

Green paper on fisheries management reform in Queensland

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From the Minister

Queensland has the great fortune of being home to some of the world's most unique and diverse aquatic ecosystems.

Fishing has always been important to our way of life. It was first practised here by the Aboriginal and Torres Strait Island peoples of Queensland and coastal Indigenous groups in particular have strong cultural links to the sea and marine animals both as a source of sustenance and for their spiritual significance. Today, commercial fishers operate regional businesses along our coast that provide fresh local seafood to the community, and recreational and charter fishing in marine and fresh waters are treasured pastimes for many Queenslanders.

Our fish resources are also major tourism attractions and an important part of why people visit the Great Barrier Reef. With so much at stake, it is vital that we carefully manage these resources to ensure that they can provide future generations with the benefits we enjoy today.

In recent decades, pressure on our fisheries resources has escalated. We are now facing potential over-exploitation of these resources by all sectors, and this is causing increasing conflict and competition between users of the resources and concern in the wider community.

This, in combination with a growing population, coastal development and climate change, has brought challenges that our current fisheries management framework is ill equipped to deal with.

Managing our fisheries for the future will require change. We cannot continue to exploit our fisheries resources as we have been, or hope to ensure their long-term sustainability using the management tools of the past. Our limited fisheries resources should be shared and allocated in a way that provides the greatest economic value, while ensuring ongoing sustainability and greater resilience.

The Government's Sustainable Fishing election commitments clearly recognise the need for fisheries management reform. This green paper has been developed to start a discussion with Queenslanders on how to best manage access to, and use of, Queensland's fisheries resources into the future. The green paper outlines ten key areas that need reform to bring Queensland's fisheries management system into line with current best practice.

I believe the reform process offers tremendous opportunities for all. It will lead to greater resilience for Queensland's fish stocks and will make ours some of the world's best managed fisheries. Future generations will judge the success of the reforms by being able to enjoy the ongoing benefits of these resources. By maintaining fish stocks at higher levels, Queensland's marine ecosystems, including those in the World Heritage listed Great Barrier Reef, will also be healthier and more resilient, they will be more attractive to tourists visiting from interstate and overseas while also allowing indigenous, recreational and commercial fishers to enjoy better fishing experiences and, for commercial enterprises, more profitable businesses.

I encourage all Queenslanders to take advantage of this opportunity to have their say on the future management of Queensland's fisheries resources.

The Honourable
Leanne Donaldson MP

Minister for Agriculture
and Fisheries

Overview

Queensland's fisheries resources are highly valued across the community for their economic, social, traditional and cultural contributions to the state.

The common property and open access nature of fisheries resources means government has a responsibility to ensure they are protected from over-exploitation so they can be enjoyed in perpetuity and sustain viable industries in the long term. The aim is to not only conserve them but to balance their use to ensure fair and managed access.

Queensland's current fisheries management arrangements are based on approaches developed in the late 1970s. They are cumbersome, costly to administer, inflexible and increasingly less effective in ensuring the sustainability of the resources and the economic viability of the existing industry sectors.

Queensland needs an accountable, responsive, dynamic and transparent system of fisheries management to sustain and share our fisheries resources into the future and protect the broader marine environment. Ensuring that Queensland's fisheries resources are managed in an environmentally and socially responsible manner into the future will require change.

The purpose of this green paper is to outline the Government's vision for the management of wild harvest

fisheries, where we want to be and the proposed reforms that are required. Five goals and ten areas for reform have been identified. The Government acknowledges that specific fisheries management reform is required now and proposes that reforms are guided by the broader direction outlined in the green paper.

The green paper is a major step in developing a strategic policy to guide the management of Queensland's fisheries resources into the future. Feedback received in response to this green paper will be used by the Government to determine which initiatives are supported by the public.

The green paper delivers on the Government's election commitment to review the fisheries regulatory framework. The green paper also represents the Government's response to the independent review of fisheries management in Queensland conducted by MRAG Asia Pacific (the MRAG review).

Providing feedback on this green paper will not be the community's only opportunity to comment on how Queensland's fisheries resources are managed. Each reform proposal outlined will be developed further

through open and transparent stakeholder engagement and public consultation.

To have a say on the future of fisheries management in Queensland, visit www.daf.qld.gov.au.



What is a green paper?

A green paper is a document prepared on a specific policy area for discussion and comment from interested parties. Green papers do not commit the government or minister to the views expressed in the document or to a particular direction or course of action. They are designed to put forward concepts and options and to seek broad views on these proposals. The objective of the green paper is to arrive at a general consensus before developing future policy initiatives and changing legislation.

Fishing in Queensland

– setting the scene

Our fisheries are diverse and extend over 7000 kilometres of coastline, half of which is adjacent to the unique and remarkable Great Barrier Reef World Heritage Area. The Government is responsible for managing these resources on behalf of all Queenslanders. Figure 1 provides a snapshot of Queensland's fisheries.

