



Queensland

Fisheries Legislation Amendment and Repeal Regulation (No. 1) 2011

Regulatory Impact Statement for SL 2011 No. 236

made under the

Fisheries Act 1994

Management arrangements for the Gulf of Carpentaria Inshore Fin Fish Fishery Regulatory Impact Statement

PR10-4962

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Have your say

Fisheries Queensland—part of the Department of Employment, Economic Development and Innovation (DEEDI)—is reviewing the Gulf of Carpentaria Inshore Fin Fish Fishery due in part to the impending expiry of the Fisheries (Gulf of Carpentaria Inshore Fin Fish) Management Plan 1999. The opportunity has also been taken to review the provisions of the Fisheries Regulation 2008 relevant to the management of the fishery.

Fisheries Queensland values the input of stakeholders in developing fisheries management arrangements and dealing with the complex suite of issues relating to sustainable use of fisheries resources.

Commercial, recreational, charter and Indigenous fishers, and marketers will all benefit from the ongoing sustainable management of the fishery. Other stakeholders (such as chandlers, fuel and freight suppliers, tourism operators and conservationists) have an interest in the fishery, but it is not anticipated that they will be adversely affected by the adoption of any of the proposals outlined in this Regulatory Impact Statement (RIS).

Commercial and recreational fishing sectors, supporting industries (such as marketers) and representatives from Indigenous and conservation interest groups have been consulted regarding a wide range of management issues. The consultation included:

- an issues and options paper (for a consultation period from 23 September to 30 October 2009)
- port meetings in Cairns (27 September 2009), Karumba (28 September 2009) and Weipa (1 October 2009), undertaken within the consultation period
- meetings of an expertise-based technical working group held in November and December 2009 to analyse responses to the issues and options paper and provide advice on options
- a series of informal consultations with the Gulf Fishermen's Association and the Queensland Seafood Industry Association between November 2009 and February 2010 to refine preferred options for the commercial fishing sector.

The objectives of this review are to ensure continued ecologically sustainable development of the fishery that achieves:

- a fair allocation of fisheries resources between all users
- a profitable commercial fishery
- maximum benefits for the community while ensuring minimal impacts on the fishery, other fisheries or the environment
- resolution of a number of specific management issues affecting the fishery.

A large number of current management arrangements already achieve these objectives. There are no changes proposed for these arrangements and therefore they are not discussed in detail in this RIS. These arrangements include but are not limited to:

- other netting restrictions including net drop and marking requirements
- spatial and temporal netting closures
- requirements relating to vessel monitoring systems.

A brief summary of the arrangements that will continue to apply is provided in Appendix 2 of this RIS; however, interested persons should consult the Fisheries Regulation 2008 and Fisheries (Gulf of Carpentaria Inshore Fin Fish) Management Plan 1999 for further details if required. Comments can be provided via an online questionnaire at www.getinvolved.qld.gov.au, or by submitting a response form to Fisheries Queensland by post, fax or email.

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Copies of the response form will be sent to all key stakeholders with this RIS or can be downloaded from the DEEDI website at www.deedi.qld.gov.au

Please complete the online questionnaire or submit your response form by 5 pm, Monday 1 November 2010.

Fisheries Queensland will consider the responses received and may consult further before developing a final position.

The implementation of any new management arrangements is expected to commence in 2011.

The Queensland Government has recently been very proactive in reforming the openness of government. There are a number of ways that you can be actively involved in the process of government and the Queensland Government expressly encourages you to comment on and have your say on issues that may be directly affecting you or your local communities via the www.qld.gov.au website. The Queensland Government, through its recent Right to Information reforms, has made a commitment to provide access to information held by the government, and this includes proactive release of information by the government.

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Introduction

Purpose of this Regulatory Impact Statement

A Regulatory Impact Statement (RIS) provides a mechanism by which the government's policy deliberations and proposed legislative actions are clearly documented and subject to public scrutiny.

Under the *Statutory Instruments Act 1992* (Qld), if proposed regulation is likely to impose appreciable costs on the community or part of the community, a RIS must be prepared by government before the regulation is made.

Costs are defined under the *Statutory Instruments Act* as including:

- burdens and disadvantages
- direct and indirect economic, environmental and social costs.

The purpose of a RIS is to determine whether or not a proposed regulation is the most efficient or effective way of achieving the desired policy objectives. It does this by explaining the need for the proposed legislation and presents the costs and benefits that are likely to be experienced if the legislation is adopted.

Submissions are invited from the community, stakeholders and other interested parties on the proposals contained in this RIS. Guidelines on how to comment are available in the 'Have your say' section at the beginning of this RIS.

Developing fisheries laws

Authorising law

The proposed legislation will be made under the provisions of the *Fisheries Act 1994* (Qld). Section 42 of the *Fisheries Act* details what can be declared in a Regulation and section 223 of the *Fisheries Act* gives the Governor in Council the power to make Regulations.

Main purpose of the Act

The main purpose of the *Fisheries Act* is to provide for the use, conservation and enhancement of the community's fisheries resources and fish habitats in a way that seeks to:

- a) apply and balance the principles of ecologically sustainable development
- b) promote ecologically sustainable development.

The principles of ecologically sustainable development referred to above include issues such as intergenerational equity, protection of biodiversity, the enhancement of social and community wellbeing and the precautionary principle.

Consistency within legislative requirements

Legislative intent

Due to the complex inter-relationships between elements of the management framework within the *Fisheries (Gulf of Carpentaria Inshore Fin Fish) Management Plan 1999* and the *Fisheries Regulation 2008*, it is proposed that the new and amended legislation for the fishery will be incorporated into the Regulation rather than being kept in a separate Management Plan. While this approach will increase the size of the Regulation, the total amount of fisheries legislation will be significantly reduced as the Management Plan will be abolished and the duplications that existed between the Management Plan and Regulation will no longer be necessary.

It is intended that new and amended management arrangements for commercial fisheries in the Gulf of Carpentaria will be provided in the Regulation.

Consistency with authorising law

Implementation of the proposed amendments will be consistent with the objectives of the *Fisheries Act* by providing an improved management framework for the fishery and replacing the expiring Management Plan.

Consistency with other legislation and authorities

The proposed legislation will be consistent with the policy objectives of other legislation relevant to the marine environment, including state marine parks legislation and the *Nature Conservation Act 1992* (Qld).

The fishery has been accredited as an approved wildlife trade operation under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth). The management arrangements for commercial fishing must continue to fulfil the fishery sustainability accreditation requirements under this Act. Without accreditation, catch taken in the fishery will no longer be able to be exported and operators who inadvertently kill or injure a protected species will be liable for prosecution.

The proposed changes to the current management regime will address some recommendations associated with this accreditation. Fisheries Queensland will seek re-accreditation once replacement management arrangements are finalised and legislated.

The harvest of grey mackerel, sharks and rays in the fishery is managed jointly by the state and Commonwealth governments through the Queensland Fisheries Joint Authority (QFJA). Fishing licences operating in a fishery over which the QFJA has authority must have an endorsement from the QFJA to take those species. The management framework for these fisheries must continue to allow the functions of the QFJA to be fulfilled.

Consistency with fundamental legislative principles

The proposed regulatory amendments must have sufficient regard to the rights and liberties of individuals and the institution of parliament, and must be consistent with the fundamental legislative principles provided under the *Legislative Standards Act 1992* (Qld).

Additionally, the proposed regulatory amendments must not extinguish native title rights for traditional owners under the provisions of the *Native Title Act 1993* (Cwlth) to take, use or keep fisheries resources in accordance with Aboriginal tradition or under Torres Strait Islander custom.

Background

The Gulf of Carpentaria Inshore Fin Fish Fishery is a multi-species fishery comprising of commercial net and line, recreational, Indigenous and charter fishing sectors. The fishery area consists of all Queensland tidal waters west of longitude 142° 09' E (the northern tip of Cape York).

Species targeted in the fishery include barramundi, king and blue threadfin, shark, mangrove jack, estuary cod and grey mackerel. While other species are taken in the fishery, those referred to above are considered the main species.

An initial review of the fishery was conducted through an issues and options paper released on 23 September 2009. This paper sought input from key fisheries stakeholders and interested members of the public. An analysis of the legislation contained in the Fisheries (Gulf of Carpentaria Inshore Fin Fish) Management Plan 1999 was also undertaken regarding relevance, redundancy, enforceability and appropriateness.

Following the initial review, stakeholders were further consulted on proposals to address the major issues identified. The options set out in this RIS reflect the outcomes of the initial review and subsequent consultation.

The review has shown that continued legislative regulation is necessary to ensure the sustainability of the fishery, and that most of the main features of the legislative framework need to be retained.

