FISHERIES ACT 1982

National Competition Policy Review

Final Report

October 2002

CONTENTS

EXECUTIVE SUMMARY

This review fulfils in part the State's obligation under the National Competition Principles Agreement to review legislation and remove from it any provisions that restrict competition unless those restrictions are necessary to achieve a government policy objective. The guiding principle is that legislation should not restrict competition unless:

(a) the benefits of the restriction to the community as a whole outweigh the costs; and
(b) the objectives of the legislation can only be achieved by restricting competition.

The *Fisheries Act 1982* and its subordinate legislation seek to provide a legal framework for protecting the living resources of the waters to which it applies. Primarily this translates to sustainable exploitation of the State's wild fish resources. As such the Act is restrictive in nature.

It is well recognised that without some form of control the market demand for fish will lead to an unsustainable harvest rate. Controls, such as limited entry and setting a total allowable catch, are more likely to ensure sustainability of the State's fishery.

The mechanisms by which effective management of a wild fishery can be achieved vary in their impact on competition from minor to significant. The aim is to utilise those mechanisms that have the minimum impact without jeopardising the objectives of the Act. An example of this is moving from an input regulatory regime to an output one in the management of a fishery where possible.

An Issues Paper was released for comment during the course of the Review. The Issues Paper suggested that a number of provisions contained in the *Fisheries Act 1982* are restrictions for which the costs outweigh the benefits and that they should therefore be revoked during the development of new legislation to replace the *Fisheries Act 1982.*

The Review Panel received 41 responses to the Issues Paper. Summary comments on the responses have been incorporated into this Final Report, where appropriate.

There are many other provisions in the *Fisheries Act 1982* that are considered to have minor anti-competitive elements. The appropriateness of these will be examined in partnership with stakeholders during the development of new fisheries legislation, as will the opportunity of incorporating more progressive legislative management tools.

This review did not consider the provisions in the *Fisheries Act 1982* that deal with farmed fish (aquaculture). These were examined in the development of a new Aquaculture Act.

The Review Panel's view that legislation that limits effort and catch for fisheries in this State is necessary seems to be widely supported by the community, including commercial and recreational fishers.

The management arrangements that the *Fisheries Act 1982* provides for allows limits on the extraction arrangements from a fishery, allocation of fish resources across competing uses, and the widest possible range of choices about how to catch fish. Each fishery is managed according to its particular circumstances, with a mix of access, output and input controls, as appropriate. This ensures the taking of no more, and usually less, than the maximum biological yield at the lowest cost.

Generally, the restrictions that have been examined during this NCP Review are justified on the basis that the benefits to the community outweigh the costs to the community.

RECOMMENDATIONS

1. That the Owner / Operator restriction in the marine scale fishery be further assessed in relation to the benefits and costs to the industry of maintaining such a restriction.

2. That the One Person / One Licence restriction be removed.

3. That the recreational fishing licence issue be revisited by government as a means of ensuring that recreational fishers contribute equitably to the cost of fisheries management in South Australia.

4. That those management restrictions that impact on specific fisheries be referred to the appropriate Fisheries Management Committee for further consideration.

5. That issues such as the case for stronger property rights, licence tenure, corporate and foreign ownership of commercial fishing licences, permanent transfer of quota and the provision of industry services be further considered during the development of new legislation to replace the *Fisheries Act 1982*.

1. INTRODUCTION

1.1. The Obligation to Review Legislation

The South Australian Government is obliged to review all State legislation in accordance with the Competition Principles Agreement. This agreement is one of three agreements signed by the Commonwealth, State and Territory Governments in April 1995 that give effect to the National Competition Policy (NCP). This report on the review of the *Fisheries Act 1982* and its subordinate legislation partly fulfils the State's commitment under the Competition Principles Agreement.

1.2. Scope of the Review

Fisheries management involves restricting what people can and cannot do in relation to fisheries. It also imposes compliance costs on those who participate in fishing. As a consequence many provisions of any fisheries act are restrictive.

This review focuses on those provisions of the *Fisheries Act 1982* that are considered to have significant anti-competitive elements and therefore could distort economic efficiency. There are a number of other provisions that have been found to be minor in their impact on competition. The suitability and appropriateness of these minor restrictions will be considered as part of the development of a new fisheries act - they are in the main not explored in this review.

When the review was initiated, fish farming (aquaculture) was covered by the Act. However, as the Aquaculture Act 2001 was being developed though a separate process (and therefore undergoing NCP analysis), this review excluded those sections of the Act that dealt exclusively with fish farming.

1.3. Issues Paper

During the course of the Review an Issues Paper was released for comment. The Issues Paper suggested that a number of provisions contained in the *Fisheries Act 1982* are restrictions for which the costs outweigh the benefits and that they should therefore be revoked during the development of new fisheries legislation. These include:

- the one person/one licence restriction;
- the non-transferability of licences;
- the restriction on what types of legal entities can hold a licence;
- the restrictions on foreign ownership;
- the limit on number of persons employed in a fishery;

- the owner/operator restriction;
- the seasonal closure on the Southern Zone rock lobster fishery; and
- the prescription of one peak body to represent commercial fishers.

The Issues Paper also recommended that consideration be given to incorporation of the following provisions in new legislation that is be developed to replace the *Fisheries Act 1982*:

- longer term licences, which have attached to them conditions that can be readily varied to reflect changed environment, rather than the current annual licenses.
- Quota to be able to be traded freely and permanently for fisheries.
- Mechanisms which ensure that shares in a fishery resource can be determined in a manner that is of greatest benefit to the State, taking into account economic, social and environmental factors.

The Review Panel received 41 responses to the Issues Paper. Summary comments on the responses have been incorporated into this Final Report, where appropriate.

1.4. Principles Used in a NCP Review

The purpose of the NCP review process is to review legislation and identify for removal from it any provisions that restrict competition unless those restrictions are necessary to achieve a government policy objective.

It is recognised that there is wide community support for Government legislation that protects consumers, public health and safety, and the environment. The review does not consider the policy behind the legislation. Rather it aims to ensure that the policy objectives of Government are achieved in the most efficient manner possible. This is reflected in Clause 5 of the Competition Principles Agreement, which obliges a State or Territory to review, and where appropriate, reform legislation that restricts competition.

The guiding principle is that legislation should not restrict competition unless:

(a) the benefits of the restriction to the community as a whole outweigh the costs; and
(b) the objectives of the legislation can only be achieved by restricting competition.

Put another way, resource allocation decisions should be left to markets unless it can be demonstrated that markets are unable to deliver adequate outcomes in terms of the Government's overarching policy objectives.