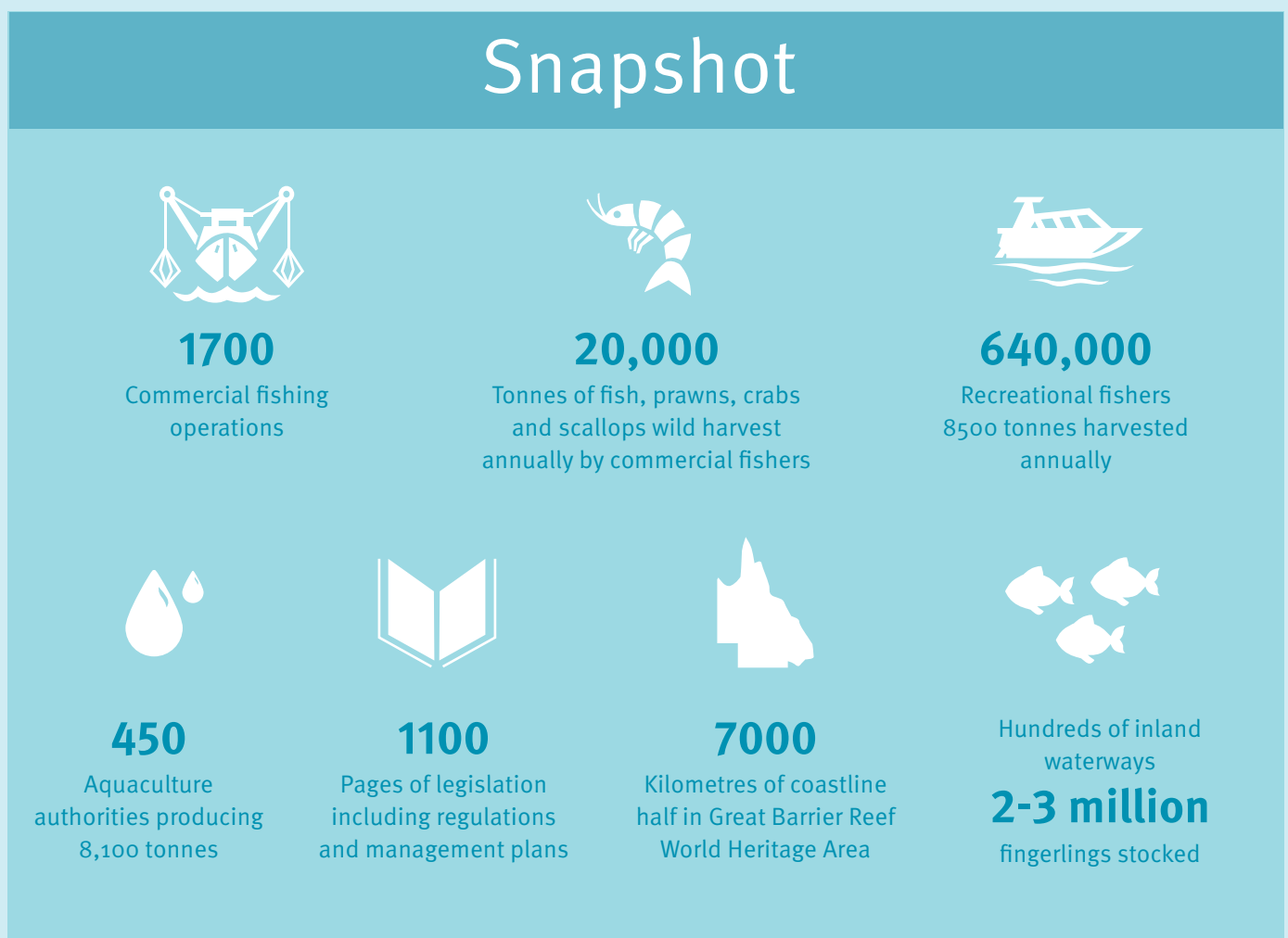


Figure 1 A snapshot of Queensland's fisheries

Indigenous fishing

Fishing is a significant traditional and cultural activity for many Aboriginal and Torres Strait Islander people living in Queensland. Customary fishing rights are recognised under the *Native Title Act 1993* (Cwlth). The strong connection between Aboriginal and Torres Strait Islander people and fishing relates to nutrition, cultural connection to country and waters, ceremonial and social events, exchange, trade and barter, and passing knowledge of cultural and traditional fishing to successive generations. Catches of fish are often shared among the family, extended family and others not able to fish for themselves (such as the elderly). Indigenous fishing can also cross into the commercial and recreational sector, including aquaculture and tourism, but these activities are managed under Queensland legislation such as the *Fisheries Act 1994*, and not the Native Title Act.

Recreational fishing

Queenslanders are keen recreational anglers. Each year, more than 640,000 people fish for recreation, with anglers taking home around 8500 tonnes of fish, crabs and prawns. Recreational fishing continues to be a very popular outdoor activity. Queenslanders have a wide number of recreational fishing options ranging from freshwater fishing on stocked impoundments to offshore game fishing. Recreational and charter fishing are also important for tourism, attracting anglers from around Australia and the world. Recreational fishers make a substantial contribution to regional economies from products and services such as bait and tackle, accommodation and food. It is estimated that recreational fishing is worth around \$400 million dollars each year to the Queensland economy.

Commercial fishing

Commercial fishing in its various forms is one of the state's oldest and most regionally diverse primary industries. Queensland's commercial wild harvest fisheries generate around \$190 million in seafood production each year (beach price/at the wharf), which is around 10% of Australia's total seafood production. There are around 1700 licensed commercial fishing operations and 2300 licensed commercial fishers taking around 20,000 tonnes of fish, prawns, crabs and scallops annually. The prawn sector is the largest by volume and value (at around \$85 million), followed by reef fish and crabs.

Aquaculture

More than 450 aquaculture authorities produce 8100 tonnes of prawns, oysters and fish annually. In 2014–15, this generated in excess of \$120 million, bringing the total value of seafood production for Queensland to about \$311 million. The Queensland Competition Authority recently reviewed this sector and made a number of recommendations. To view the full report visit www.qca.org.au. The Government's response to the report recommendations is available at www.daf.qld.gov.au.

National and international context

While Australian fisheries are largely considered well managed in the global context, the international significance of the Great Barrier Reef means that we have a responsibility to meet higher standards of management. The cumulative impacts of coastal development, climate change, land-based run-off, fishing and tourism are significant and ongoing. The Great Barrier Reef Marine Park Authority's Outlook Report 2014 considered certain fishing activities as 'high to very high risk' to parts of the marine park's ecosystems if not managed to mitigate that risk.

In 2015 the Queensland and Australian governments released the *Reef 2050 long-term sustainability plan* to address the risks facing the Reef and to ensure its long-term conservation and ecological resilience. Reviewing the regulatory structure of fishing with a view to making changes that will demonstrate and ensure sustainability of Queensland's fisheries is an action in this plan.

Commercial fisheries also require accreditation from the Australian Government under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to legally interact with species of conservation interest in Commonwealth areas, and to

export fish to overseas markets. The environmental performance of each fishery is assessed against sustainability guidelines to ensure direct and indirect impacts of the fishery on target species and the broader environment are being managed appropriately. Conditions and recommendations are applied to approvals to address outstanding issues and these need to be met for accreditation to be maintained. Recent accreditations have highlighted the need for reforms to mitigate the risks of fishing to target species and the broader ecosystem. In addition, they have shown the need to demonstrate that management arrangements are effective and being complied with.