This RIS deals with options for addressing the required changes identified during the public consultation phase. The management options proposed include:

- restructuring the net fishery outside 7 nautical miles (includes permits issued by the Queensland Fisheries Joint Authority (QFJA) and operations under the N9 fishery symbol) to improve economic efficiency and reduce complexity in the management framework
- limiting commercial fishing of shark and grey mackerel to ensure sustainable levels of these species
- changing some of the incidental catch limits that apply to the commercial net fishery for shark, grey mackerel, longtail tuna and guitarfish

- amending the size and/or in-possession (bag) limits for barramundi, black jewfish, giant queenfish and golden snapper to ensure sustainability and greater consistency throughout Queensland
- amending the current fish form restrictions that apply to barred javelin fish to address concerns over the illegal take of undersized barred javelin
- amending the timing of the seasonal closure for barramundi in order to simplify it and make it more equitable
- changing the way that some regulated waters are described to provide greater clarity.

There was a range of other issues raised during the consultation phase that are not part of this RIS. A list of these issues is provided in Appendix 2.

Management measures, issues and options

Fishing methods

Commercial net fishing

Fishers operating in the commercial net sector of the fishery are authorised to use set mesh nets. However, the restrictions on allowable net length, drop and mesh size differ between the sectors (see Table 1). See Appendix 1 (Table A1) for more information on the current commercial net fishing authorities.

Table 1: Commercial net fishing authorities in the Gulf of Carpentaria

Authority	Description	Number of authorities	Netting restrictions	
N3 symbol	Set mesh nets in: <ul style="list-style-type: none"> rivers and creeks nearshore waters offshore to 7 nautical miles 	87	Rivers	120 m maximum length 160–245 mm mesh Drop 50 meshes maximum 6 nets maximum Total length 360 m maximum
			Nearshore	600 m maximum length 160–245 mm mesh 6 nets maximum Total length 600 m maximum
			Offshore	600 m maximum length 160–245 mm mesh Drop 50 meshes maximum 1 net only
N9 symbol	Set mesh nets offshore 7–25 nautical miles	5	1200 m maximum length 160–245 mm mesh Drop 85 meshes maximum 1 net only	
QFJA permits	Set mesh net offshore 12–25 nautical miles	1	1200 m maximum length 162.5–245 mm mesh Drop 85 meshes maximum 1 net only	
	Set mesh nets offshore beyond 25 nautical miles	6	5 @ 2500 m maximum length 1 @ 2000 m maximum length 160–165 mm mesh	

One of the major management measures used is to restrict access by limiting the number of symbols that are available for use, as well as restricting the number and types of nets that can be used under each of those symbols.

In the past, commercial net fishers have supported measures to reduce the overall number of inshore netting entitlements, which has seen the number of N3 symbols reduced from 110 in 1997 to the current 87.

Issues

To improve individual profitability and ensure equitable catch sharing within and between sectors, a further reduction in the number of offshore netting entitlements is desirable.

Other issues identified during the consultation to be addressed in this RIS include the need to:

1. transition QFJA developmental net fishing permits to licences
2. simplify the current management framework for the commercial net fishery throughout the Gulf of Carpentaria
3. consolidate the offshore commercial net fishery to reduce overall potential fishing effort
4. review current vessel size restrictions to provide a level of safety for fishers while ensuring fishing effort is constrained within sustainable levels
5. standardise mesh size in offshore set mesh nets at an appropriate level to reduce the potential to target larger sharks and effectively target grey mackerel that are over the minimum legal size
6. reduce the maximum net mesh size to decrease the potential take of larger barramundi.

Proposed management options

To address these issues, it is proposed that:

1. the offshore set net fishery outside of 7 nautical miles be rationalised by:
 - a) creating two new fishery symbols (N7 and N8) to replace the QFJA developmental net fishing permits and the N9 fishery symbol
 - b) reducing the total number of entitlements authorising commercial net fishing activity in the fishery from 12 to 5¹
2. the maximum permissible vessel size in the N7/N8 fishery will be 25 metres

¹ The process for consolidating existing permits and symbols, and the basis upon which new fishery symbols will be issued will be set out in policy. While this process will reduce the total number of authorities, the total number of actual authority holders will remain the same.

3. the maximum permissible vessel sizes in the N3 fishery be increased from 14 metres to 16 metres
4. a requirement for operators in the offshore component of the net fishery to use a standard mesh size of 160-165 mm in order to improve selectivity of grey mackerel and sharks be introduced
5. a requirement for operators in the nearshore component of the N3 fishery to use nets with a mesh size of no more than 215 mm be introduced to limit the potential for targeting large barramundi.

See Appendix 1 (Table A2) for more detail on the proposed options to address these issues.

Other fishing methods

Commercial line fishing in Queensland waters in the Gulf of Carpentaria is limited to holders of L4 fishery symbols and drop line permits issued through the QFJA. A number of changes specifically relating to the commercial line fisheries are proposed. However, these are discussed in the next section, which deals with the proposed arrangements for shark and grey mackerel.

Recreational fishers primarily use line fishing apparatus to catch fin fish species, as well as 7 metre cast nets and 16 metre seine nets to catch baitfish species. Up to 3 fishing lines with a total of 6 hooks or lures may be used at a time. No changes to recreational fishing apparatus are proposed.

Commercial shark and grey mackerel fishery

Shark and grey mackerel are predominantly targeted by commercial net fishers in offshore waters. However, incidental catches are also taken in nearshore waters, rivers and creeks. Additional catches of these species are also taken by commercial line fishers.

Issues

Grey mackerel, sharks and rays are considered susceptible to fishing pressure due to slow growth rates and low levels of recruitment. Therefore, concerns have been expressed about the potential impact on sustainability if harvest levels of these species were to increase above the historical catch. Consequently, ways to keep fishing these species within sustainable levels, including restrictions on the use of offshore netting apparatus, were considered in the initial review.

Section 261 of the Fisheries Regulation 2008 stipulates that fishing licences operating in a fishery over which the QFJA has authority must have an endorsement from the QFJA to take those species. This endorsement has been provided for the N9 fishery through licence condition, and to the net fishery outside 25 nautical miles through the issue of a QFJA developmental fishery permit. The QFJA released a draft policy in 2005, proposing the introduction of a new limited entry fishery for grey mackerel in the N3 fishery based on historical participation in that fishery. It was intended at that time that different shark-in-possession limits would apply to the new fishery than to the general inshore and river mesh net fishery component of the N3 fishery. This proposal was opposed by the commercial industry during initial consultations.

Proposed management options

Because of the lack of industry support, and also because the proposal would not address the potential increased take of shark and grey mackerel in the N9 fishery, alternative options have been developed. It is therefore no longer intended that the 2005 draft limited entry policy will be endorsed by the QFJA. Instead it is proposed that a harvest strategy approach will be adopted for the fishery and that total allowable commercial catch (TACC) levels for shark and grey mackerel would be set.² See Appendix 1 (Table A3) for more information on the options proposed to address concerns over the sustainability of commercial fishing of sharks and grey mackerel.

² Further information on the process used in setting the TACCs in the shark and grey mackerel fisheries can be found in a separate background paper entitled *Process used in setting total allowable commercial catch limits for shark and grey mackerel in the Gulf of Carpentaria*, which is available on the DEEDI website at www.deedi.qld.gov.au

Should the proposal to introduce a TACC for grey mackerel and shark be supported, it is proposed that an in-possession limit of 100 kg of shark fillet will be introduced to apply to all line fishers in the Gulf of Carpentaria at all times. The purpose of this measure is to account for the incidental take of these species by fishers operating under any line fishery authorisation.

The maximum size limit of 1.5 m for line-caught sharks will continue to apply should the proposed in possession limit be adopted.

The fishery's position relative to the TACC limits will be monitored through catch reporting requirements (logbooks). Should the TACC for either shark or grey mackerel be triggered prior to the end of the quota year in the N3/L4 fishery, a prohibition on the use of offshore nets in the N3 fishery will be introduced. Similarly, triggering the N7/N8 TACC for either shark or grey mackerel before the end of the quota year will result in the closure of the fishery to persons operating under these symbols.

See Appendix 1 (Table A3) for more information on the limits that would apply to the commercial line fishing sector should the proposal to introduce TACC limits for shark and grey mackerel be adopted.