1.5. What are the Benefits of Fisheries Legislation

The public benefit of fishing is not the same as the amount of fish caught, the value of those fish and the wages of people involved the sale and transport of those fish. It may also include matters such as:

- that fish are caught efficiently, minimising damage and cost (for each fisher and for management);
- that there be sustainable jobs and incomes within the fishing industry and those associated with it;
- the provision of fish to consumers at the lowest possible cost;
- impacts upon activity in tourism and other industries which support recreational fishing;
- the provision of recreational fishing opportunities; and
- the maintenance of ecosystem diversity and sustainability.

There is often conflict between these benefits where one use of the resource precludes another use. For instance, fish may be taken as commercial catch for market, as bait or breeding stock for aquaculture, as recreational catch, they may be preserved in the wild for breeding, or they may be preserved in the wild as food stock for other species. Each of these uses is mutually exclusive, in the sense that one fish cannot be used for more than one of these purposes. Where there is a conflict, the resolution of that conflict inevitably involves trading off the achievement of one objective against another. The challenge is to allocate fish resources across these competing uses.

1.6. Value of the South Australian Fishing Industry

The gross value of production of South Australia's commercial fisheries for 1999/2000 totalled $166.8 million. Flow-ons to other sectors added an additional $277 million in business income for the State as a whole. The sectors that benefited most were fish processing, other manufacturing, trade, business and property services, finance and transport.

Value added, calculated as the value of output less the cost of goods and services used in producing that output, is analysed to be over $270 million, with almost $135 million generated by the industry directly and another $137 million generated in other sectors of the economy. Total direct employment in 1999/2000 has been estimated to be 2,200 and flow-on business activity estimated at a further 2,150 jobs.

It is estimated personal income of over $64 million was earned in the State's commercial fisheries. This is comprised of both wages by crew and drawings of owner/operator. An additional $60 million was earned by wage earners in other businesses as a result of fishing industry operations.

A summary of economic performance of South Australian Fisheries between 1997/98, 1998/99 and 1999/2000 is set out in Appendix 2.

Much commercial fishing activity takes place in regional areas and impacts significantly on the regional economies where the fishing fleet is located. These areas include Ceduna, Streaky Bay, Port Lincoln, Whyalla, Port Pirie, Kangaroo Island, Clayton, Kingston, Robe, Beachport and Port MacDonnell.

From a recreational perspective there are also benefits that recreational anglers receive from sport fishing which contributes to their standard of living. In addition, recreational fishers expenditures have spin-offs for Australian businesses (eg charter boats and guide operations, gear and tackle suppliers, tourist firms) that serve those persons.

The "value" of these attributes is difficult to quantify. Some can be measured by dollars. However, the satisfaction and social benefits can only be determined in a qualitative manner. Certainly, large numbers of persons participate in recreational fishing: 24-32% of the metropolitan population and 43-51% of the country population.

The contribution of the commercial and recreational sectors to the State's economy emerged as a contentious issue in responses to the Issues Paper. Commercial fishers believe that Government investment in the recreational sector is inequitable, attributable to inflated estimates of the number of recreational fishers and the economic contribution of the sector. Conversely, recreational fishers believe that the socio-economic contribution they make to the State is undervalued.

Nevertheless, the estimated total South Australian fishery expenditure in 1997 on petrol, ice, bait, tackle, accommodation, food and drinks by all fishers was $350 million. Estimated total replacement value of rods, reels and tackle owned by South Australian fishers was $219 million, and the total replacement value of boats owned by South Australian fishers was $893 million.

The community as a whole has an expectation that certain fish or marine mammals will be preserved and certain areas of national or biological significance will be protected. While the benefits of achieving these expectations are difficult to measure, they cannot be omitted from the assessment of benefits and costs.

1.7. The Legislation

Restrictions on competition arise not so much from the *Fisheries Act 1982* itself, but more from the regulations and management tools applied by fisheries managers. For example the Act requires a licence to be held by participants in a fishery. This in itself is not restrictive, rather it is the criteria for granting a licence and the conditions attached to it that may impose the greatest restrictions.

Therefore, to satisfy the requirements of clause 5 of the Competition Principles Agreement, the following legislation has been reviewed as a whole:

Fisheries Act 1982
Fisheries (General) Regulations 2000
Fisheries (Exotic Fish, Fish Farming and Fish Diseases) Regulations 2000
Scheme of Management (Miscellaneous Fishery) Regulations 2000
Fisheries Act (Aquatic Reserves) Regulations 1989
Scheme of Management (Prawn Fisheries) Regulations 1991
Scheme of Management (Lakes and Coorong Fishery) Regulations 1991
Scheme of Management (River Fishery) Regulations 1991
Scheme of Management (Rock Lobster Fisheries) Regulations 1991
Scheme of Management (Abalone Fisheries) Regulations 1991
Fisheries (Fish Processors) Regulations 1991
Scheme of Management (Marine Scalefish Fisheries) Regulations 1991
Scheme of Management (Blue Crab Fishery) Regulations 1998
Fisheries (Management Committees) Regulations 1995

2. CENTRAL ISSUES

2.1. Objectives of the Act

Section 20 the *Fisheries Act 1982* states that the principal objectives of the Act are:

(a) ensuring, through proper conservation, preservation and fisheries management measures, that the living resources of the waters to which the Act applies are not endangered or over-exploited; and

(b) achieving the optimum utilisation and equitable distribution of those resources.

The management of specific fisheries is achieved by the implementation of Schemes of Management set out in the Regulations. There is a separate management plan for each of the abalone, miscellaneous, marine scalefish, lakes and Coorong, river, rock lobster, blue crab and prawn fisheries. These management plans expand upon these two principal objectives as follows:

- biological objectives - maintain a fishery at sustainable levels and the harvest at sizes likely to provide adequate levels of recruitment;
- economic development objectives - provide for the fair and reasonable economic benefit to licence holders and the community and to recover a fee from licence holders sufficient to cover the costs of management, research and compliance, and provide for economic efficiency and flexibility in management arrangements by developing harvesting strategies that minimise costs to optimise yield;
- environmental objectives - minimise environmental impacts from the effects of fishing and promote conservation measures in habitats worthy of higher conservation status; and
- social objectives - allow for the maintenance and provision of reasonable levels of access to recreational fishers; providing a safe source of seafood to the community, to promote a high level of awareness of occupational health and safety and welfare issues for skippers and crew, and to inform and educate the community and provide for regional employment in the fisheries.

All of the management plans place a greater or lesser emphasis on each of these aspects.

