	The department's assessment of the GOCDFFTF
<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 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 GOCDFFTF will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p>The management regime for the GOCDFFTF was accredited in November 2004 and reaccredited in April 2008 following the replacement of the Queensland <i>Fisheries Regulation 1995</i> with the <i>Fisheries Regulation 2008</i>. Since the initial accreditation, extensive trials of bycatch reduction devices have been carried out by operators in the fishery which have demonstrated an identifiable reduction of large bycatch animals and benthos.</p> <p>In order to satisfy section 265, the department considers a new Part 13 accreditation should specify a condition requiring Fisheries Queensland to implement appropriate bycatch reduction devices as an operational requirement in the GOCDFFTF by September 2012.</p> <p>Currently, evidence suggests that the GOCDFFTF has a relatively low number of interactions with listed marine species. The department considers the current operation of the GOCDFFTF is not likely to adversely affect the survival or recovery in nature 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 GOCDFFTF
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	The department recommends that GOCDFFTF 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.	To satisfy the requirements of sections 208A, 222A, 245 or 265 we recommend that accreditation of the management regime for the GOCDFFTF under Part 13 specify a condition requiring Fisheries Queensland to implement appropriate bycatch reduction devices as an operational requirement in the GOCDFFTF. The Part 13 instrument for the GOCDFFTF specifies this condition.
(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**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.

Section 303DC Minister may amend list	The department's 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"> (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 or 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>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <ul style="list-style-type: none"> (a) must consult such other Minister or Ministers as the Minister considers appropriate; and (b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and (c) may consult such other persons and organisations as the Minister considers appropriate. 	<p>The public comment period on the Fisheries Queensland submission sought comment on the annual reports/submission for the GOCDFTF and provided sufficient opportunity for consultation with other persons and organisations.</p> <p>A letter to the Hon Tim Mulherin MP, Minister for Primary Industries, Fisheries and Rural and Regional Queensland, advises him of the intention to declare the fishery exempt from the export provisions of the EPBC Act.</p>
<p>(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.</p>	<p>The instrument for the GOCDFTF made under section 303DC will be gazetted and made available on the department's website.</p>

Part 16

Section 391 Minister must consider precautionary principle in making decisions	The department's assessment of the GOCDFTF
<p>(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.</p>	<p>The precautionary principle has been considered when making a decision to include specimens in the List of Exempt Native Specimens.</p>
<p>(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.</p>	

Final recommendations to Fisheries Queensland for the Gulf of Carpentaria Developmental Fin Fish Trawl Fishery (GOCDFFTF)

The material submitted by Fisheries Queensland indicates that the GOCDFFTF operates in accordance with the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition*. The department considers that the fishery is well managed and unlikely to have an unacceptable or unsustainable impact on the environment over the next five years. Overall, the department recognises that the management arrangements, including: limited entry, total allowable catch limits for quota species, minimum size limits and gear restrictions are conservative and suggest that the fishery is being managed in an ecologically sustainable way.

In making its assessment, the department considers that the range of management measures are sufficient to ensure that the fishery is conducted in a manner that does not lead to over-fishing and that stocks are not currently overfished. Taking into account the management arrangements that minimise impact on the target species (for example total allowable catch limits, minimum size limits and gear restrictions) the department considers that fishing operations are managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

The department 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 in Table 4 have been made. The department believes that product taken in the fishery should be exempt from the export controls of Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), with that exemption to be reviewed in five years.

The department 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. The department also considers that under the management regime operators are required to take all reasonable steps to avoid the killing or injuring of protected species, and the level of interactions under current fishing operations is low.

The management regime for the GOCDFFTF was first accredited under Part 13 of the EPBC Act in November 2004 and further accredited in April 2008. Since the last assessment, fishers have trialled the use of bycatch reduction devices, which have included turtle excluder devices and modified codends. These are likely to further reduce the risk of interactions with protected species in the fishery, particularly with marine turtles and sea snakes. The department therefore believes that it is appropriate to reaccredit the management regime for the fishery under Part 13 of the EPBC Act, subject to a condition to implement appropriate bycatch reduction device as an operational requirement in the GOCDFFTF by September 2012.

Recommendations are provided in Table 4 with a brief explanation of the related issue/intent. Unless a specific time frame is provided in the recommendation each recommendation must be addressed within the life of the declaration (5 years).

Table 4: GOCDEFTF Assessment – Summary of Issues, Conditions and Recommendations, November 2010

	Issue	Recommendation
1	<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 regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on by-product, bycatch, protected species or the ecosystem.</p>	<p>Recommendation 1</p> <p>Operation of the Gulf of Carpentaria Developmental Fin Fish Trawl Fishery will be carried out in accordance with the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p>Recommendation 2</p> <p>Fisheries Queensland to inform the Department of Sustainability, Environment, Water, Population and Communities of any intended amendments to the management arrangements that may affect the criteria on which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are based.</p>
2	<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 recommendations resulting from the previous accreditation of the fishery</p> <p>For a complete description of annual reporting requirements, see Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> available from the department's website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html.</p>	<p>Recommendation 3</p> <p>Fisheries Queensland to produce and present reports to the Department of Sustainability, Environment, Water, Population and Communities annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p>