Table 2: In-possession limits that apply to both recreational and commercial net and line fishers in the Gulf of Carpentaria (no changes proposed)

Species	In-possession limit
Mangrove jack	5
Sawfish	0
Speartooth shark	0

Table 3: In-possession limits that apply to commercial fishers in the Gulf of Carpentaria

Species	In-possession limit
Albacore, fanfish, longtail tuna, pomfret and skipjack tuna (combined)	10
Bigeye tuna and yellowfin tuna (combined)	2
Billfish	0
Bluefin tuna	0
Guitarfish and shovel-nose ray (combined)	5
Grey reef shark	1
White-tip reef shark	1

Commercial incidental catch limits

Commercial net fishers vary where they fish, the mesh sizes of their nets and the way in which those nets are set in order to target particular fish. While this ability to target fish is often underestimated, it is also impossible to ensure that only target species are taken. Incidental catch limits in the net fishery can be an effective deterrent to the expansion of target fishing for key species that are already considered to be fully exploited. A list of relevant species to which incidental catch limits currently apply is shown in Table 2 and Table 3 below.

Issues

Unrealistic incidental limits can lead to a loss of efficiency and/or unnecessary wastage. The use of incidental catch limits to discourage the deliberate targeting of a species needs to be balanced against the potential for wastage and the inconvenience to the fishing operation if the level is set too low to account for a genuine level of incidental catch. For example, commercial net fishers have raised concerns that incidental catch limits for longtail tuna and guitarfish for the fishery are overly restrictive, given the relative abundance of these species in the Gulf of Carpentaria and the resulting potential for incidental capture.

Proposed management options

To address the concerns expressed by commercial net fishers about current incidental catch limits that apply to guitarfish and longtail tuna, it is proposed that the:

1. commercial net in-possession limit for guitarfish be changed to 10³
2. commercial net in-possession limit for longtail tuna be changed to 500 kg.

The proposal to increase the incidental catch limit for guitarfish in the Gulf of Carpentaria above the limit that applies to other Queensland waters was first raised by commercial fishers. Given the duration of fishing trips undertaken in the Gulf are longer in comparison to those on the east coast, an increased possession limit is justifiable and will not threaten the sustainability of guitarfish. Furthermore, the risks of affecting sustainability are further lowered by the life cycle of guitarfish, which means they are not as vulnerable to fishing pressure as many other species of sharks and rays. It is hoped that the proposed limit will reduce fish wastage and slightly enhance fishers' income.

It should be noted that as the Commonwealth has jurisdiction for the management of tuna and tuna-like species, Fisheries Queensland will need to enter into negotiations with the Commonwealth in order to implement any change to the current incidental catch limit that applies to longtail tuna.

See Appendix 1 (Table A4) for more information on the proposed catch limits for guitarfish and longtail tuna.

Size and in-possession limits

Size limits are an important part of the measures used to ensure the sustainable harvest of a fish species. Generally, minimum legal sizes are based on the average size of a fish when it first reaches sexual maturity. However, this principle is often balanced against a range of other factors, including post-release survival and social considerations. Maximum size limits are also applied to some species to protect larger animals that may contribute disproportionately to reproduction.

3 The shovel nose ray will continue to be subject to an in-possession limit of 5.

In-possession limits (also known as bag limits) refer to the number of fish that each person may take and have in their possession at any one time. They are not a daily limit or a boat limit. In-possession limits can be applied to both recreational and commercial fishers.

Issues

Generally, the size and in-possession limits in the Gulf of Carpentaria are the same as those that apply on the east coast. In the East Coast Inshore Fin Fish Fishery review conducted in 2008, a set of principles were adopted for the determination of size and in-possession limits. The principles are that:

- biological size at maturity is used as the primary basis to set size limits
- limits are as simple as possible
- limits are set to ensure sustainability, particularly where there are stock concerns
- the impact of limits on commercial and recreational fishers is considered
- limits are consistent across jurisdictions where possible.

Table 4 shows the in-possession limits that apply to recreational fishers for fish that are relevant to the review, as well as fish size limits that apply to all participants in the fishery. It highlights current differences in limits applying to these species in the Gulf of Carpentaria and on Queensland's east coast, as this issue was explicitly discussed throughout the initial review. There are a number of other species that are already subject to the same limits in all Queensland waters, and interested persons should consult the Fisheries Regulation 2008.

Proposed management options

To address the issue of inconsistency between those size and in-possession limits that apply in the Gulf of Carpentaria and other Queensland waters, it is proposed that:

- the size limit for barramundi be made consistent with the limit that applies in other Queensland waters (58–120 cm)
- the maximum size limit for black jewfish be removed and the in-possession limit reduced from 5 to 2
- an in-possession limit of 5 be introduced for giant queenfish to reflect the limit that applies in other Queensland waters
- the in-possession limit for golden snapper be reduced from 10 to 5 to reflect the limit that applies in other Queensland waters (the current 35 cm size limit will be maintained).

A decreased minimum size limit for barramundi is not expected to have any impact on sustainability due to the very high growth rate of the species. However, benefits would be gained through ensuring consistency between the arrangements that apply in the Gulf of Carpentaria and the east coast. The proposed arrangements for black jewfish are expected to reduce post-release mortality and provide sustainability benefits through the implementation of a more restrictive in-possession limit. The introduction of an in-possession limit for giant queenfish is expected to provide similar benefits in terms of sustainability.

The reduced in-possession limit for golden snapper has been proposed to provide simplicity and consistency with the east coast. The imposition of a minimum legal size limit based upon size at maturity was considered inappropriate, as this would mean virtually no fish could be taken in the nearshore area of the fishery due to the species moving offshore as they mature. The use of a restricted in-possession limit was considered an appropriate measure to ensure catches of the species are kept within sustainable levels.

No changes to the size and in-possession limits that apply to blue threadfin are proposed in this RIS. See Appendix 2 for more information.

See Appendix 1 (Table A5) for more information on the proposed changes to the current size and in-possession limits.

Fish form restrictions

Restrictions are sometimes placed on the level of processing that can be undertaken for certain species to ensure identification of the species is possible, prevent undesirable practices or ensure that other management measures cannot be circumvented (such as size and in-possession limits).

Table 4: Current size and recreational in-possession limits (shaded cells show differences between Gulf and east coast waters)

Species	East coast		Gulf of Carpentaria	
	Recreational in-possession limits	Size limits	Recreational in-possession limits	Size limits
Barramundi	5	58–120 cm	5	60–120 cm
Barred javelin	10	40 cm	10 (or 20 fillets)	40 cm
Black jewfish	2	75 cm	5 (2 > 100 cm)	60–120 cm
Blue threadfin	10	40 cm	20	40 cm
Giant queenfish	5	50 cm	No limit	50 cm
Golden snapper (fingermark)	5	35 cm	10	35 cm

Issues

Under the current arrangements, it is illegal for recreational fishers in the Gulf of Carpentaria to process (i.e. fillet or behead) a barred javelin fish (grunter) while at sea. The purpose of this prohibition is to help enforce the minimum legal size limit for the species, which was subject to a disproportionate level of non-compliance in some areas. Concerns have been raised regarding the disposal of fish waste and the inconvenience imposed by this prohibition. It has been suggested that the same enforcement outcomes could be achieved by introducing a minimum processed fish size that reflects the overall size of an intact, legal-sized fish.

Proposed management options

To address these concerns, it is proposed that the following suite of measures be introduced to allow limited processing of barred javelin fish at sea:

1. Remove the current prohibition on recreational fishers on a boat having a barred javelin fish that has been filleted or had its head or tail removed.
2. A 40cm minimum size limit will apply to barred javelin fish whether whole or partially processed (i.e. head or tail removed).
3. Barred javelin fish fillets will be required to have skin left on and will be subject to a minimum size limit of 26 cm.

See Appendix 1 (Table A5) for more information on the proposed options relating to the fish form restrictions for barred javelin fish.

Description of regulated waters

In the Gulf of Carpentaria there are a number of specified areas where additional fishing restrictions are in place over and above the general regulations that apply throughout the fishery. These declarations generally prohibit the use of certain apparatus (e.g. commercial fishing nets). The reasons for these restrictions include catch sharing and sustainability, which includes minimising the potential for unintended impacts on species of conservation interest. A list of the regulated waters that currently apply in the Gulf of Carpentaria are provided in Table 5.

Issues

While it is not proposed that any new areas be established, fishers are sometimes required to interpret the boundaries of some regulated waters. In response to this issue, it is proposed that the way these areas are described in legislation be amended in order to provide greater clarity in regards to these arrangements.

Proposed management options

To reduce the potential for confusion and improve the level of clarity of the descriptions of regulated waters, it is proposed that the current descriptions are revised to refer to GPS marks and map references.

See Appendix 1 (Table A6 and Table A7) for more information on the proposed revised description of regulated waters.

Barramundi seasonal closure

Currently there is an annual seasonal closure for barramundi in the Gulf of Carpentaria through a regulated waters declaration. During the closure, Gulf waters are closed to the taking of barramundi by all commercial and recreational fishers. This means the closure also has significant benefits to a range of species not normally targeted as part of the barramundi fishery, including shark and grey mackerel.