Sustainability

Section 20(a) requires that fisheries resources are managed in a sustainable manner ie not endangered or over-exploited. What does this mean? A species can be considered over-exploited when it is being exploited above a level that is believed to be sustainable in the long term, with no potential for further expansion

and a higher risk of stock depletion. This clause is interpreted as a requirement for "sustainability" in fisheries.

The *Commonwealth Endangered Species Protection Act 1992* says that a species can be considered endangered when it: "is likely to become extinct unless the circumstances and factors threatening its abundance, survival or evolutionary development cease to operate, or where its numbers have been reduced to such a critical level, or whose habitats have been so drastically reduced, that it is in immediate danger of extinction."

This would seem to imply that the first objective of the government, as expressed through the legislation, is to not only address issues of extraction but also habitat degradation (ie manage the fisheries in an ecologically sustainable manner) and that management decisions must consider the community benefits from maintaining higher levels of stocks.

It is believed that ensuring the sustainability of the living resources of the waters that the Act refers to is an objective that is still widely supported by the community and therefore a valid legislative objective for Governments. This view would appear to be supported by a general movement in both Commonwealth and State legislation to focus on ecological sustainability as a primary objective (eg the recent enactment by the Commonwealth of the *Environment Protection and Biodiversity Conservation Act 1999*).

Optimal Utilisation and Equitable Distribution

Section 20(b) requires that the Minister achieve the 'optimal utilisation' of the fish resource, as well as 'equitable distribution' of the resource.

In this context optimal utilisation is taken to mean ensuring the efficient use of the State's fish resources. There are several dimensions to this. Firstly, it usually requires some limitation of the extraction rate from the fishery to ensure sustainability. Secondly, it requires some allocation of the fish resource across competing users – commercial and recreational. Thirdly, it requires that those extractive users be allowed, insofar as is consistent with effective management, to have as wide as possible a range of choices about how to catch their fish.

These imperatives usually require management arrangements that ensure the taking of no more, and usually less, than the maximum biological yield of the fishery at the lowest cost. Lowering the cost is usually achieved by using the least number of boats and fishing labour to take this catch – this can be achieved by allowing market driven efficiencies to operate within the fishing industry, so that efficient operators can obtain larger shares of a fishery by buying out less efficient operators who then leave the fishery. In this way the market will act to reduce the number of operators to a level where viability or profit is maximised. It was the view of one respondent to the Issues Paper, a peak seafood industry

organisation, that any legislative provision that inhibits the operation of market mechanisms should be removed.

This economic efficiency objective is tempered by the other objective of equitable distribution of the fishery. The precise meaning of equitable distribution is ambiguous, but the Review Panel anticipates that it would include matters such as:

- a desire to provide some economic security for professional fishers who have a reliance on the fishery resources;
- a desire to provide access for recreational and indigenous fishers to some fisheries; and
- a desire to accommodate the non-fishing community's interests which relate to matters such as sustainability, regional economic development, etc.

The Review Panel considers that apart from maximising productive capacity as outlined above, the optimum utilisation objective must also take into account allocative efficiency, which recognises that allocation of fish resources to the recreational sector and non consumptive uses also amount to real socio-economic benefits. In other words there may be greater economic value put on certain fish stocks by recreational fishers (as measured by economic measures such as "marginal willingness to pay") than is placed on those stocks by the commercial sector. Tourism-related benefits from recreational fishing and eco tourism also need to be taken into account in optimising allocative efficiency.

It is an intrinsic feature of the fisheries resource that it is impractical to implement a market to allocate the resources across all competing uses. The Act does not attempt to provide such a market mechanism to directly achieve allocative efficiency, and nor should it – it would fail. Allocative efficiency in this broad sense requires policy judgement by the Government based on sound evidence.

The Review Panel considers that in reviewing this Act, the optimal utilisation objective needs to be met by first determining and maximising allocative efficiency, and then focusing on maximising productive efficiency of the commercial sector.

Two responses to the Issues Paper sought to clarify the objectives of the Act to their satisfaction. It was the view of another two respondents that the socio-economic role of the recreational sector should be explicit in the objectives while a fifth respondent suggested that the Act should provide for truth in labelling and habitat protection.

2.2. Rationale for Regulation

As discussed above, the Act is restrictive. Therefore the first question to ask is whether legislative provisions are needed to manage the resources of the waters to which the Act applies.

It has been demonstrated in many fisheries around the world that unimpeded competition between fishers invariably leads to overexploitation of the resource resulting in the disappearance of profits and ultimately collapse of the fish population. This predicament, usually referred to as “the Tragedy of the Commons”, arises wherever there is unrestricted access to a common property resource. Because no one person owns the resource, no one bears enough of the cost of its depletion to deter them from depleting it.

This same conclusion has been reached in every other review of fisheries legislation that has been undertaken in Australia recently, and the Review Panel believes that it is an uncontroversial starting point for this Review. Given this, it is unnecessary for this review to revisit the necessity for restrictive legislative provisions to limit effort and catch for fisheries in this State. However, the way in which those restrictions are implemented has been carefully considered.

2.3. Hierarchy of Effectiveness of Restrictions

There is a range of mechanisms that can be used to allocate a scarce resource and the effectiveness of these mechanisms in terms of ensuring that resources are allocated to their highest valued uses will vary. The diagram below presents a ranking of these mechanisms from most to least efficient under “textbook” assumptions about the market in question - ie that property rights are well-defined and enforced at no cost, that transfers of property rights are costless, that no market participant can dominate the market, that there are no “public good” aspects to any of the potential uses of the resource in question and that distortions in other markets are not such as to affect allocation of the resource under consideration.

Most Efficient

* Property rights - full title, transferable
* Tradeable leases
* Output measures
  - Individual transferable quotas
  - Fixed share of a total allowable catch
  - Unallocated total allowable catch
* Access controls
  - Unencumbered trade in licences
  - Attached tradeable rights (licences/boats)
  - Non tradeable authorities/licences
* Input controls
  - Tradeable quantitative boat/gear limits
  - Boat/size limits
  - Gear restrictions

Least Efficient

In an ideal world it would be more appropriate to use the least restrictive measures to manage natural resources. However, many of those assumptions are not borne out – there are considerable costs in defining and enforcing property rights to fisheries and there are significant public good issues. Consequently, a range of legislative provisions are likely to be required, depending on the circumstances of specific fisheries.

Factors that need to be taken into account when considering the most appropriate legislative mechanism for a particular fishery include public interest considerations, social objectives, cost of enforcement, lack of an appropriate data set to enable informed decisions to be made and historical considerations.