Where we want to be

—a vision for Queensland’s wild harvest fisheries

The Government is seeking to redefine the strategic direction for how wild harvest fisheries will be managed into the future. Our vision for Queensland’s wild harvest fisheries is:

Fishing is a low risk to Queensland’s aquatic resources and these are shared to optimise benefits to the community.

All fishers, as well as non-fishers and the Government, have roles and responsibilities in achieving this vision. A key part of achieving this vision will be an understanding in the fishing community that entitlement to access fisheries resources is a privilege. It is coupled with the responsibility to use the resources sustainably and efficiently, protecting the aquatic environment and taking only their share.

The community needs to have confidence that the vision is being achieved. For that to happen, all

participants must step up and be accountable for improved outcomes, including maintaining social acceptability.

This vision for wild harvest fisheries management sets where we want to be. The proposed reforms required to get there will necessarily mean change. Figure 2 shows the current status of the key parts of the fisheries and what they are expected to look like during and after the reform process.

Once this reform process has been completed and the vision starts being achieved Queensland will

have some of world’s best managed fisheries resources. Our stocks will increase in size, providing greater resilience into the future but also supporting and providing better experiences for all fishers.

The reforms will address community concerns about the health of our fisheries, the impact of fishing on the environment and improve our reputation as a marine tourism and recreational fishing destination, while underpinning a profitable commercial fishing sector capable of supplying high quality seafood to the market.

Figure 2 What will the reform change?



Why reform fisheries?

The current management systems are not sufficient to achieve the vision for Queensland's fisheries.

There are a number of challenges with the current management system which need to be addressed in order to meet the vision:

- ▶ **Gaps in data and information** needed to support decision-making and equitable resource sharing arrangements.
- ▶ **No formal and transparent process** to identify or manage: fish stocks, resource allocation between sectors, issues and risks.
- ▶ **Inflexible management systems** that are unable to be adjusted as required to manage fishing, and an unclear decision-making process.
- ▶ **No structured engagement** between stakeholders and decision-makers.
- ▶ **A focus on preventing overfishing** as opposed to maximising benefits for both the community and the ecosystem.

Why is change needed now?

Without broad reforms it will be increasingly difficult for government to ensure and demonstrate sustainability. The profitability and social acceptability of fishing will continue to decline and competition for shared resources between sectors will increase with no clear process to resolve issues.

As well as the need for a modernised and responsive management system to effectively manage fisheries resources into the future, there are a number of specific drivers of change.

- ▶ The Government's Sustainable Fishing election commitments included a review of the regulatory structure of commercial fishing to ensure the sustainability of Queensland's fisheries, improved consultative arrangements with all stakeholders and adopting a fisheries resource allocation policy based on maximising the economic value Queenslanders receive from sustainable use of their fisheries resources.

- ▶ These commitments are also actions within the *Reef 2050 long-term sustainability plan*, which reflects the Queensland and Australian governments international commitment to UNESCO to manage and improve World Heritage values in the Great Barrier Reef.
- ▶ Fishery accreditations under the EPBC Act are at risk of being revoked if the commercial industry and the Government are unable to adequately address concerns about some of the undesirable impacts from commercial fishing activities, such as interactions with species protected under the EPBC Act. Without accreditation, fisheries will be unable to export product, could be illegally interacting with protected species and would be unlikely to continue to operate in the Great Barrier Reef area.

The Government has developed this green paper based on these commitments and consideration of the recommendations of the MRAG review and the community feedback to that review.

How we will get there

The Government is seeking to engage the community and industry to introduce practical and cost-effective reform of fisheries management in Queensland. The goals of fisheries management reform – “what we are seeking to achieve” are set out in Figure 3. Ten areas for reform have been identified to deliver across the five goals.

Figure 3 The 10 areas and 5 goals of fisheries management reform.

Vision						
Fishing is a low risk to Queensland’ aquatic resources and these are shared to optimise benefits to the community						
Reform Goals <i>What we are seeking to achieve</i>	Long-term sustainability and resilient stocks	Economic returns to the community and access for all users	Clear and unambiguous regulatory framework	Enhance systems to support fisheries management	Investment in fisheries management	
10 areas for reform <i>How we will get there</i>	1. Managing target stocks to maximise overall benefits to the community, optimise catch rates, and secure community support for fishing					
	2. Managing impacts on ecosystem and non-target species, to maximise benefits to the community					
	3. Clarify resource-sharing arrangements between sectors, to provide certainty about resource use					
	4. Review authorities for access to the resources, to ensure equity and value for current and future generations.					
	5. Optimise decision-making framework, to ensure responsive, fit-for-purpose management arrangements					
	6. Adopt harvest strategies that have the flexibility to maximise benefits, for both the community and the ecosystem					
	7. Improved data and information to underpin best-practice management arrangements.					
	8. Improved consultation and engagement, to include stakeholders in the development and implementation of management arrangements.					
	9. Fisheries compliance upgrades to underpin all management objectives.					
	10. As the fisheries reform program develops, consideration will be given to how the costs of improved management will be met.					

Question: Do you support the vision, goals and areas of reform proposed? If no, what is your proposed vision for the reform of Queensland’s fisheries? What are the challenges in achieving this vision?

The process for reform

This green paper is a major step in developing a strategic policy that will guide the management of the state’s fisheries resources towards achieving the vision and the reform goals. It seeks to promote discussion with industry and the community about the proposed reforms.

The Government is proposing a staged approach to introducing reforms (Figure 4). This will allow the Government to manage risks and expenses over time and ensure greater stakeholder participation as reforms are developed and implemented.

Reform is a long-term process and change will be difficult for some. However, continuing with the current management arrangements is not a viable option for something as important as our wild harvest fisheries.