The timing of the closure varies from year to year to maximise the coverage of peak barramundi spawning periods (i.e. spring and summer, full and new moon, night-time and high tides). Gulf barramundi usually spawn from 6 pm to 10 pm during new and full moon periods around the high tide. Spawning occurs from around early October to early December in the northern Gulf and from about mid November to late January in the southern Gulf. However, fish begin to aggregate in the lead-up to spawning. This aggregating behaviour, coupled with an increase in feeding activity, makes barramundi more susceptible to capture at this time.⁴

⁴ Further information on the seasonal closure can be found in a separate background paper entitled *Seasonal closure and minimum legal size for barramundi in the Gulf of Carpentaria*, which is available on the DEEDI website at www.deedi.qld.gov.au

Table 5: Regulated waters declarations in the Gulf of Carpentaria (for a full description see Schedule 1 of the Fisheries Regulation 2008)

Regulated waters	Regulated activity
North Cape York	Taking or possessing a black jewfish
Port Musgrave and Wenlock River	Using set mesh nets
Pine River Bay	Possessing or using commercial fishing nets Recreational fin fish fishing
Mission River, Embley River and Hey River; Watson River; Kirke River; Chapman River; Chapman River to Moonkan Creek; Mitchell River; Staaten River; Gilbert River; Bronco's Creek; Norman River (downstream); Norman River (upstream); Bynoe River and Little Bynoe River; Flinders River and Armstrong Creek; Albert River; Nicholson River; Gin Arm Creek; Elizabeth River; Sandalwood Place River	Possessing or using commercial fishing nets
Wellesley Islands Protected Wildlife Area	Possessing or using certain commercial fishing nets
South Mitchell River	Any recreational or commercial fisher taking or possessing any fish

Issues

There have been requests to review the current seasonal closure on the basis that:

- the closure sometimes overlaps the spring school holiday break, thus affecting family-based recreational fishing opportunities
- a variable closure is more confusing than a fixed closure
- enforcement of the prohibition of possession of barramundi requires demonstrating when a fish being held during the closure was caught.

Proposed management options

To address these concerns, it is proposed that the seasonal closure be modified to remove the impact on the school holiday period while still protecting barramundi during spawning periods. The proposed measures are:

1. implementing the closure between 7 October and 1 February each year
2. prohibiting all fishers from possessing barramundi on a boat in the Gulf of Carpentaria between 17 October to 1 February each year.

The proposed prohibition on possessing barramundi on a boat in the fishery will apply between midday 17 October and midday 1 February. This proposal would allow fishers 10 days to return from remote areas with product caught prior to the implementation of the closure. This proposal is seen as a reasonable compromise to aid enforcement without unduly affecting legitimate fishing operations.

See Appendix 1 (Table A6) for more information on the proposed options.

Costs and benefits

An analysis of the options for each of the key issues has been undertaken using input from the consultation process. The objectives and the options to achieve those objectives are detailed in Appendix 1.

The likely costs and benefits of different management strategies for the fishery need to be considered in the context of an increasing demand for access to fisheries resources generally.

Improved access to many parts of the Gulf of Carpentaria, particularly for recreational fishers, is an important cause of fishing pressure. There have also been improvements in available infrastructure to process, store and transport commercial fisheries product. Such changes mean that greater fishing pressure may be applied to Gulf of Carpentaria fish stocks, and it is therefore appropriate to review the management arrangements in order to maintain and improve the legislative framework for the fishery.

The broad alternatives to implementing the proposed new arrangements include having no management interventions at all or maintaining the existing arrangements.

If the existing arrangements in the Management Plan were allowed to expire and were not replaced, then the commercial fisheries in the Gulf of Carpentaria would not be authorised to operate. If the fishery was unmanaged, it could be fished to a point where it would suffer an economic and possibly biological collapse. Either outcome would remove a significant source of economic activity, biodiversity and amenity for Gulf of Carpentaria communities and Queensland in general.

If existing arrangements were to remain unchanged, there is a risk that some species may be overfished. Maintaining some existing arrangements (such as certain recreational size and in-possession limits, and some commercial fishing area boundaries) is likely to lead to inequitable access to fisheries resources between the different fisher groups. This inequity could lead to conflict between fishers, which would result in higher costs of enforcement and would be contrary to an objective of the *Fisheries Act 1994*, which is to promote fair access.

While there would be some benefit in maintaining the existing arrangements (such as relatively minor short-term impacts on recreational fishing and no additional costs to commercial fishers from loss of product or the need to change fishing gear), the long-term costs of overfishing would far outweigh the short-term impacts.

The proposed new arrangements will provide a significant benefit to all fishing sectors and the community generally. This will be achieved by ensuring sustainability of the fisheries resources, fair access and continued high levels of economic activity and recreational fishing satisfaction.

More detail on the anticipated costs, relative benefits and impact on competition of each of the options is provided in Appendix 1.

Appendix 1: Issues and options

Table A1: Commercial net fishing authorities in the Gulf of Carpentaria

Authority	Description	Number	Authority type	Fee
N3 symbol	Set mesh nets in: <ul style="list-style-type: none"> • rivers and creeks • nearshore waters • offshore to 7 nautical miles 	87	Transferable symbol	\$1100 symbol fee
N9 symbol	Set mesh nets offshore 7–25 nautical miles	5	Transferable symbol	\$15 700 symbol fee
QFJA permits	Set mesh net offshore 12–25 nautical miles	1	Non-transferable developmental permit	\$1000 permit fee
	Set mesh nets offshore beyond 25 nautical miles	6	Non-transferable developmental permit	\$1000 permit fee

Netting restrictions		Attendance
Rivers	120 m maximum length 160–245 mm mesh 6 nets maximum Total length 360 m maximum	Maximum distance between nets 5 nautical miles, and fisher must not be more than 5 nautical miles from any net
Nearshore	600 m maximum length 160–245 mm mesh 6 nets maximum Total length 600 m maximum	Maximum distance between nets 6 nautical miles, and fisher must not be more than 6 nautical miles from any net
Offshore	600 m maximum length 160–245 mm mesh 1 net only	The fisher must be within 100 m of the net
	1200 m maximum length 160–245 mm mesh Drop 85 meshes maximum 1 net only	The fisher must be within 100 m of the net
	1200 m maximum length 162.5–245 mm mesh Drop 85 meshes maximum 1 net only	The fisher must be within 100 m of the net
	5 @ 2500 m maximum length 1 @ 2000 m maximum length 160–165 mm mesh	The fisher must be within 100 m of the net

Table A2: Proposals for restructuring the Gulf of Carpentaria net fishery outside 7 nautical miles

Issue	Objective	Options and alternatives (*P* denotes the preferred option/s)
Net fishing in offshore waters more than 7 nautical miles from the territorial sea baseline	Transition QFJA developmental net fishing permits to licences and restructure the N9 fishery to reduce overall potential fishing effort and simplify the current management framework	<p>Restructure the offshore set net fishery outside 7 nautical miles as follows:</p> <ol style="list-style-type: none"> 1. Create two new symbol types (N7 and N8) and remove the N9 symbol from the legislation. 2. Issue four N7 symbols for the use of 1800 m of net in waters from 7 nautical miles to the extent of the Queensland fishing zone, and one N8 symbol for the use of 1800 m of net in waters from 25 nautical miles to the extent of the Queensland fishing zone. This will require setting out in policy the process for consolidating existing permits and symbols as the basis on which the new symbols will be issued. Thus, the two new symbols will replace the N9 fishery symbol and current QFJA developmental net fishing permits. <p>Current Vessel Monitoring System (VMS) and reporting requirements applying to the N9 fishery will continue to apply to net fishing outside 7 nautical miles. (P)</p>
		<p>Annual licensing fees of \$18 000 and \$10 000 will apply to the N7 and N8 symbols respectively. (P)</p>
		<p>Retain current arrangements</p>
Maximum boat size limits	Achieve an appropriate level of safety for fishers while ensuring fishing effort is constrained within sustainable levels	<p>Increase boat size to 16 m in the N3 fishery to be consistent with the boat size in the N4 fishery (P)</p>
		<p>Allow 25 m boats throughout the net fishery outside 7 nautical miles (P)</p>
		<p>Allow 25 m boats throughout the entire net fishery or remove boat size limits</p>
		<p>Keep boat sizes as they are (i.e. 14 m for N3 and 20 m for N7) and introduce a 20 m limit for the N8</p>