Those who responded to the Issues Paper share this position. There is healthy regard for the "Tragedy of the Commons", while no one is opposed to regulation to achieve sustainability. The prevailing view seems to be that each fishery should be managed according to its particular circumstances, with a mix of access, output and input controls as appropriate. Changes to arrangements currently in place should be based on biological, economic, environmental and social goals - not ideology. It was the view of one fisher that an Environmental Management System could be mandated, as it allows for auditing of commercial fisheries, enabling all impacts to be identified and subsequently managed.

2.4. General Categories of Restrictions and Associated Costs

Definition of the Resource

Some restrictions define the resource that is available to be used by fishers. These include restrictions concerning minimum and maximum size, legal fish, fish not to be taken, areas not to be fished, the total allowable catch (TAC) from the fishery and closed seasons. Taken together these types of restrictions determine the supply of fish to the market and the size of the industry.

If they are set too stringently, they unnecessarily restrict the overall size of the industry and the supply of fish to the market resulting in diminished public benefits. If they are not set stringently enough unsustainable fishing practices may be adopted, resulting in a diminished future fish stock and diminished public benefits. It was the view of respondents to the Issues Paper that any restrictions should be applied consistently in all relevant fisheries.

Input controls

Input controls include limits on boat numbers and/or sizes, gear restrictions and methods of fishing. Although expressed in terms of inputs, their primary objective is to control the output from the fishery.

The main benefit of input controls is relatively low administration costs. They are also considered an effective mechanism of minimising by-catch and thereby minimising the adverse impact of fishing.

However, there are two major problems with input controls. Firstly, they have a relatively high regulatory cost due largely to substitution towards uncontrolled inputs. Secondly, they do not encourage or allow minimal cost per unit of effort. To be effective they should be based on controlling inputs for which fishers have little possibilities of substituting. There is a danger of escalating regulation and increasing regulatory costs (higher administration costs, inefficient input mixes, reduced responsiveness to change, etc).

The view was expressed by one respondent to the Issues Paper that permanent transfer of gear entitlements should be allowed.

Access controls

The most common access control is the limitation on the number of participants in a fishery through a licensing regime.

Access controls involve potentially very serious restrictions on competition because they can be used to restrict market entry and raise obstacles to market exit if not fully transferable (competitive markets derive their efficiency properties from freedom of entry and exit).

Access controls have an advantage in that they can be used to limit fishing effort to some degree without restricting how fishing operations take place. However, access controls, alone, are usually not sufficient to prevent over-fishing and are, in most cases, supplemented by input or output controls.

Output controls

A system of output controls specifies directly the amount of fish to be caught and a mechanism to allocate the catch among fishers.

The main advantage of output controls is that they are directly focussed on the sustainability objectives. They allow greater flexibility and efficiency in the fishing technologies to be utilised. However, they generally involve higher administration and compliance (information requirement) costs than input controls. An additional disadvantage is that, in some cases, output controls can create incentives for wastage (ie high grading to obtain highest quality fish within the catch quota).

One type of output control is called the “Olympic” system – this sets a TAC and then to let fishers compete for shares of the catch, with the fishery closed when the TAC is met. However, this can result in wasteful competition (racing for fish)

while the fishery is open and will not ensure the catch is taken at minimum effort or cost.

According to DPIE (1989), setting a TAC "does nothing to prevent resource rent dissipation - the incentive for each fisherman to take as much of the catch as possible remains - and as a result fisheries managed in this way have been characterised by increased capitalisation in boats and ever shorter fishing seasons." (p.23)

Furthermore, it will not generally lead to an efficient timing of the catch. In some overseas fisheries Olympic management systems see the entire year's catch landed and marketed in a few days, rather than over a longer period that is more likely to match consumer demand. The importance of these timing issues can easily be seen when one considers the value differentials that can arise between fish which are supplied fresh for table use and those which are sold to canneries.

Allocating shares of a TAC as individual transferable quotas (ITQ) encourages more efficient (or least cost) fishing practices as it removes the incentive for fishers to apply excessive effort and it creates an environment where the timing of catches can be better matched to consumer demands. ITQs can be implemented by allocating tonnages to licensed fishers with the total allocations equal to the TAC. ITQs are currently used in the abalone, blue crab, pilchard and rock lobster fisheries in South Australia.

A disadvantage of the ITQ system is the need to set a TAC. According to DPIE (1989), "even in fisheries where there is sound knowledge and understanding of the biology of the resource, implementing ITQs can be difficult if it is not possible to predict catch levels with a reasonable degree of accuracy. For example, in fisheries based on species with a short life cycle and subject to considerable environmentally caused fluctuations in stock levels, it may not be possible to accurately predict an annual total allowable catch. In these situations it may sometimes be possible to set a conservative quota initially, revising the quota later in the season if appropriate." (p.24)

To some extent the problem of imperfect knowledge is also faced by all other regulatory based approaches. However, under a system of input controls, there may be a coincidence of actual stock and catch levels: when stocks are low, catch per unit effort will also tend to be low. This is potentially attractive feature of input controls – a kind of real time adjustment of extraction rates that is not achieved under output controls as the setting of those controls relies on less timely scientific information.

Whatever control method is used, the commonsense approach to handling uncertainty is to set a conservative TAC. This may not involve significant economic costs as a conservative quota will be closer to the economic sustainable catch, which will always be below the maximum sustainable catch.

For those fisheries where there is a significant recreational catch, the TAC will have to include both commercial and recreational catches. In doing so the problem arises with ensuring the recreational sector stays within its catch limit - currently this is usually done by bag limits, gear limits, closed seasons, etc. each of which has its own compliance problems, although these can be minimised by increasing penalties. Of course, in many instances the recreational catch is sufficiently small that managers can be confident that whatever fluctuations do actually arise in the recreational catch are unlikely to materially affect the aggregate catch.

These considerations lead to the conclusion that output quotas are most suitable to high value, single and long lived species fisheries with stable population dynamics that are easily targeted. They may be less suitable for fisheries that do not have these characteristics.

This issue did not generate much interest among respondents to the Issues Paper. Only five respondents offered comments, which ranged from the need for better research on fishery populations and biology to allow more accurate TACs to be determined to the permanent transfer of quota being allowed. It was the view of one industry organisation that basing TACs on maximum economic yields rather than maximum sustainable yields would prove costly for many commercial fishers (as maximum sustainable yield maximises gross income from a fishery). Concern was expressed by another industry organisation that fishing rights conferred by quota could be eroded just as easily as rights embedded in an input control regime.

It was the view of one commercial marine scale fisher that quota management arrangements for individual species in the marine scale fishery are unsuitable because of the fishery's multi species nature and because very few species are tightly schooled. Compliance costs of TACs or ITQs for individual species would be prohibitive.