Figure 4 The timeline for reform

Step 1—now	Step 2—2017	Step 3—2018	Step 4—2020
<ul style="list-style-type: none"> ▶ Release the green paper proposing strategic direction and approach to management. ▶ Consult with stakeholders on the proposed reforms. ▶ Improve data collection and verification, education and compliance. 	<ul style="list-style-type: none"> ▶ Determine final strategic direction and approaches to management. ▶ Commence consultation required to amend or create new legislation and regulations. ▶ Implement reform programs for specific fisheries. ▶ Develop, rollout and invest in enhanced programs related to data, education and compliance. ▶ Establish consultation mechanisms with stakeholders. 	<ul style="list-style-type: none"> ▶ Complete consultation required to amend or create new legislation and regulations. ▶ Continue to implement reform programs for specific fisheries. ▶ Continue development, rollout and investment in enhanced programs related to data, education and compliance. 	<ul style="list-style-type: none"> ▶ New management framework in place with clear direction, and decision-making processes. ▶ Day-to-day fisheries management undertaken by the management agency based on the Government’s strategic direction. ▶ Ongoing review and refinement of management arrangements based on data and pre-agreed decision rules.

Major areas for reform



The following sections outline for each reform area:

- ▶ the nature of the issue
- ▶ the proposed reforms
- ▶ the questions we are seeking feedback on.

The proposed reforms are not in order of importance or action; they are interconnected and together create the full suite of reforms required to effectively manage our fisheries in the future.

Why 60%?

A review of scientific literature and discussions with scientists and fishery managers suggests managing stocks to achieve a 60% unfished population size is most likely to optimise benefits to the community. Rather than use targets such as greater than maximum sustainable yield or equivalent to maximum economic yield, the Government has proposed consultation on a specific target of 60% of the unfished population size for key fishery species. The intention is to be clear about the ideal size of fish stocks, as this will guide how these fish stocks are managed.

1. Managing target stocks

Ensuring that fisheries resources remain sustainable is the fundamental objective of Queensland's fisheries management system. In general, a stock is classified as 'sustainable' when 30–40% of the unfished population remains. Under this criterion, the vast majority of Queensland's fish stocks are considered to be sustainably fished.

However, maintaining a stock at 30–40% of the unfished population may not allow the greatest possible benefits to the community to be realised. For example, fish stocks at levels greater than that required to simply ensure sustainability would yield higher recreational catch rates, improve profitability in the commercial sector and provide greater resilience to adverse environmental conditions such as the effects of climate change.

The Government is proposing that targets for Queensland's fisheries resources move towards a higher

benchmark, a level equivalent to 60% of the unfished population for shared stocks or maximum economic yield for predominately commercial stocks. Stock-specific targets will be set in harvest strategies (see reform area 6—Harvest strategies). For some stocks it may not be feasible to set a stock target at this level in the first instance. Such cases will require management action that allows the stock to rebuild over time while still balancing social and economic objectives.

The scale of management will be set at the biological stock level where appropriate. The level of management activity that would apply to each fish stock will be based on risk and level of economic and social importance. This approach would mean greater controls and resourcing will be directed to iconic or important commercial and recreational species and to stocks that are considered to be at risk. Other stocks will continue to be managed in a precautionary manner.



Reform proposals:

- ▶ Set targets for key fish stocks in harvest strategies which move towards a level equivalent to 60% of the unfished population for shared stocks, or maximum economic yield for predominately commercial stocks, unless otherwise required to best meet objectives.
- ▶ Ensure the management that is applied to a particular stock is proportional to the level of risk to the stock, or the social and/or economic importance of the stock.

Questions:

- ▶ Do you agree that there is a need to rebuild fish stocks to higher levels?
- ▶ If yes, do you agree that 60% of the unfished population is a suitable target?
- ▶ If no, do you think current stock levels are suitable, or do you have an alternative proposal?



2. Managing impacts on the ecosystem, including non-target species

Managing the impacts of fishing activities on the marine ecosystem is a critical part of sustainable fisheries management and is necessary to maintain the social acceptance of fishing practices. Fisheries management agencies use ecological risk assessments (ERAs) to identify the broader ecosystem impacts of fishing activities. An ERA is an analysis of the best available information of fishery impacts on target and non-target species (e.g. dugong, turtles, dolphins and protected fish) and the broader ecosystem to determine the level of risk posed by the fishery. Species considered to be at 'high risk' will be prioritised for management action.

The Government has undertaken ERAs in several fisheries in recent years. However, ERAs are currently undertaken on an ad hoc basis, largely driven by a condition of a fishery accreditation under the EPBC Act. To ensure that the broader ecosystem impacts of fishing activities in Queensland are given adequate consideration and, where appropriate, remedial action is taken, the Government proposes that an ecological risk assessment policy be developed. This policy when implemented would aim to identify and minimise risks to the broader ecosystem from fishing. ERAs would be conducted for each fishery with those considered to be a high risk fishery undertaken first.



Reform proposals:

- ▶ Develop an ecological risk assessment policy outlining how the broader ecosystem impacts of fishing will be identified and managed.
- ▶ Ecological risk assessments will be prioritised according to those fisheries that are considered to present the highest risk to target and non-target species.

Question:

- ▶ Do you agree that a structured risk based approach should be used to guide management of the broader ecosystem impacts of fishing?
- ▶ If no, do you have an alternative suggestion for the management of the broader ecosystem impacts of fishing?

3. Resource sharing arrangements between sectors

The Government is committed to maximising the economic and social value that Queenslanders receive from the sustainable use of their fisheries resources. However, there is currently no clear process for considering allocation of access to fisheries resources between sectors. This has led to conflict between resource users with no obvious means for resolution. There is little doubt that commercial fishers want greater certainty to plan their operations and long-term investments. Likewise, recreational and charter fishers want greater recognition for the value angling brings to regional communities. Also, traditional fishers have little engagement in the current management system.

Allocation of an explicit access share to each sector within a fishery would provide clarity to resource users; however, there are challenges to this approach. They include how to set the allocation, what form it should take (e.g. a tonnage or proportion of a total allowable catch) and the data and information requirements necessary to appropriately set and manage to the shares (e.g. setting a total allowable catch and ensuring each sector only catches to their allocated share). Therefore, the Government needs to carefully consider if and when explicit allocation is appropriate and have the ability to better quantify the community benefits through alternative access-sharing arrangements.