Benefit analysis of option	Costs	Impact on competition
<p>There is a need to incorporate the QFJA authorisations into the overall management of the fishery to provide greater certainty for authority holders and other stakeholders.</p> <p>Decreasing the number of N9 boats with an increase in the length of net per boat will improve the economic efficiency of the fishery without any increase in fishing effort.</p> <p>Amalgamating the N9 and QFJA fisheries will reduce the total amount of net that can be used as the net could only be used in one area at one time. Total potential net length will be reduced from 21 700 m to 9000 m.</p>	<p>Annual fishery symbol fees equate to a proposed total fee structure of \$82 000 for 5 boats compared to the current \$85 500 for 12 boats</p>	<p>Competition enhanced—current non-transferable developmental permits are transitioned into tradeable rights in the form of a fishery symbol</p> <p>Competition maintained—5 boats can fish outside 25 nautical miles and 4 of those boats can also fish in to the 7 nautical mile line</p>
<p>Fishing licence fees are related to the relative value and exclusivity of the access right granted. The fee for the N9 symbol from 1 July 2010 will be \$15 700, and the new fees use this fee as a benchmark.</p> <p>N9 (N7) fees increase because the fishery area increases and the number of boats in the fishery decreases. The symbol fee for the N8 is proportionally lower because the fishable area is smaller and there will be 5 boats able to access the area compared to 4 in the N7.</p>		
<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>
<p>The primary intent of the proposal is to address general safety concerns, as well as upcoming requirements for vessels to store all fuel below decks. Net limitations and proposed TACC (if introduced) will effectively cap the potential catch from the offshore component of the fishery and any increase in catch from a slightly larger boat is expected to be marginal.</p> <p>The N7 and N8 boat size limits need to be the same because of the proposed partial amalgamation of the fishery areas.</p>	<p>No cost—individual business choice whether or not to increase boat sizes</p>	<p>Competition improved—reducing some current constraints on industry</p>
<p>Greater increases, or the removal of all boat size limits in the net fishery, are not supported outside an overall review that considers the impact on other fisheries and in particular the boat size limits that apply in other net fisheries.</p>	<p>No cost—individual business choice whether or not to increase boat sizes</p>	<p>Competition improved—reducing some current constraints on industry</p>
<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>

Table A2 (cont.): Proposals for restructuring the Gulf of Carpentaria net fishery outside 7 nautical miles

Issue	Objective	Options and alternatives (*P* denotes the preferred option/s)	
Offshore set net mesh sizes	Standardise mesh size in offshore set mesh nets at an appropriate level to reduce the potential to target larger sharks and effectively target grey mackerel that are over the minimum legal size	Requires a mesh size of 160–165 mm in all offshore set mesh nets (P)	
		Retain existing range of mesh sizes	
Nearshore and river set mesh net sizes	Reduce the maximum net mesh size to decrease the potential to take larger barramundi	Introduce 215 mm maximum net mesh size (P)	
		Retain existing maximum mesh size of 245 mm	

Benefit analysis of option	Costs	Impact on competition
<p>The introduction of what is essentially a single mesh size will provide greater selectivity for appropriate sized fish of the principal target species. It would make it impractical to target breeding individuals of the larger shark species in the net fishery. Such species are at greatest potential risk should fishing pressure on them increase. This mesh size is also selective for grey mackerel greater than the minimum legal size of 60 cm.</p> <p>The small range in mesh size allows for a degree of variation between and within net batches and aids enforcement.</p> <p>Offshore set net mesh sizes would be made consistent with the east coast fishery.</p>	<p>Nets will be required to meet stated specifications and this could potentially impact upon some commercial fishers. In order to minimise the financial impact upon commercial fishers, the introduction of this measure could be timed to coincide with the commencement of a new season when nets are replaced as matter of routine.</p> <p>The cost of new nets is estimated at between \$2800 and \$9000.</p>	<p>No impact—all commercial fishers will be subject to the same restrictions</p>
<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>
<p>This will restrict the capacity to target larger barramundi. While there has been some interest in reducing the maximum legal size to 100 cm, a small number of fish over this size would always be taken in commercial fishing nets and would have to be discarded if the size was reduced. It is more practical to amend the mesh size so that there is a tendency to take fish smaller than the current maximum size; however, occasional larger fish that are taken do not have to be wasted. East coast commercial fishers are already subject to a maximum mesh size of 215 mm in the barramundi fishery. The benefit is better resource protection and product uniformity and retention.</p>	<p>Nets will be required to meet stated specifications and this could potentially impact upon some commercial fishers. Indications are that few fishers, if any, use greater than 215 mm mesh sizes at the present time. The cost of new nets is estimated at between \$2800 and \$9000.</p>	<p>No impact—all Queensland commercial fishers will be subject to the same restrictions</p>
<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>

Table A3: Proposals for commercial fishing targeting shark and grey mackerel in the Gulf of Carpentaria Inshore Fin Fish Fishery

Issue	Objective	Options and alternatives (*P* denotes the preferred option/s)																			
Commercial fishing for shark and grey mackerel	Ensure catches of sharks and grey mackerel remain sustainable by: <ol style="list-style-type: none"> 1. implementing an adaptive management framework that caps catches 2. undertaking ongoing review of effort and catch levels in the fishery 	Targeted shark fishing allowed for commercial net fishers only (P) (The implementation of an incidental limit for line fishers is further discussed in Table A4)																			
		A separate competitive quota or TACC for Gulf of Carpentaria shark and grey mackerel based on the total catch and the trend in standardised catch rates over the period 2000 to 2008—the quota year would commence on 1 July of each year (P)																			
		Share each TACC between two components, being the N3/L4 combined and the N7/N8 combined on the basis of historical catch proportions as follows:																			
		<table border="1"> <thead> <tr> <th rowspan="2">Species</th> <th rowspan="2">Average catch</th> <th rowspan="2">Catch per unit effort slope</th> <th colspan="3">TACC</th> </tr> <tr> <th>Total</th> <th>N3/L4</th> <th>N7/N8</th> </tr> </thead> <tbody> <tr> <td>Mackerel</td> <td>470 t</td> <td>+0.5%</td> <td>470 t</td> <td>141 t</td> <td>329 t</td> </tr> <tr> <td>Shark</td> <td>445 t</td> <td>-3.6%</td> <td>413 t</td> <td>165 t</td> <td>248 t</td> </tr> </tbody> </table>	Species	Average catch	Catch per unit effort slope	TACC			Total	N3/L4	N7/N8	Mackerel	470 t	+0.5%	470 t	141 t	329 t	Shark	445 t	-3.6%	413 t
Species	Average catch	Catch per unit effort slope				TACC															
			Total	N3/L4	N7/N8																
Mackerel	470 t	+0.5%	470 t	141 t	329 t																
Shark	445 t	-3.6%	413 t	165 t	248 t																
<p>(P)</p> The following interventions to apply if a TACC is triggered before the end of the quota year : <ol style="list-style-type: none"> 1. Triggering the N3/L4 TACC for either shark or grey mackerel would trigger a prohibition on the use of offshore nets within the N3 fishery. 2. Triggering the N7/N8 TACC for either shark or grey mackerel would close those fisheries. (P) 																					

Benefit analysis of option	Costs	Impact on competition
<p>Removing the capacity to target shark by line reduces the potential for effort to expand and for the TACC to be triggered. Triggering the TACC would have a greater impact on the offshore net fishery than the line fishery because the offshore net fishery would be closed.</p>	<p>If catch is not constrained, shark and grey mackerel stocks may be at risk with a significant impact on those fishers who are dependent on them.</p> <p>The main cost of the proposal would be a reduction in income for fishers whose catch would be reduced by the proposed limits.</p> <p>This cost would be greatest if the TACC is triggered and the offshore component of the fishery is consequentially closed for the duration of the quota year. Such cost could also include fishers being unable to take the uncaught proportion of the other TACC that had not yet been triggered.</p> <p>In that regard, grey mackerel and shark are worth approx. \$5.50/kg and \$4.50/kg respectively to commercial fishers.</p>	<p>There are benefits to competition through maintaining shark and grey mackerel stocks and catch rates at sustainable levels.</p> <p>The proposal maintains a greater degree of access to the fishery and flexibility than the alternative of a limited entry fishery.</p> <p>The proposal maintains current catch sharing arrangements.</p>
<p>The TACCs will cap the potential fishing impacts on shark and grey mackerel resources. The use of output controls rather than further restricting access maintains future flexibility for industry.</p>		
<p>These levels represent the recent historical catch shares and are adjusted to account for the trend in standardised catch rates. Thus, the proposal does not represent a shift in recent catch sharing arrangements. Around 70% of the catch of grey mackerel has been taken in the offshore set net fishery outside the 7 nautical mile line since 2000. For shark this was about 60%.</p>		
<p>The proposed closure of the offshore net fishery is necessary to restrict impacts on shark and grey mackerel once either TACC is triggered. Offshore nets set to take any species would continue to take sharks and grey mackerel, which would not be able to be retained if the TACC has been reached. This would lead to unrecorded mortality of these species. This is not only wasteful, but would also undermine the integrity of the catch and effort data that will be used to assess the performance of the fishery.</p>		