Compliance and Enforcement Costs

A number of restrictions have the sole purpose of allowing the regulatory authorities (primarily PIRSA Fisheries Compliance Unit) to enforce the regulations. These include provisions or restrictions relating to offences, penalties, inspection procedures and powers, record keeping and other compliance matters. These involve costs in terms of salaries, materials and overheads. As the fishing industry contributes to the costs of managing the fishery, these costs will raise the costs of fishers.

Enforcement may also require modifications to the way in which fishers conduct their affairs or cause them to undertake activities they would not otherwise undertake. For example, they may be required to keep records that they otherwise would not keep as part of their normal business practice or have

equipment that they otherwise would not purchase. These costs may be termed 'compliance costs'. These considerations cannot rule out the need for some compliance activity because, without it, fishers' protected access to fisheries would have little meaning and the profits they derive from protected areas would be eroded away by overfishing. The challenge is to strike a suitable balance between the effectiveness of the compliance regime and its costs.

As an example, the requirement to obtain a licence, which is a mechanism to ensure compliance with the provision of the Act, generates compliance costs.

The costs of acquiring a licence are likely to be high if:

(a) the prescribed manner or form for application, or renewal of a licence, is unusual in its requirements;
(b) the information to accompany the application is voluminous or otherwise difficult to compile.

Enforcement can also result in efficiency costs if it affects the level of competition in the market, the competitiveness of some fishers relative to others, or the competitiveness of fishing relative to other businesses.

2.5. Impact of Uncertainty of Correct Imposition of Restrictions

In many instances there is the high degree of uncertainty concerning fish stocks and their sensitivity to environmental factors and fishing activity. While considerable monitoring and research is undertaken on these issues, fishery managers are operating with imperfect knowledge - and to some extent always will be, as management information is costly to obtain. Even if the level of sustainable yield was known at a point in time, it is a moving target as it depends on a wide range of variables (eg environmental) beyond the control of the regulator. Furthermore commercial fishing activities can change much more rapidly than the period necessary to undertake research.

In the presence of such uncertainty, regulators have tended to adopt pragmatic and conservative approaches to fisheries management – the precautionary principle. Such a precautionary approach to management is justified so long as the expected cost of setting a target that is higher than the social optimal is greater than the costs of setting a target that is too low.

For example, a target set too low may reduce net benefits proportionally to the reduction in fish caught. However, if the target is set too high, this may lead to a progressive decline in fish stocks (and the benefits generated over time) and the fishery may never recover. In this case, the costs of too strict a restriction would be a relatively small amount each year whereas the costs of a restriction that is too loose may be very large.

There would appear to be general community support for adopting a conservative approach in the setting of targets due to the high degree of uncertainty concerning fish stocks. Fishery management policies over decades now have recognised that management decisions about the commercial take can be harmonised by giving commercial fishers a say about how much the take should be and, at the same time, giving them an interest in the future of the fishery. Arrangements like this create incentives for commercial fishers to make realistic choices about the trade-off between current catch levels and stock conservation as they can reap the benefits of good stock husbandry decisions.

General observations of those who responded to the Issues Paper are that management arrangements need to take account of the changing nature of fishing technology and that better data collection and analysis will lead to more informed decision-making.

2.6. Alternatives

There are a number of alternative approaches that can be taken to the regulatory mechanisms currently used. These are outlined below. The practicality and economic efficiency of these will be compared against the mechanisms currently used during the development of a new Fisheries Act.

Abandon Regulation

The minimalist regulatory position is to have no controls over the fishery and let market forces prevail. However, fish are a common property resource and market forces are, when used in isolation, inadequate to bring about effective management of the resource in a number of situations. Rather there is a high probability that the fisheries will be overfished and ultimately collapse. Nevertheless, where the opportunity exists to move to a less prescriptive regime it should be taken.

Increase Degree of Private Property Rights

Under some conditions the most efficient approach to fisheries regulation is to create private property rights to the fishery. That is, to divide up the fishery and allocate rights to individuals or groups to fish a particular area exclusively. Private property rights have been used in some overseas fisheries (eg Chatham Island abalone).

The primary attraction of private property rights is that it gives the owner a greater stake in the resource and therefore a greater degree of interest in the future of the resource. Even where there are externalities, it is possible that market transactions will occur which agglomerate separate property right holdings and thus “internalise” those externalities. For instance, a market response to a fishery with several fishers might be to buy all the rights into one

entity that can then save some compliance costs, etc

A major difficulty with the application of a firmer set of property rights is that the property rights proposed are typically for commercial fishers, not for recreational users or those with a non-use interest in the fishery. Wild fisheries are inherently unpredictable, facing varying stock levels and feasible extraction rates. So, the provision of guaranteed rights to commercial fishers amounts to shifting the fishery risks to other interest groups – be they recreational fishers, the community at large if environmental degradation occurs, or the taxpayer if the Government creates a situation where it is obliged to compensate commercial fishers as a result of future policy responses which are demanded by unforseen environmental events.

Private property rights are suited to those fisheries where the resource can be delineated, the nature of the property right can be clearly defined and owners of the property are able to exclude others. They are suited to those fish species that remain throughout their lives in the one area. Oysters, for example, grow in relatively shallow waters, where it is possible to mark and police boundaries, and are sessile, which means that they stay within the boundaries.

A variation on the private property rights is to assign an entire fishery to a single entity, such as a cooperative or company, and invest that entity with the responsibility and powers to manage the fishery subject to the achievement of certain objectives. This may be an effective way of maximising pressures for compliance, of internalising many externalities and of enforcing the regulatory burden. In terms of policing for illegal fishing activities, members of the cooperative may have greater incentives to report infractions or to apply pressure to prevent infractions. Moreover, there may be certain economies in giving those already on the water greater responsibility to enforce the regulations.

If a greater degree of security in property rights is to be provided, there is a case for seeking commensurate payment from the beneficiaries. If society, via the Government, could be compensated by a payment equal to the market value of the additional rights transferred into private ownership, there may be no equity or competition policy concerns. Rather than being paid a rental or royalty, society would be compensated by a lump sum. If allocated by competitive auction, the discounted net present value of the amount received would be approximate in value to the stream of royalty payments.

A further important issue concerns the initial allocation of such rights. For new fishing grounds, competitive tender would be the most efficient method of allocation of private property rights. When rights to an area exist, private property rights could be allocated in accordance with the relative holdings of existing rights to the fishery (eg, holdings of quota units). An alternative would be to buy back existing quota holdings at fair market prices and then to auction these rights re-packaged into private property rights.