It is proposed a fisheries resource-sharing policy be developed in consultation with stakeholders to provide clarity about how resources are accessed and shared between the different users. The decision-making

process must be fair, transparent and subject to clear rules and procedures. Sectoral allocation would ultimately be a decision of the Minister in order to reflect community interests in the use of resources for commercial and recreational purposes.

While it would be unreasonable to expect to eliminate all conflicts over the distribution of fisheries resources, adopting a stable and predictable access and allocation approach will help reduce the frequency of conflicts and provide guidance to help resolve them.



Reform proposals:

- ▶ Work with stakeholders to develop a fisheries resource-sharing policy based on maximising the economic and social value that Queenslanders receive from the sustainable use of their fisheries resources. It will consider as a minimum:
 - a transparent and repeatable process where reasons for decisions are clear
 - opportunities for stakeholder input
 - guidance on when and how to explicitly allocate fisheries resource access shares to sectors (recreational, commercial, Indigenous and non-extractive users)
 - the cost of the process takes into account the value (economic or social) of the fishery or resource
 - provision of a method to adequately quantify the benefits to the community of alternative resource-sharing arrangements
 - regional considerations will be taken into account but solutions must be cost-effective and capable of being implemented.

Questions:

- ▶ Do you support where appropriate the allocation of a specific share of the available annual catch to the major catching sectors (Indigenous, recreational and commercial)?
- ▶ If yes, do you agree that the allocation of such shares should be guided by the considerations outlined in this green paper?
- ▶ If no, what are some alternative options the Government should consider to address competition between sectors for the available annual catch?

4. Access to the resources

The Government does not manage fisheries resources directly, but controls access to the resources. Access is currently managed by a range of input controls (managing effort through gear restrictions and area and seasonal closures) and output controls (managing catch through catch quotas and bag limits). There is a widely held view that the number of commercial fishing authorities that provide access to some of Queensland's commercial fisheries is excessive, given the available resources. Similarly, the recreational bag limits that apply to some species are considered to be greater than what is reasonably required. Excess participation can cause low profitability in many fisheries, lead to conflict between resource users, result in pressure to compromise over conservation objectives and lead to recurring demands for increased access at the expense of other resource users.

The Government is committed to ensuring that the level of commercial and recreational fishing pressure directed at Queensland's fisheries resources is set at a level that meets agreed targets, is socially acceptable and is capable of supporting a profitable industry. For some fisheries this will require total fishing effort and/or participation to be reduced.

Across all sectors, future access arrangements will need to:

- ▶ adequately constrain catch to meet biological targets

- ▶ be appropriate for the species life history
- ▶ align with the biological, environmental, social and economic goals and objectives for the fishery
- ▶ be cost effective
- ▶ operate in a way that minimises the need for government intervention (e.g. by programs such as licence buybacks)
- ▶ determine that the duration of the access entitlement (e.g. fixed-term or permanent entitlements) meets changing community expectations and environmental goals
- ▶ provide incentives for investment, stewardship and innovation
- ▶ provide sufficient certainty for industry to make long-term investment decisions.

Indigenous fishing

Indigenous fishing rights are recognised under the *Native Title Act 1993* (Cwlth), and the *Fisheries Act 1994* contains some restrictions on the use of commercial fishing apparatus for customary fishing. Currently there is limited engagement between fisheries management and Indigenous communities due to a lack of engagement mechanisms and resourcing. It is proposed that a Queensland Indigenous Fishing Strategy be developed in consultation with key Indigenous groups. The purpose of the strategy

will be to explicitly recognise that Aboriginal and Torres Strait Islander communities have distinct and unique fisheries interests, to improve options and opportunities for the involvement of Indigenous people in fisheries management and to enhance the participation of Indigenous people in commercial fishing enterprises under the *Fisheries Act 1994*.

Recreational fishing

While an increasing number of recreational fishers practice catch and release, recreational fishing activity can still affect the health of fish stocks, particularly for popular recreational species. Currently recreational fishing in Queensland is managed through a system of size and bag limits; however, over time this system has become increasingly complex with different size and bag limits applying to hundreds of species. The sheer number of species involved has made the current system confusing for recreational fishers.

The Government is committed to working with stakeholders to develop a simpler system of size and bag limits. This system will need to ensure that the level of recreational fishing pressure in Queensland is sustainable and allow recreational fishers to retain an appropriate number of fish. It must not facilitate the black-marketing of recreationally caught fish.

Commercial fishing

The Queensland Government is committed to maintaining a commercial fishing industry that is sustainable, socially responsible and profitable. Commercial access is currently permitted by an ‘authority’ under the *Fisheries Act 1994*. Individual Transferable Quota (ITQ) give fishers secure access entitlements that reduce the race to fish and provide incentives to promote more sustainable practices. Under this system a total allowable catch (or effort) is allocated to fishers and trading of ITQ entitlements can occur. While a quota system is the Government’s preferred management tool for high value species, it is not suitable for all fisheries or species, given the associated costs and complexity of quota management. The Government is therefore proposing a measured approach that assesses the best management model for each fishery, with a clear preference where feasible to use quota to constrain catch and improve economic viability.



Reform proposals:

- ▶ On a fishery-by-fishery basis, review and, if required, put measures in place to reduce total fishing catch and/or effort to meet agreed targets. For example, to move towards a target of 60% unfished population.
- ▶ Develop a Queensland Indigenous Fishing Strategy in consultation with key Indigenous groups.
- ▶ Work with stakeholders to develop a simpler and more responsible system of size and bag limits for recreational fishers.
- ▶ Develop a policy to guide any future allocation of commercial fishing access entitlements which considers all allocation options, including types of controls (e.g. quotas), the duration of the entitlement, as well as the use of market-based mechanisms in addition to catch and effort data.

Questions:

- ▶ Do you agree that fisheries management should be reviewed on a fishery-by-fishery basis to determine what management arrangements are required for each fishery?
- ▶ If yes, do you agree that a policy is required to ensure consistency in the management arrangements that are developed for each fishery, including the future allocation of commercial fishing access entitlements? If no, what alternative strategies do you propose to manage future access to Queensland’s fisheries resources?