Table A3 (cont.): Proposals for commercial fishing targeting shark and grey mackerel in the Gulf of Carpentaria Inshore Fin Fish Fishery

Issue	Objective	Options and alternatives (‘P’ denotes the preferred option/s)
Commercial fishing for shark and grey mackerel (cont.)	Ensure catches of sharks and grey mackerel remain sustainable by: 1. implementing an adaptive management framework that caps catches 2. undertaking ongoing review of effort and catch levels in the fishery	In the future, the TACCs would be adjusted every four years under a harvest strategy. The magnitude and direction of such change would be determined on the basis of decision rules that examine the trend in standardised catch rates over the preceding four years. (P)
	(cont.)	The harvest strategy would include a review point that is triggered if a TACC within the N3/L4 fishery is reached in any two consecutive years. The trigger would lead to a review of whether this is due to excess effort in the offshore component of the N3 fishery or an increase in effort in the L4 fishery, and if so how this might be addressed. (P)
		Introduce an effort control mechanism to constrain catches within sustainable limits by restricting access to grey mackerel and/or shark to only those N3 fishers with an historical financial reliance on taking these fish
		Introduce an effort control mechanism to constrain catches within sustainable limits by restricting access to the offshore N3 fishery to fishers holding two N3 symbols.
	Retain status quo with no limits on shark and/or grey mackerel catches in any component of the fishery	

Process for setting TACCs in the shark and grey mackerel fisheries

As described previously, the Gulf of Carpentaria shark and grey mackerel TACCs are proposed to be set at the average of the total annual historical catch adjusted on the basis of the trend in standardised catch per unit effort in the net fishery. Further information on the process used in setting the TACCs in the shark and grey mackerel fisheries can be found in a separate background paper entitled *Process used for determining total allowable commercial catch limits for shark and grey mackerel in the Gulf of Carpentaria*, which can be made available upon request.

	Benefit analysis of option	Costs	Impact on competition
	<p>The ongoing review of the TACCs in light of the trend in standardised catch rate represents a precautionary and adaptive management approach.</p> <p>Reviewing the arrangements if the fishery is closed provides an opportunity to consider whether further constraints on effort would benefit the fishery. If the TACC is not triggered, or is rarely reached, then effort levels are appropriate and no further changes to access would be warranted.</p>		
	<p>The implementation of a limited entry fishery in the N3 to reduce effort is opposed by the commercial fishing industry on the basis that it reduces flexibility and imposes differential access rights. It also would fail to address the impact of the set net fishery outside the 7 nautical mile line.</p>	<p>Loss of access to shark and grey mackerel resources to fishers who do not meet history criteria (the value of these species to such fishers is referred to above)</p>	
	<p>The implementation of a limited entry fishery in the N3 to reduce effort is opposed by the commercial fishing industry on the basis that it reduces flexibility and imposes differential access rights. It also would fail to address the impact of the set net fishery outside the 7 nautical mile line.</p>	<p>Cost would be in purchase of an additional N3 fishery symbol, estimated at between \$50 000 and \$70 000</p>	<p>Decreases flexibility and reduces access</p>
	<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>

Table A4: Proposals for incidental catches in the Gulf of Carpentaria commercial net fishery

Issue	Objective	Options and alternatives ('P' denotes the preferred option/s)	
Incidental catch limits for commercially taken sharks and grey mackerel	Support the proposed introduction of TACCs for shark and grey mackerel by accounting for genuine incidental catches while preventing continued target fishing	An in-possession limit of 100 kg of shark fillet to apply to all line fishers in the Gulf of Carpentaria at all times (it should be noted that a maximum size limit of 1.5 m for line-caught sharks already applies and will be retained) (P)	
		<p>The following interventions to apply if a TACC is triggered before the end of the quota year:</p> <ol style="list-style-type: none"> 1. Triggering the N₃/L₄ TACC for shark would introduce an in-possession limit of 250 kg for shark in the N₃ (noting that triggering the TACC closes the offshore net fishery (see Table A3). 2. Triggering the N₃/L₄ TACC for grey mackerel would trigger a 100 kg in-possession limit for grey mackerel in both the N₃ and the L₄. (P) 	
		Retain status quo with no limits on shark and/or grey mackerel catches in any component of the fishery	
Longtail tuna commercial net in-possession limits	Reduce wastage without encouraging target fishing	Change commercial net in-possession limit for longtail tuna to 500 kg (P)	
		Maintain current in-possession limit of 10 for longtail tuna (combined limit with albacore, fanfish, pomfret and skipjack tuna)	
Guitarfish commercial in-possession limits	Reduce wastage without encouraging target fishing	Change commercial net in-possession limit for guitarfish to 10 (P)	
		Remove the limit and allow unrestricted catches	
		Maintain current in-possession limit of 5	

Benefit analysis of option	Costs	Impact on competition
<p>Removing the capacity to target shark by line reduces the potential for effort to expand and for the TACC to be triggered. Triggering the TACC would have a greater impact on the offshore net fishery than the line fishery.</p>	<p>The main cost of the proposal would be a reduction in income for fishers whose catch would be reduced by the proposed limits.</p>	<p>There are benefits to competition through maintaining shark and grey mackerel stocks and catch rates at sustainable levels.</p>
<p>The proposed implementation of incidental catch limits will allow the fishery for inshore species to continue once the TACC is triggered. Not allowing for incidental catches would lead to unrecorded mortality of these species. This is not only wasteful, but would also undermine the integrity of the catch and effort data that will be used to assess the performance of the fishery.</p>	<p>The estimated value of shark and grey mackerel to commercial fishers is referred to previously in Table A3.</p>	
<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>
<p>The current limit is regarded by commercial fishers as inappropriate due to occasional larger catches and associated mortality, which results in wastage from discarding dead fish. There is no indication that there are any concerns over longtail tuna stocks—the species is not the target of any commercial fishery in the Gulf of Carpentaria, nor is it taken in significant numbers by recreational fishers. The benefit is avoidance of fish wastage; however, there is a secondary benefit of a slightly enhanced income for fishers.</p> <p>Note: In order to implement this proposal, Fisheries Queensland will need to negotiate a change to the current arrangements with the Commonwealth.</p>	<p>No cost—proposal is a reduction of current restrictions</p>	<p>Competition enhanced—reduced constraints on fishing</p>
<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>
<p>The current limit is regarded by commercial fishers as too low given the duration of Gulf fishing trips. It should also be noted that maintaining the current finning prohibition will make retaining guitarfish less attractive. The benefit is avoidance of fish wastage; however, there is a secondary benefit of a slightly enhanced income for fishers.</p>	<p>No cost—proposal is a reduction of current restrictions</p>	<p>Small impact if commercial line fishers continue to be restricted to 5</p>
<p>Does not achieve objective as may encourage target fishing for a species that is worth taking for the value of its fins alone</p>	<p>No cost—proposal is a reduction of current restrictions</p>	<p>Greater impact if commercial line fishers continue to be restricted to 5</p>
<p>Does not reduce wastage if more than 5 guitarfish are taken and killed</p>	<p>A small cost through potential loss of saleable product</p>	<p>No impact</p>

Table A5: Proposals for size, recreational in-possession limits and recreational form restrictions

Issue	Objective	Options and alternatives (*P' denotes the preferred option/s)
Barramundi minimum legal size	Achieve consistency in size limit throughout Queensland	Change minimum size limit to 58 cm (P)
		Change east coast limit to 60 cm
		Retain minimum size limit of 60 cm
Black jewfish maximum size	Simplify the current maximum size limits and reduce potential post-release mortality	Remove maximum size limit (P)
		Retain current sizes (120 cm maximum size limit overall, with no more than two fish over 100 cm)
Black jewfish in-possession limit	Offset removal of maximum size limit and address concerns over potential for localised depletion	Reduce in-possession limit to 2 (P)
		Retain current in-possession limit of 5
Giant queenfish in-possession limit	Achieve consistency of in-possession limit throughout Queensland	Introduce in-possession limit of 5 (P)
		Continue with no in-possession limit
Golden snapper in-possession limit	Achieve consistency of in-possession limit throughout Queensland	Reduce in-possession limit to 5 (P)
		Retain current in-possession limit of 10
Recreational barred javelin fish form restrictions	Reduce impacts of compliance with management measures to address concerns over the illegal take of undersize barred javelin fish	<p>Remove current prohibition on a recreational fisher on a boat having a barred javelin fish that has been filleted or had its head or tail removed</p> <p>Introduce a 26 cm size limit for fillets, with a requirement to leave the skin on</p> <p>Make the 40 cm minimum size limit apply regardless of any other form that the fish is in (i.e. the fish must still measure at least 40 cm after the head or tail is removed) (P)</p>