<p>3 <u>Bycatch Reduction Devices</u></p> <p>Bycatch in the GOCDFFTF in 2009 was reported as 36 per cent (by weight) fish and invertebrates. No interactions with marine turtles, sea snakes or other protected species were reported or observed in 2009. However, a low number of narrow sawfish, sea snakes and marine turtles have historically been caught in the fishery.</p> <p>In the previous assessment of the GOCDFFTF, the department recommended that bycatch reduction devices (BRDs) be trialled in the fishery, aimed at reducing both general bycatch and the risk of interactions with marine turtles. The department also raised concerns about the performance measures for bycatch, which allowed a relatively large proportion of bycatch (40 per cent of total weight for finfish bycatch, 20 per cent of total weight of benthos).</p> <p>Fisheries Queensland has indicated that operators in the GOCDFFTF have trialled BRDs, including turtle excluder devices (TEDs) and square mesh codends. Similar BRDs have been trialled in Northern Territory Finfish Trawl Fishery. Preliminary results in the GOCDFFTF are promising, with the single observer trip in 2009 showing that, with a BRD fitted, sharks and rays comprised three per cent of the catch, and benthos 0.03 per cent of the catch. No interactions with marine turtles were observed.</p> <p>The department acknowledges that operators in the GOCDFFTF have voluntarily used BRDs, however a design has not been settled on for implementation as a permit condition. The department also recognises that development and implementation of BRDs has been funded by industry. To date, however, trials of BRDs have been unstructured, without methodology to assess effectiveness of particular designs. One trip was observed by an independent observer, however there was no comparison between BRD designs or non-BRD fitted nets. The department recommends that Fisheries Queensland conduct a structured trial of BRDs.</p> <p>Given the risk of interactions with sea snakes, marine turtles and sawfish in the GOCDFFTF, the department requires that Fisheries Queensland, taking into consideration the results of BRD trials, implement appropriate BRD requirements as a condition of entry to the fishery.</p>	<p>Recommendation 4</p> <p>Fisheries Queensland to:</p> <ul style="list-style-type: none"> a) continue to implement measures to reduce bycatch; and b) complete, by June 2012, a structured trial of bycatch reduction devices, including methodology to assess the effectiveness of devices trialled. <p>Part 13 Condition</p> <p>Fisheries Queensland, by September 2012, taking into consideration the results of bycatch reduction trials, to implement appropriate bycatch reduction devices as an operational requirement in the Gulf of Carpentaria Developmental Fin Fish Trawl Fishery.</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

4	<p><u>Stock Management and Research</u></p> <p>Operators in the GOCDFFTF primarily target crimson and swallowtail snapper, and retain several other species of tropical snapper and emperor. Stocks of these species are thought to be shared across northern Australia, between Western Australia, Northern Territory and Queensland.</p> <p>The most recent stock assessment performed for tropical snapper species across northern Australia occurred in 1994. The current total allowable catch (TAC) for the GOCDFFTF is set at 1,250t, well below the estimated Maximum Sustainable Yield (MSY) for the Gulf of Carpentaria (2900 – 9000t). Other fisheries that may target tropical snapper in the Gulf of Carpentaria include the Northern Territory Finfish Trawl Fishery and the Northern Territory Demersal Fishery. Total catch (including byproduct) in these fisheries in 2009 was 1114t and 505t respectively. The area of these fisheries is not limited to the Gulf of Carpentaria, which comprises a relatively small proportion of potential fishing grounds.</p> <p>In spite of the TAC for the GOCDFFT being significantly below the estimated MSY, Fisheries Queensland consider stock status to be uncertain due to the lack of a recent stock assessment for tropical snappers in the Gulf of Carpentaria.</p> <p>Fisheries Queensland participate in the Northern Australian Fishery Managers Forum, which has identified the completion of a stock assessment for red snapper as a high priority.</p> <p>Fisheries Queensland is also leading a Fisheries Research and Development Corporation funded project (2009/037) ‘<i>Sustaining productivity of tropical red snappers using new monitoring and reference points</i>’. This project aims to assess current fishery dependant data and provide a framework for monitoring programs, including independent data collection to feed into stock assessments. The department expects that the outcomes of this project will reduce uncertainty in tropical red snapper stocks and enable assessment of the current harvest levels in relation to the available biomass.</p> <p>According to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>, reliable estimates of all removals, including recreational and Indigenous sectors should be factored into stock assessments and target species catch allocations.</p>	<p>Recommendation 5</p> <p>Fisheries Queensland to continue to cooperate with other relevant jurisdictions to pursue complementary research and management of shared stocks for target and byproduct species that may be affected by cross-jurisdictional issues.</p>
---	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Acronyms

BRD	Bycatch Reduction Device
DEWHA	Australian Government Department of the Environment, Water, Heritage and the Arts
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ERA	Ecological Risk Assessment
FRDC	Fisheries Research & Development Corporation
GOCDFFTF	Queensland Gulf of Carpentaria Developmental Fin Fish Trawl Fishery
MOU	Memorandum of Understanding
MSY	Maximum Sustainable Yield
nm	nautical mile(s)
PMS	Performance Management System
SOCI	Species of Conservation Interest
t	tonne(s)
TAC	Total Allowable Catch