5. Decision-making framework

Queensland's fisheries resources are currently managed in accordance with the provisions of the *Fisheries Act 1994*. Under this Act, the majority of both strategic and technical decisions are made under subordinate legislation that is issued by the Governor-in-Council. Changing legislation is a necessarily complex process and consequently, amendments are not always achieved promptly in response to emerging issues. Also, there is no clear process providing for when and how fisheries management arrangements are reviewed.

To address this it is proposed to separate strategic from technical decision-making. Parliament and Government of the day (the Minister and Cabinet) should set the strategic direction for fisheries management on behalf of the community while the management agency should make the day to day decisions required to achieve the strategic direction (see Figure 5).

Figure 5 The proposed decision-making framework



To achieve this, the existing suite of legislation and regulation needs to be changed. Once implemented this would allow decision-making that responds in a timely way to relevant information, ensure decisions are taken at the appropriate levels and facilitate involvement from those who the decisions will affect. For example under the proposed model,

the Minister could decide sectoral catch-sharing allocations and approve harvest strategies while the management agency would make the technical decisions for the fishery (e.g. make decisions to increase or decrease total catch in line with the approved harvest strategy).



Reform proposals:

- ▶ Clarify the roles of the Parliament, the Government and the management agency in respect to decision-making.
- ▶ Provide capacity to respond to emerging fisheries issues in a timely manner.

Questions:

Do you agree that management arrangements for fisheries should be responsive to changing conditions (environment and fish populations) but within defined strategic parameters?

- ▶ If yes, do you agree with the proposal set out in the green paper?
- ▶ If no, do you have an alternative proposal?

6. Harvest strategies

A harvest strategy is a fisheries management tool used to integrate the biological, ecological, social and economic dimensions of fisheries management into a single framework. Harvest strategies will form a key element of Queensland's overall approach to promote the ecologically sustainable development of its fisheries resources. Some fish stocks (e.g. spanner crabs and coral trout) are already managed under a form of harvest strategy and have decision rules used to help set commercial quotas which are declared as required by the management agency.

It is proposed a harvest strategy policy be developed for Queensland fisheries. A harvest strategy would generally apply at a fishery level and have the following components:

- ▶ *operational management objectives*—the outcome being sought (e.g. maintain fish stock X at 60% unfished population, maintain high catch rates for fish stock X to maximise profitability)
- ▶ *performance indicators*—what will be measured and tracked over time (e.g. stock size estimates from the stock assessment)
- ▶ *target and limit reference points*—the desired and minimum acceptable level of a performance indicator
- ▶ *decision rules*—the agreed management responses when a target or limit reference point is reached.

The aim is for all fishers to understand the conditions that will initiate a review or change the management arrangements in a fishery. The process needs to be as 'automatic' as possible both in terms of certainty for fishery participants and any administrative and legislative processes needed to implement the change. The policy would also provide guidance on the range of management tools that could be used to constrain catch to the desired level.

Many stakeholders have expressed their desire for a regional approach to managing fisheries resources. Attempts at regional management to date have been ad hoc and not very successful, as stakeholders have remained polarised. The need for regional management and its role in meeting management objectives could be considered in the development of a fishery harvest strategy.



Reform proposals:

- ▶ Develop and implement a harvest strategy policy that would include:
 - the required components of a harvest strategy such as operational objectives, performance indicators, target and limit reference points and decision rules
 - the process by which a harvest strategy will be created, including how stakeholders will be engaged
 - a monitoring strategy to collect relevant data to assess the fishery
 - the process for assessing fishery performance against objectives.

Questions:

- ▶ Do you support the proposal to manage Queensland's fisheries resources in accordance with harvest strategies which will provide biological, social, cultural and economic targets for each of Queensland's fisheries?
- ▶ Are there any key issues the Government would need to consider in the development of a harvest strategy that have not been outlined in the green paper?

7. Data and information

Accurate and timely information is the foundation of sustainable fisheries management. The Department of Agriculture and Fisheries collects a range of information from various sources including commercial fishing logbooks, quota reporting, recreational surveys and biological monitoring of priority species. Data collection is costly and the Government must ensure that any future programs are cost effective, practical and clearly linked to management needs such as informing a harvest strategy or understanding the risk posed by a fishing activity. While it is vital to have the right information, it is also essential for the public to have confidence in this information and trust that fisheries resources are being managed sustainably and in a way that is socially acceptable. The proposed reforms reflect a program of ongoing improvement. It is proposed to have a particular focus to improve catch and effort data collection from recreational and commercial fishers and collect economic information about both these sectors. A data collection strategy for Indigenous fishing will also need to be developed as part of the proposed Indigenous Fishing Strategy.

Recreational fishing

Programs for the collection of recreational fishing data currently include periodic statewide surveys and boat ramp surveys for regional catch and effort data. Reliable information on recreational catch and effort is needed for resource-sharing processes. It is also needed for input into stock assessments for recreationally important species to support harvest strategies and to understand the value of recreational fishing to the community. Future recreational data-collection programs will need to be designed to support these management needs.

Commercial fishing

Compulsory commercial catch and effort reporting has been in place since 1988. This logbook program has evolved over time to address fishery-specific requirements. It remains central to how fisheries are managed and is used in stock assessments. However, there are currently limited mechanisms available to validate commercial catch and effort reporting. Fishers are also required to record interactions with species of conservation interest, but there is no way to independently validate this data. Consequently, there is distrust in the accuracy of some commercial data.

To address these issues, the Government will work with industry to implement ways to improve the accuracy and timeliness of catch reporting, including programs to independently validate catch and effort data and records of interactions with species of conservation interest. The application of electronic monitoring technologies to perform these functions will be explored.

Economic data

Economic information has become increasingly important in fisheries management. It will be needed if Queensland's commercial fisheries are to be managed with a view to improving the economics of the industry. It is also needed to develop an understanding of the economic contribution of recreational fisheries.



Reform proposals:

- ▶ Progressively improve the accuracy and timeliness of catch reporting, including introducing programs to independently validate commercial catch and effort information and interactions with species of conservation interest.
- ▶ Introduce a robust and comprehensive system for checking, analysing and controlling the quality of incoming data.
- ▶ Future recreational data collection programs are designed to meet management needs.
- ▶ Develop a practical and cost-effective program to address gaps in economic data to better assess the impacts of management decisions.
- ▶ Develop a data collection strategy for Indigenous fishing as part of the proposed Indigenous Fishing Strategy.