Benefit analysis of option	Costs	Impact on competition
<p>This provides greater simplicity and consistency with the east coast. It is not expected to have any biological or economic significance because:</p> <ul style="list-style-type: none"> • barramundi has a very high growth rate, particularly during the four-month seasonal closure • commercial fishing nets generally select fish over 60 cm • recreational fishers tend to target fish over 60 cm. 	<p>No cost—proposal is a small relaxation of current restrictions, which will have no functional significance</p>	<p>Competition enhanced—the same limit applies to all Queensland fishers</p>
<p>While this alternative proposal achieves the objective, it was considered during the East Coast Inshore Fin Fish Fishery review and was not supported at that time. Given this clear outcome, it is not considered appropriate to make such a change as part of the current review.</p>	<p>Limited cost—east coast fishers no longer able to retain fish between 58 cm and 60 cm</p>	<p>Competition enhanced—the same limit applies to all Queensland fishers</p>
<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>
<p>This reduces potential for post-release mortality of larger fish and, in combination with a more restrictive in-possession limit, improves sustainability.</p>	<p>No cost—proposal is a small relaxation of current restrictions</p>	<p>No impact—all fishers subject to the same restrictions</p>
<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>
<p>This provides greater simplicity and consistency with the east coast. A reduced limit addresses potential localised depletion issues and offsets the proposed removal of the maximum legal size.</p>	<p>No cost is anticipated—unlikely that recreational fishing effort significantly affected</p>	<p>No impact—all recreational fishers subject to the same restrictions</p>
<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>
<p>This provides simplicity and consistency with the east coast and also benefits sustainability of the species.</p>	<p>No cost is anticipated—unlikely that recreational fishing effort significantly affected</p>	<p>No impact—all recreational fishers subject to the same restrictions</p>
<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>
<p>This provides simplicity and consistency with the east coast. It is also a sustainability measure given the minimum legal size is below size at sexual maturity. Imposing a legal size at maturity would mean virtually no fish could be taken in the nearshore area because they move offshore as they grow. The use of a restricted in-possession limit is an appropriate offset for retaining the current size limit.</p>	<p>No cost is anticipated—unlikely that recreational fishing effort affected</p>	<p>No impact—all recreational fishers subject to the same restrictions</p>
<p>Does not achieve objective</p>	<p>No cost</p>	<p>No impact</p>
<p>This addresses concerns about recreational fishers not being able to process the fish while they are on a boat and keeps enforcement benefits. The 26 cm fillet size limit represents the size of a fillet that can be taken from a javelin fish that is over 40 cm total length. This will allow a boat-based recreational fisher to process their fish as long as the remaining portion of the fish is at least 40 cm long.</p>	<p>No cost—proposal is a relaxation of current restrictions</p>	<p>No impact—all recreational fishers subject to the same restrictions</p>

Table A5 (cont.): Proposals for size, recreational in-possession limits and recreational form restrictions

Issue	Objective	Options and alternatives (*P* denotes the preferred option/s)	
Recreational barred javelin fish form restrictions (cont.)	Reduce impacts of compliance with management measures to address concerns over the illegal take of undersize barred javelin fish (cont.)	Introduce a trunked fish size, provided an appropriate conversion can be established	
		Remove all restrictions on barred javelin form for recreational fishers	
		Maintain current prohibitions	

	Benefit analysis of option	Costs	Impact on competition
	There is no reliable conversion factor for a fish with its head or tail removed.	No cost—proposal is a relaxation of current restrictions	No impact—all recreational fishers subject to the same restrictions
	Does not address concerns over the enforcement of the minimum legal size for a heavily targeted species	No cost—proposal is a relaxation of current restrictions	No impact—all recreational fishers subject to the same restrictions
	Does not achieve objective	No cost	No impact

Table A6: Proposals for Gulf of Carpentaria regulated waters

Issue	Objective	Options and alternatives (*P* denotes the preferred option/s)	
Description of regulated waters	Use GPS marks or map references to define all regulated waters in the Gulf of Carpentaria	Adopt revised descriptions (see Table A7 for list of current regulated waters and proposed descriptions) (P)	
		Retain current descriptions	
Timing of the seasonal barramundi closure	Simplify the arrangement, remove impact on school holidays and maintain benefits for the sustainability of fish	Change to a fixed closure (from 7 October to 1 February) (P)	
		Retain current variable closure based on moon phases	
Possessing fish after the start of the seasonal closure	Simplify enforcement of the prohibition on taking barramundi	Prohibit possession of barramundi on a boat in the Gulf of Carpentaria from 17 October to 1 February (P)	
		Retain current regulations	

Benefit analysis of option	Costs	Impact on competition
Clarification of boundaries will improve certainty for fishers and aid compliance. These are existing regulated waters—no proposed new regulated waters are listed.	No cost—benefit is better ability to identify and comply with boundaries	No impact—all fishers will be subject to the same restrictions
Does not achieve objective	No cost	No impact
<p>Most Gulf barramundi don't spawn until November, thus making the starting date a little later in some years will not affect the great majority of spawning fish. Any impacts would be marginal and restricted to north-west Cape strain barramundi north of Weipa. This area is subject to a much lower level of fishing impact—there is very little commercial barramundi fishing effort.</p> <p>Closing on 7 October and reopening on 1 February would only make the closure two days shorter than the current closure and would have no functional significance for barramundi sustainability.</p>	No cost—benefits are better fishing opportunities in school holidays and spawning fish are still adequately protected	Minor enhancement of competition—reduced constraints on fishing and tourism
<p>Does not achieve objective</p> <p>The current regime impacts on fishing opportunities because the school holidays are variable and sometimes overlap the closure.</p>	No cost	No impact
<p>The current prohibition relates to taking barramundi during the closure and to the possession of barramundi that were taken during the closure. Enforcing this provision requires proving when the barramundi was taken.</p> <p>The proposal allows fishers 10 days to return from the fishing grounds, and is therefore a reasonable compromise to aid enforcement without unduly affecting legitimate fishing operations.</p>	No cost—benefit is ease of enforcement, which may marginally reduce overall management costs for the fishery	No impact—all Gulf barramundi fishers will be subject to the same restrictions
Does not achieve objective	No cost	No impact

Table A7: Proposed descriptions of Gulf of Carpentaria regulated waters to be included in Schedule 1 of the Fisheries Regulation 2008

Regulated waters	Regulated activity	Description
North Cape York	Taking or possessing a black jewfish	Change description to a map reference
Port Musgrave and Wenlock River	Using set mesh nets	Waters of Port Musgrave south of latitude 11°57.3' S Waterways that join those waters
Pine River Bay and Pine River	Possessing or using commercial fishing nets Some recreational fishing	Waters of Pine River Bay west of longitude 141°41.7' E Waterways that join those waters
Mission River, Embley River and Hey River	Possessing or using commercial fishing nets	Waters of Albatross Bay east of longitude 141°48.4' E Waterways that join those waters
Watson River	Possessing or using commercial fishing nets	Waters of Watson River upstream of the following lines— <ul style="list-style-type: none"> • a line of longitude 141°42' E between the river's southern bank to the southern shore of Long Island • a line of longitude 141°43.1' E from the river's northern bank to the northern shore of Long Island Waterways that join those waters
Kirke River	Possessing or using commercial fishing nets	Waters of Kirke River, east of longitude 141°32' E Waterways that join those waters
Chapman River to Moonkan Creek	Possessing or using commercial fishing nets	Waters of the Gulf of Carpentaria that are— <ul style="list-style-type: none"> • south of latitude 14°50.3' S • north of latitude 14°55.7' S • east of longitude 141°35' E Waterways that join those waters
Mitchell River	Possessing or using commercial fishing nets	Mitchell River and waterways joining it, upstream of a line between F↑B signs on opposite sides of the river near the banks of West Mottle Creek
South Mitchell River	Taking any fish	South Mitchell River (141°33' E, 15°21' S) and waterways joining it, other than Surprise Creek, between F↑B signs near the river's banks and F↑B signs near its junction with Surprise Creek (141°42' E, 15°16' S)
Staaten River	Possessing or using commercial fishing nets	Staaten River and waterways joining it, upstream of longitude 141°34' E
Gilbert River	Possessing or using commercial fishing nets	Gilbert River and waterways joining it, upstream of the road crossing near Goose Lagoon and Mosquito Waterhole