On the basis of these considerations, it would seem that the degree of private property to be introduced is a question of degree, rather than absolutes. In some fisheries it will always be the case that the participants in the fishery bear a significant amount of the risk associated with the fishery. However, there might be a case for creating firmer rules about how the fisheries are to be managed and how the fishers' shares in the fishery will be adjusted in the light of changing circumstances.

Of ten respondents to the Issues Paper who commented on this issue, which included three industry organisations, nine argued the case for stronger property rights. The support of one respondent was conditional. The final respondent was concerned that the position on property rights articulated in the Issues Paper is narrow and out of date.

The basic tenet of the responses is that increased "private ownership" of the resource results in better management and enhanced sustainability. Conversely, the absence of clearly defined property rights for user groups:

- impedes investment and new entrants,
- restricts access to development capital,
- perpetuates inappropriate and wasteful risk premiums,
- leads to short term decision making about the broader marine environment, and
- results in over-investment in short term catching capacity.

Accordingly, in the respondents' view, the most efficient way to manage the resource is to allow for full title in property rights, which should be tradeable in the market.

Resource Rent Taxes (Royalties)

The sustainable catch and economic efficiency objectives of the Act may also be achieved through royalties. Taxes are commonly used in Australian and overseas to regulate fishing activity, especially in fisheries that generate significant economic rents over and above the costs of exploitation. Where there is an equitable distribution objective, there is a case for extraction of those rents by government intervention.

In principle, a royalty can be used to achieve optimal utilisation of the resource and equitable distribution. A royalty may involve less restriction on competition than a quota based management system. This is because there would be no need to limit entry as there is in a quota-based system. With an optimal royalty there would be no incentive for entry into the industry as there would be no excess profits or rents. While there would be a need for licensing for tax collection purposes, there would be no need for regulators to set the number of licence holders, as the market would determine this.

However, there are problems in designing and implementing royalties. In addition to identifying the optimal sustainable catch, there is the added difficulty of estimating the royalty necessary to achieve that outcome. This requires detailed knowledge of industry costs and knowledge of the technological options facing fishers. While this is the case, taxes could be introduced in principle, their effects observed and then adjusted in response to these observations. Even if a tax based output control mechanism were introduced, some regulation of fishing methods would still be required to ensure compliance.

In fact, the most persuasive argument for a royalty may be an equity one – that fishers who have a privileged position in terms of access to a community resource should make a payment in respect of super-profits that may arise from the access right. Clearly this is a contentious issue and a view as to what is equitable would need to take into account the circumstances of specific fisheries and fishers.

Of ten respondents to the Issues Paper, two argue that resource rents / royalties would achieve a more equitable distribution of the resource. Another two offered conditional support for resource rents: one in exchange for more secure licence tenure and the other as a replacement for licence fees.

One respondent is not convinced of the merits of resource rents / royalties in a quota fishery while it is the view of another that resource rents / royalties would only lead to greater effort, further depleting fish stocks.

The final five, including 4 industry organisations, share the view that claimed “super profits” and a resource rent response demonstrate a lack of understanding by the Review Panel of commercial fishing, the investment that has been made in developing the industry and the risk taking which is required to ensure continued efficient operation. On this basis, they argue that resource rents should be explicitly dismissed as an option for future development and management of the industry.

3. RESTRICTIONS ON COMMERCIAL FISHING GENERALLY

The Act and Regulations impose restrictions upon competition that have general application to all fisheries. These issues are discussed in general terms and, where possible, resolved in this section. However, some of these matters need to be discussed in the context of specific fisheries – this later category is discussed in Section 4.

3.1. Closed Seasons

Section 43 of the Act allows for the Minister to publish a Notice in the Government Gazette to declare that it is unlawful for a person to engage in a fishing activity of a specified class during a specified period. This section is used for regulating fishing days in the prawn fisheries, emergency closures and seasonal closures in other fisheries. Urgent action to safeguard public health or protect living marine resources may direct persons "on the spot" not to engage in fishing activity of a specified class during a specified period. Seasonal closures are in the main associated with reproductive cycles. The species that are subject to closure are prawn, rock lobster, giant crab, blue crab, Goolwa cockles and Murray cod.

These restrictions have a significant impact on competition. For example, it is the view of respondents to the Issues Paper that closed seasons interrupt continuity of supply of product to the market, leading to boom and bust fishing. They also create difficulties for new entrants with high costs to cover. Nevertheless, industry accepts closed seasons if their purpose is to protect reproductive cycles of the fish stock and if they can be supported by scientific evidence.

The Review Panel considers that the benefits of these restrictions outweigh the costs.

3.2. Size Limits

Minimum sizes apply to almost all fish taken by commercial and recreational fishers in accordance with accepted principles of fisheries management to sustain fish populations and related ecosystems. The impact of these restrictions is considered by the Review Panel to be intermediate.

Particular size limits in South Australia are based on scientific knowledge of each species, which is obtained primarily from SARDI research.

The prevailing view of respondents to the Issues Paper seems to be that while size limits are supported for protection of fish stocks, there is a need for greater dialogue with industry before changes occur, particularly given the cost implications of gear charges. There is concern that recent size limit increases will impact adversely on undersized and by-catch mortality.

The Review Panel considers that size limits in all cases represent bona fide sustainability objectives and are an appropriate restriction with positive benefits, despite the costs to fishers in using methods to avoid catching undersized fish, or mortality costs arising from the return of such fish to the water.

3.3. Protection of Certain Species

Section 41 of the Act prohibits persons from engaging in fishing of a prescribed class. It ensures that certain species such as the white pointer shark, sea-horses, blue groper and marine mammals are protected. Section 41A restricts the killing, injury or molestation, or taking, selling or purchasing of marine mammals. No offence is committed unless it is negligent and intentional, or the act was not authorised under another law.

This constitutes a restriction on competition. It removes the opportunity for persons to compete with those countries that still trade, for example in whales, dolphins or seals and potentially stops them from entering these markets exclusively or to increase profit or defray expenses by selling marine mammals or other protected fish, as incidental to their other fishing activities.

This 'restriction' however satisfies a wide public expectation that marine mammals and certain species should be protected whether or not they are present at sustainable levels. Additional United Nations Conventions to which Australia is a signatory, place obligations upon Australia to preserve migratory marine mammals such as whales and dolphins.

The Review Panel considers that the community objective of protecting these species is achieved effectively through this mechanism.

3.4. Catch/Effort Limits

Catch limits apply to all commercially and most recreationally exploited species to ensure that there is no risk of overexploitation and collapse of the stock, and adverse affects on related ecosystems. Total catch limits may be expressed by either an explicit TAC in a quota fishery, or in terms of an estimated catch for the fishery. The target estimated catch might not be explicitly calculated but implicit in the input controls chosen. In such a regime input controls can be eased where there is evidence of stock abundance, and tightened where there is evidence of stock shortage.