Questions:

- ▶ Do you agree with the need for enhanced data collection and independent validation programs to improve the basis for fisheries management decisions in Queensland?
- ▶ Can you suggest some low cost mechanisms for enhancing data availability and collection, from recreational fishers, commercial fishers and for regional fisheries as a whole?



8. Consultation and engagement

The Government is committed to engaging with Queenslanders on issues relevant to the management of the community's fisheries resources by reinstating formal consultative arrangements with all stakeholders. Without a formal avenue to have a say in the future of their fisheries, stakeholders feel disconnected from the management system. Often there is no clear understanding of how new regulations have come to be or what they are trying to achieve and so there is little 'ownership' from stakeholders over management arrangements and therefore less incentive to comply with them. Equally, without a system for direct, formal communication with fishers, the fisheries management agency has no regular, structured process to canvass stakeholder views on priorities for management, monitoring, research and compliance. Strengthening the involvement of key stakeholders and the wider community must be a central element of the Government's approach to fisheries reform.

Careful consideration needs to be given to implementing a consultation and engagement model that will work for Queensland. With regards to co-management there also needs to be clarity around how stakeholders can participate in future decision-making processes, such as discussions on sectoral resource allocations and the development of harvest strategies. Stakeholder participation will need to be built into the relevant policies.

Before a decision is made for the long-term formal consultation framework (in terms of committees and membership), the government will undertake an interim consultation program to re-engage with stakeholders. This first step will be critical to the development of the fisheries reform program and to the rebuilding of relationships with and trust of stakeholders. This program will help determine the content of the more permanent consultation framework (expected in 2–3 years). In the interim, representative working groups and/or advisory committees will be established as required to provide advice to the management agency and the Government during the reform process.

Important elements in setting up such groups will be transparency in appointments and the use of independent experts where appropriate.

A more participatory model of fisheries management will require a comprehensive and dedicated effort by all involved. Greater industry and sectoral leadership in the recreational, commercial and Indigenous sectors will be necessary for improved participation, representation and accountability. The management agency will also need to provide greater guidance, clearer direction and better information, based on the proposed reforms, to support the adopted model.



Reform proposals:

- ▶ Design and establish a formal ongoing fisheries stakeholder engagement and consultation process.

Questions:

- ▶ Do you think it is important to establish an ongoing stakeholder engagement process to provide advice to Government and/or the management agency?
- ▶ If yes, what are the most important elements of such a stakeholder engagement process?
- ▶ If no, what is your alternative for the Government and/or the management agency to obtain advice from stakeholders?

9. Fisheries compliance

An effective compliance regime is essential in maintaining the integrity of the fisheries management system. While control and enforcement is critical to responsible fisheries management, good compliance is typically a balance between encouraging voluntary compliance and appropriate deterrence. This requires clear and simple rules, strong powers, effective sanctions and adequate compliance tools and resources.

Queensland's fisheries compliance program is undertaken by the Queensland Boating and Fisheries Patrol (QBFP), an organisational unit within the Department of Agriculture and Fisheries. There are significant challenges in relation to the scale of QBFP activities—7000 kilometres of coastline, hundreds of inland fishing areas, 250,000 recreational vessels, 640,000 recreational fishers and more than 1700 commercial fishing operations.

Government agencies are continually seeking ways to deliver services with increased efficiency and effectiveness. In future years it is proposed that Queensland's fisheries compliance activities will be partly refocused to deliver an information-driven fisheries compliance program in which compliance resources are directed at areas of highest known risk. Compliance activities will be underpinned by sophisticated risk assessments. There will be greater use of surveillance, gathering of intelligence, forensic accounting and information management to ensure the limited resources available to QBFP are directed at the areas of highest risk. There needs to be an appropriate balance between an information-driven approach and an on-ground presence of QBFP officers.

It is also proposed that stronger inspection and entry powers and more significant penalties be introduced to combat illegal fishing activity, and in particular black-marketing of seafood. Black-marketing can affect sustainability because it is unquantified catch that undermines legitimate investment in the industry and poses potential health risks. Stronger powers will bring Queensland up to the recognised best practice arrangements of other Australian jurisdictions. The use of electronic technology will be maximised to detect possible non-compliant behaviour and to aid QBFP in achieving better outcomes with existing resources and funding.

To increase compliance with area closures, particularly within the Great Barrier Reef, it is proposed that the Government will progressively introduce vessel tracking across all commercial fisheries with tracking first being installed on those fisheries posing the highest risk.

Encouraging voluntary compliance remains a focus and it is proposed that this will be achieved through ongoing education and extension programs that discourage non-compliant behaviour. This approach will be greatly aided by the re-establishment of formal fisheries stakeholder engagement processes and the ongoing investment in electronic technology such as apps.



Reform proposals:

- ▶ Roll out a fisheries compliance program that is driven by information and in which resources are directed at areas of highest known risk.
- ▶ Introduce stronger compliance powers and more significant penalties for fisheries offences.
- ▶ Progressively adopt new technologies including electronic vessel tracking in Queensland commercial fisheries with roll out based on risk.

Questions:

- ▶ Do you support the introduction of stronger powers and more significant penalties for fisheries offences, particularly for combatting black marketing?
- ▶ Do you agree that education and extension programs improve compliance with fisheries regulations?

10. Resourcing

Effective fisheries management requires adequate resourcing. Approximately 60% of the current costs of fisheries management are funded by the community through general government revenue. Recreational and commercial fishers each contribute 20% (or approximately \$4.5 million per annum).

Recreational fishers contribute directly to the costs of fisheries management in two ways—the recreational use fee (RUF) and the Stocked Impoundment Permit (SIP) Scheme in freshwater systems.

The RUF is a \$20 fee charged to Queensland recreational vessel owners as part of their vessel registration fee and has been in place since 1994. However those recreational fishers who do not own a boat do not contribute directly to the costs of managing the state's fisheries resources, while those boat owners who do not fish recreationally are required to pay.