Regulated waters	Regulated activity	Description
Bronco's Creek to Bynoe River and the Norman River	Possessing or using commercial fishing nets	Waters of the Gulf of Carpentaria that are south of latitude 17°22.5' S and east of longitude 14°43' E Waterways that join those waters other than the Norman River between where the Normanton to Karumba water pipeline crosses the river and the bridge across the river on the Normanton to Karumba Road
Bynoe River and Little Bynoe River	Possessing or using commercial fishing nets	Bynoe River and waters around the river mouth that are south of latitude 17°30.32' S and east of longitude 140°42.64' E Waterways that join the waters mentioned in 1
Flinders River and Armstrong Creek	Possessing or using commercial fishing nets	Flinders River and waters around the river mouth that are south of latitude 17°34.9' S and between longitude 140° 35.8' E and longitude 140°34.6' E Waterways that join those waters
Albert River and Saltwater Arm	Possessing or using commercial fishing nets	Albert River and waters around the river mouth that are south of latitude 17°33.5' S and between longitude 139°45.3' E and longitude 139°45.8' E Waterways that join those waters
Nicholson River and Gaynor Creek	Possessing or using commercial fishing nets	Nicholson River and waters around the river mouth that are south of latitude 17°29.8' S and between longitude 139°36.15' E and longitude 139°36.5' E Waterways that join those waters
Gin Arm Creek and Wild Horse Creek	Possessing or using commercial fishing nets	Gin Arm Creek and waters around the creek mouth that are south of latitude 17°27.7' S and west of longitude 139°34.1' E Waterways that join those waters
Wellesley Islands Protected Wildlife Area	Possessing or using certain set mesh nets	Waters within the following boundary— <ul style="list-style-type: none"> • from the intersection of longitude 139° E with the mainland shore to latitude 16°15' S, longitude 139° E • to latitude 16°15' S, longitude 140° E • to the intersection of longitude 140° E with the mainland shore • along the shore to longitude 139° E
Elizabeth River (Mornington Island)	Possessing or using commercial fishing nets	Elizabeth River upstream of latitude 16°15' S Waterways that join those waters
Sandalwood Place River (Mornington Island)	Possessing or using commercial fishing nets	Waters of the Gulf of Carpentaria that are— <ul style="list-style-type: none"> • south of latitude 16°27' S • east of longitude 139°21.4' E • west of longitude 139°22' E Waterways that join those waters

Appendix 2: Issues for which no changes are proposed

Issue	What was considered/requested	Rationale for no amendment being proposed
Barramundi maximum legal size	A reduced maximum legal size was requested by a number of fishers; however, divergent views were expressed.	The working group ⁵ advised no change for simplicity and consistency with the east coast. There is no indication that the current size is inappropriate. Reducing the catch of larger female fish is best addressed by reducing net sizes. Reducing fish maximum legal size is likely to cause wastage of net-caught fish.
Javelin fish minimum legal size	An increased minimum legal size was requested by a number of fishers; however, divergent views were expressed.	The working group advised no change for simplicity and consistency with the east coast. There is no indication of stock concerns that would be addressed by change. Variable recreational catches appear to be associated with variable availability in nearshore areas and are not likely to be related to fishing pressure.
Blue threadfin in-possession limit	A decreased in-possession limit was considered in order to be consistent with east coast. This was not widely supported by fishers.	The working group advised no change, as lowering the in-possession limit may put more pressure on other species and there is no indication of any problems with stocks.
Other fish size and in-possession limits	There were a small number of other species for which changes to size and/or in-possession limits were requested.	Proposals were not supported because there was no compelling reason to introduce any limits that would be different to those that apply on the east coast. Proposals relating to species not dealt with as part of the Gulf of Carpentaria Inshore Fin Fish Fishery should be considered holistically in any appropriate fishery review (e.g. when the Coral Reef Fin Fish Fishery is reviewed).
Guitarfish fish form (fins attached)	The removal of the requirement to land guitarfish with fins attached was requested by a number of fishers because the Gulf commercial net fishery is based on long trips and freezer operations.	This proposal was supported by the working group; however, this advice was not supported by Fisheries Queensland. The proposal would not address conservation concerns that guitarfish are targeted for their valuable fins alone. Nets are not selective for the species and post-release mortality is lower than some other species, so fishers may be able to release them alive rather than being disadvantaged by keeping them with fins intact. The proposal to allow up to 10 fish in possession with fins attached is considered adequate to cater for the operation of the Gulf fishery without encouraging targeting the fish for its fins.
Narrow sawfish in-possession limit	An increase in narrow sawfish in-possession limit from zero was requested by some fishers as this species is relatively abundant in Gulf waters; however, divergent views were expressed.	This was not supported by the majority of industry or the working group. The conservation sector is strongly opposed to any change from the current no-take status. Despite their belief that there is no risk for the sustainability of the species, the commercial sector overall is not seeking to increase the limit in recognition of these concerns.

⁵ The Technical Working Group, which consisted of representatives from the Queensland Fisheries Joint Authority, the commercial fishing industry (including representatives from the Queensland Seafood Industry Association and the Gulf Fishermans Association), the recreational fishing sector (Sunfish), and conservation (World Wildlife Fund and Australian Marine Conservation Society) and Indigenous (Carpentaria Land Council Aboriginal Corporation) stakeholder groups.

Issue	What was considered/requested	Rationale for no amendment being proposed
N3 access to shark and grey mackerel	There was consideration given to restricting access to the species under the QFJA 2005 draft policy.	This was not supported by the majority of industry or the working group on the basis that it would reduce flexibility and impose differential access rights to different operators. It also would fail to address the impact of the set net fishery outside the 7 nautical mile line. See Table 6 for alternative proposals.
Shark finning provisions	The introduction of a requirement to keep fins attached in some components of the fishery was considered.	This was not supported by industry or the working group because current finning requirements are regarded as appropriate for the fishery. The majority of Gulf commercial fishing operations are based on freezing fillet. Imposing a requirement to keep sharks as barrels with fins attached would reduce the value of the meat product and cause an unnecessary and significant loss in income. The proposal could encourage discarding of the whole animal and increase fishing pressure on other species, which would also continue to have an unrecorded impact on sharks. A recent successful prosecution for infringing the shark finning legislation shows that the regulations can be and are being enforced.
Extent and timing of spawning closure	The removal of the prohibition to use offshore set nets during the seasonal closure was considered.	This proposal was only supported by a small number of N3 fishers, and no other industry participants. It was not supported by the working group, particularly in light of other proposals to restrict offshore set netting and the take of the principal target species shark and grey mackerel. This proposal would greatly increase the likelihood that any TACC applied to these species would be triggered. The closure also provides protection for spawning mackerel, pupping sharks and other species in critical phases of their reproductive cycles.
	Implementation of additional spawning closures (e.g. for javelin fish) was considered.	There is little information on which to set any other closures; however, this issue should be reviewed if information becomes available that a specific closure would have a clear benefit to spawning stocks of any particular species. With regard to javelin fish, the species is a serial spawner and there are no clear spawning areas or times to protect.
Commercial netting impacts on the Spanish mackerel line fishery	Commercial line fishers requested restrictions on commercial net fishing in offshore waters off Albatross Bay, Duyfken Point, Port Musgrave and Mornington Island to reduce the potential for unintended impacts on Spanish mackerel line fishing areas.	It was noted that the identified areas are within or adjacent to areas for further investigation identified through the Commonwealth Government's bioregional planning process for the Gulf of Carpentaria. It is possible that this process may result in areas where netting and/or other fishing is restricted. It was decided that this issue should be reviewed following the finalisation of that planning process.

Issue	What was considered/requested	Rationale for no amendment being proposed
Commercial net fishing in Albatross Bay	Recreational and charter fishers and some other stakeholders have requested that the bay be closed to commercial net fishing.	Issues raised relating to reduced recreational fishing opportunities are unlikely to be related to commercial net fishing, which is at a very low level. The issue should be addressed more broadly through the regional management process being established and trialled within the east coast fishery. Any regional management proposal should address the potential for relocating fishing effort.
Elements of the Management Plan pertaining to operations in commercial net fisheries	Arrangements pertaining to drop, mesh size, length and marking requirements for commercial nets; spatial and temporal netting closures; and requirements relating to vessel monitoring systems for Ng licences contained in the Management Plan were considered in the overall review of management arrangements.	Certain elements of the Management Plan were considered appropriate for the ongoing management of the fishery and will consequently be maintained.

ENDNOTES

- 1 Laid before the Legislative Assembly on . . .
- 2 The administering agency is the Department of Employment, Economic Development and Innovation.

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