Explicit catch limits and input controls are based on management judgement, informed in turn by SARDI and PIRSA Fisheries research and analysis which takes into account all sources of mortality on a particular stock, and by input from fishers through Fishery Management Committees. SARDI produces annual stock assessment reports on all major fisheries, which is the basis for setting catch limits. The "maximum sustainable yield" is the maximum level of catch that can be sustained year after year on a biological basis.

However, fishing at the "maximum sustainable yield" does not equate to an economic optimum. While catching at the maximum sustainable yield will produce the maximum gross revenue or income from the fishery, the marginal cost of catching the fish near the maximum sustainable yield is inevitably higher than the economic benefit obtained. Therefore, the maximum economic yield of a fishery is at a lower catch level than the maximum sustainable yield.

The maximum economic yield is defined as the level of catch where the total value of the catch exceeds the total costs of production by the greatest amount. This difference is usually referred to as the "economic rent" of a fishery, and varies between fisheries depending on the return from the fishery. PIRSA Fisheries does not currently calculate maximum economic yield, as it is not collecting sufficient reliable economic data on fishing costs and revenue to calculate this point on the production curve.

In all fisheries the catch limit is currently set with the priority on attaining, as far as possible, the estimated maximum sustainable yield of the particular stock.

Focussing on the economic yield rather than the sustainable yield would provide two major benefits. Firstly the risk of overfishing would be lowered, as the catch level for maximising economic yield is lower than the maximum sustainable yield. Secondly, the economic returns to fishers will be maximised. This satisfies the objective of optimising the utilisation of the fishery.

The Review Panel considers that the impact of catch limits generally is 'serious' but that they are an essential restriction to ensure sustainability, and that the benefits of catch limits far outweigh the cost of these restrictions.

The Review Panel also considers that the current process for setting catch levels on biological grounds is appropriate, as best endeavours are used to obtain the best scientific information and modelling available to assess the maximum sustainable yield.

Finally, the Review Panel considers that calculation and use of the economic yield of fisheries is the management concept most consistent with the optimum utilisation objective of the Act. Of course, the uncertainties surrounding this concept cannot be dismissed and a degree of judgement will always be required.

3.5. Input Restrictions

Input restrictions of one type or another are a feature of most fisheries. If a catch limit is required, then a choice needs to be made about whether to implement a system of output controls or input controls. Where compliance costs are low, a system of output controls is likely to be preferable because it allows fishers a high degree of flexibility in choosing their fishing technologies. However, where compliance costs are relatively high it may be possible to reduce those costs by using a system of input controls. In effect, the costs of any induced inefficiencies in fishing technology need to be traded off against benefits in terms of reduced compliance costs.

The most common types of input controls are limits on boat numbers, gear, or number of people fishing.

3.5.1. Restriction on Boat Numbers

Section 34(2) of the Act requires any boat used in a fishery is to be registered and the boat owner to have licence to operate in the fishery. In practice the Director grants multiple registrations to licence holders, but they cannot be used at the same time.

Costs

- Limits the number of boats able to be used for fishing, and thereby potentially limits efficient practices.

Benefits

- Simplifies compliance and therefore keeps compliance costs low.
- For input managed fisheries (eg. prawns and marine scale) it restricts effort and therefore helps achieve sustainability.

In the absence of any Issues Paper response opposing this restriction and the receipt of two responses favouring its retention, it is reasonable to assume that industry stakeholders share the Review Panel's assessment that the restriction does not have a major impact on competitiveness.

3.5.2. Limits on Number of Persons Employed

Section 34 of the Act only permits a licence holder, or his agent to engage in fishing. The following table demonstrates the range of restrictions for both shore and boat based fishing.

FISHERY	AGENT RESTRICTIONS
Abalone	Licence conditions restrict only one person including an agent of the licence holder to take abalone on any one day.
Lakes & Coorong	Only two “agents” can fish at same time as the licence holder. For shore operations can have 3 shore fishing at same time under the licence. For boat operations, can have one person in each of 3 boats under the licence, as long as the licence holder is one of them in a registered boat.
River, Marine Scale and Miscellaneous	For boat operations, only one boat at a time but no limit on the number of people in the boat. For shore fishing, can only have two agents fishing at the same time as the licence holder.
Restricted Marine Scale Fishery	Only one agent allowed on boat or shore.

These are considered intermediate restrictions.

Costs

- Difficult to monitor.
- The restrictions impose unacceptable occupational safety risks for fishers.

Benefits

- Increase sustainability of the fishery by reducing effort.

The retention of agent restrictions is supported as an appropriate management tool by those marine scale fishers who chose to respond to the Issues Paper.

One respondent suggested that agent restrictions in the marine scale fishery were aimed at unscrupulous licence holders who used their boats for charter operations using paying passengers as defacto crew. It was his view that once charter operations are regulated, the Department of Transport should determine manning levels for boats.

It was the view of one abalone fisher that an agent restriction seems unnecessary for abalone fishers who each have a TAC.

The Review Panel considers that the restrictions should only remain for specific fisheries where agent restrictions are an important component in restricting fishing effort. The Goolwa Cockle fishery and shell and worm collection are examples.

3.5.3. Owner/operator

In several fisheries the Regulations require that the person registered as a master must also be the licence holder. Substitute masters are permitted by the Director of Fisheries for official fisheries business eg fishery management committee meetings and for sickness of up to 3 months at a time on presentation of a medical certificate.

This is considered to be an intermediate restriction.

Costs

- Lack of efficiencies in scope including the inefficient allocation of labour within the business.
- Licence holder may not be capable of carrying on the activity. Days lost will represent idle capital which will be difficult to make up.

Benefits

- It is an administratively simple way to limit fishing effort.

The restriction is probably the most contentious issue addressed during the course of the Review. In the Issues Paper, the Review Panel put the view that the restriction should be removed.

Many commercial marine scale fishers who responded to the Issues Paper hold strongly to the view that the restriction must be retained, on the basis that it is an important tool in the ecologically sustainable development of the fishery. Without it, significant latent effort may be realised, leading to rapid depletion of spawning stock and a sharp decline in fish stocks. This line of reasoning was also advanced by the State's peak organisation representing recreational fishers.

Conversely, some other commercial fishers favour removal of the restriction so they can better utilise their fishing assets. In doing so they will increase the return on the funds they have invested in those assets and facilitate efficiency gains in the industry. They argue that potential effort increases in the marine scale fishery can be managed through appropriate catch and effort management mechanisms, as is the case in other fisheries.