The SIP Scheme was introduced in 2000 and generates around \$1 million per year. Of these funds, 75% is distributed to stocking groups for the purchase of fingerlings or other activities aimed at enhancing the fishery in the Scheme's impoundments. Remaining funds are used for administration of the Scheme.

Commercial fishers and authority holders contribute to the costs of management through annual fees that are payable on the commercial fishing authorities they hold. These fees remain the lowest across all Australian jurisdictions at 2% of the industry's gross value of production.

Future funding arrangements

How fisheries management is to be funded in the long term is yet to be resolved. Moving to a fisheries management system that provides for sustainable, economically viable and resilient fisheries, as proposed by the reforms, will provide benefits for all sectors. As the fisheries reform program develops consideration will need to be given as to how the costs of improved management and reform will be met.



Reform proposals:

- ▶ As the policy develops consideration will need to be given as to how the costs of improved management and reform will be met.

Questions:

- ▶ Do you have any views on the best way to resource fisheries management?

Priorities for fisheries management reform

This green paper outlines the proposed strategic direction of fisheries management reform in Queensland but the proposed reforms will not in themselves result in immediate changes to fisheries management arrangements. It may take a number of years before the strategic reform process has been completed and any new legislative powers put in place. In the meantime however fishery-specific reforms must continue to occur to address existing sustainability issues and the declining economic viability of some commercial sectors. The Government is proposing that in lieu of finalising the strategic reform process, these fishery specific reforms will be guided by the direction proposed in this green paper. Learnings from these processes will be used to refine the strategic reform proposals, ensuring that future management arrangements are effective in the real world and supported by the community.

Indigenous

It is proposed to develop an Indigenous Fishing Strategy with a focus to raise awareness and respect for Indigenous fishing and identify opportunities for increased involvement in fishing related businesses.

Recreational

For recreational fishers to contribute to the proposed rebuilding of stocks to higher levels it is proposed to review current bag limits with a view to simplify current arrangements and reduce limits where required. Further, the type and number of apparatus that can be used by recreational fishers will be reviewed in addition to the size limits that apply to recreational and commercial fishers. In addition, the following Sustainable Fishing election commitments will be progressed –

- ▶ Develop a charter fishing action plan that recognises charter fishing as a distinct fishing activity with an economic benefit for the state, identifies tourism-related potential at a regional level and provides access to the resource with minimal regulation.
- ▶ Sit down with both recreational and commercial fishing organisations to investigate how a commercial net-free fishing area can be best instituted in Moreton Bay for the benefit of the region.
- ▶ Examine further net-free zones after an open application process.

Commercial

For commercial fishers to contribute to the proposed building of stocks to higher levels it is proposed to review fishery management arrangements with a view to further limiting total catch and effort. This may necessitate a restructure within many commercial fisheries that will likely lead to fewer operators fishing with more business certainty and higher profitability.

There are a number of fisheries that are priorities for significant reform, including the East Coast Otter Trawl Fishery, the Mud Crab and Blue Swimmer Crab Fisheries and the East Coast Inshore Fin Fish Fishery. The management arrangements currently in place for these fisheries do not have sufficient capacity to control total catch. While reviews for these fisheries have been ongoing for a long time, no substantial reforms have been put in place. Without reform, these fisheries will continue to decline in economic viability and ability to demonstrate environmental sustainability.

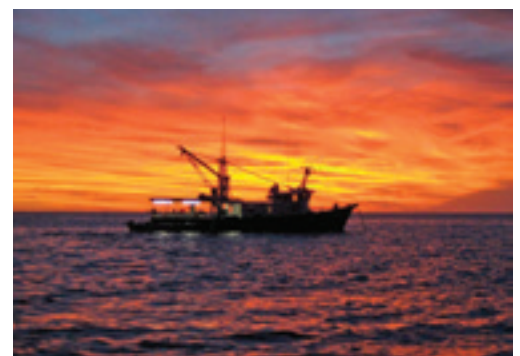


Reform proposals:

- ▶ Proceed with reforms to Indigenous, recreational and commercial fisheries that are required to achieve the proposed rebuilding of stocks to higher levels.
- ▶ Specifically commence reform of the commercial Crab, Trawl and East Coast Inshore Fin Fish fisheries using the direction set by this green paper.

Questions:

- ▶ Do you agree with the proposal to continue progressing required recreational, commercial and Indigenous fisheries reforms?
- ▶ If not, what are your priorities for fisheries management reform?



Have your say

The Government is seeking your feedback on the proposals outlined in this green paper on fisheries management reform in Queensland. You can provide your views on some or all of the reform proposals either online or through a written submission (by email or post).



Online – Complete the online survey at www.getinvolved.qld.gov.au



Email – Send your submission to fisheriesreview@daf.qld.gov.au.



Post – Send your submission to:
Fisheries Management Reform Green Paper
GPO Box 46
BRISBANE QLD 4001

The questions in each section relate to specific issues the Government would like feedback on. However, responses do not need to be limited to the questions posed.

The public comment period is open until midnight on 30 September 2016.

If you would like a hard copy of the green paper, please call 13 25 23.

Additional information is available – see www.daf.qld.gov.au

When making your submission, please keep in mind that information may be provided to persons making an application under laws providing for freedom of information. Personal details will not be included or published in any report.

Next steps

All feedback provided will be considered and taken into account in the development of a strategic policy that will guide the management of Queensland's fisheries resources into the future.

Note: The reforms in this green paper are designed to develop the strategic direction for how fisheries are managed in the future. Feedback on specific management arrangements related to a species or area are not being sought at this time.

Glossary

maximum sustainable yield: the maximum average annual catch that can be removed from a stock over an indefinite period under prevailing environmental conditions

maximum economic yield: the sustainable catch level for a commercial fishery that allows net economic returns to be maximised; generally more conservative (i.e. less harvest) than maximum sustainable yield

shared stocks: fish stocks harvested by more than one sector (e.g. the recreational and commercial sectors)

sustainable stock: generally a stock that is at, or greater in size than, 30-40% of the unfished population. The stock is at a size where it can breed successfully and sustain fishing pressure

unfished population: the size a fish stock would be if it had not been fished





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