Some marine scale fishers acknowledge that compensating measures such as gear restrictions, closures and licence reductions could provide an alternative to the restriction. However, these measures would impact adversely on the viability of marine scale fishers, their families, their communities and the economy.

The Review Panel understands that there has been a recent review of the marine scale fishery and that a new management strategy is being developed. It is the

view of the Review Panel that the Owner / Operator restriction in the marine scale fishery should be further assessed in relation to the benefits and costs to the industry of maintaining such a restriction.

3.6. Zoning

Some fisheries (eg Abalone and the River Murray fishery) have their areas divided into zones which allow different management practices to be used in the zones (eg the Northern Zone Rock Lobster Fishery is primarily input managed whereas the Southern Zone is primarily output managed).

Costs

- Zoning may sacrifice some operational efficiencies (eg if a fisher can only fish in a particular zone he may need to travel long distances to find stock within that zone or fish much harder to gain stock within that zone).
- If the fish species is migratory, there may be significant spillovers from one zone to another.

Benefits

- Zoning allows for localised biological or ecological differences to be taken into account.
- Without zones, fishers would all concentrate where the stock was abundant which would lead to hastened stock depletion such has happened in the Tasmanian green lip abalone fishery.
- Zoning allows for appropriate quotas to be allocated which enables the whole of the fish resource to be harvested in a sustainable manner.
- Zoning allows for greater certainty of property rights to be achieved, eg. in the river fishery there is exclusive fishing in respect of various reaches of the river. This creates ownership and stewardship of that fishery and will encourage fishers to look after the area.

On the basis of responses to the Issues Paper, organisations representing commercial fishers favour retention of the restriction, provided that zoning is based on biological as well as management considerations. Nevertheless, it was the view of two marine scale fishers that there are no benefits to commercial fishers from zoning.

The Review Panel considers that the costs that derive from zoning only limit efficient practices due to the one person / one licence restriction rather than the fact that there are actual zones. If the one person / one licence restriction is removed, zoning rules can serve their useful purpose in managing fish resources with attention to local conditions while still allowing efficient allocation of catching rights.

3.7. Licensing of Commercial Fishers

Section 34(1) of the Act provides that any person who engages (or appoints an agent to engage) in a fishing activity of a class that constitutes a fishery must hold a licence. This is a barrier to entry into the market. However, the Review Panel regards the use of licences or some similar method to restrict access as essential to the sustainability and efficient use of the fishery.

All licences are issued for a period of twelve months, commencing on 1 July in any year. Renewals must be made by application prior to the expiry of the licence and in a prescribed form.

Costs

- Short-term licences may deter potential new entrants who see lack of security as an impediment to security of return on investment.
- They may create an incentive for shortsighted fishing practices - if fishers lack confidence in their future rights, they may put short term profits ahead of long term sustainability.
- They offer limited certainty to incumbents to efficiently plan their businesses long term.
- Administrative costs are increased.

Benefits

- Short duration licences allow for an assessment to be made each year as to whether the fishery is able to sustain the output/effort level in the previous year and to make appropriate adjustments to licence conditions if not. This gives Government the ability to respond rapidly to significant changes in the fishery environment.

Of eleven responses to the Issues Paper that addressed this issue, only one favours the status quo. Another nine support tenure ranging from 3 to 5 years to a licence in perpetuity. The rationale is that longer tenure will help reduce administrative costs, allow for more efficient planning and provide a more stable environment that will encourage investment.

In reality, the administrative costs of licence renewal are probably small, but this does not preclude reducing them if it is possible to do so without detriment to management.

On balance, the Review Panel considers the current annual renewal arrangements do not achieve benefits that outweigh their costs. One alternative may be to offer licences lasting a longer period of time but with variable conditions attached to each licence that can be changed at any time to address the issue of fishery management.

One respondent to the Issues Paper, an industry organisation, made the case for compensation when fishing rights are expropriated for reasons of sustainability.

3.8. Barriers to Entry and Restrictions on Transfers of Fishing Rights

There is a range of mechanisms in place that restrict the ability of owners of fishing rights to transfer those rights to other parties. Some of these restrict transfers to parties outside the fishery and constitute a barrier to entry. Other restrictions affect transfers within the group of licensed fishers. Because the consequences of these sorts of restrictions are essentially similar, they are considered together.

3.8.1. One Person / One Licence

In South Australia licence holders may own a licence only in respect of a single fishery. Among the Australian fishery jurisdictions, this restriction is unique to South Australia. The Review Panel considers this to be a serious restriction on competition.

Costs

This restriction limits economies of scale and scope (and hence economic efficiency) as:

- It limits the efficiency of fishers in that they are only able to target one fishery or zone despite knowledge, expertise and capital resources that might make them an efficient operator in another fishery. That expertise is also potentially spread too thinly, particularly in fisheries that are zoned, and participants cannot invest efficiently in the fishery. For example, if no restrictions existed one boat could be used across two fisheries or zones, rather than requiring a boat in each fishery or zone.
- It increases the impact of seasonal restrictions or naturally short seasons, as participants are unable to diversify into other fisheries.
- Resources are invested in artificial schemes (eg boat leasing arrangements) to avoid the effects of this restriction and compliance costs are increased.
- It has a negative impact on the tradability of licences. For instance, if a fisher wants to move into a new fishery he must divest himself of any existing licence.

Benefits

- The only apparent benefit might be in pursuit of the equitable distribution objective, as the restriction tends to maximise the number of different participants in the State's fisheries. In this regard a fishing licence is considered to be a privilege bestowed on private persons. By spreading the

private benefits as far as possible it is envisaged that employment, especially in regional areas, is promoted.

The regulations that require fishing to be carried out by fragmented economic units are unusual. Restrictions like this are generally not imposed in other sectors of the economy. If Governments have objectives to boost employment in particular regional areas, then this can be addressed by more direct economic development policies, in preference to policies that impose an inefficient and potentially uncompetitive structure on the industry.

The view of the Review Panel is that the costs of the restriction outweigh the benefits. Firstly, it is not clear that an equity objective of this type actually exists – all members of the community make choices about the activities that they engage in and it is not clear that Government would have a policy to encourage participation in fishing at the expense of other activities. Secondly, the restriction tends to fall short on the objective of optimising economic efficiency, with a potentially detrimental effect on the competitiveness and economic viability of the State's fisheries.

Generally, organisations representing commercial fishers view the restriction as anti-competitive and, in noting that the restriction is being circumvented, argue that it should be removed. Nevertheless, a small number of marine scale fishers are keen to see the restriction retained.

The Panel expects that the removal of this restriction, along with other market mechanisms to reduce effort in fisheries, will result in entrepreneurial fishers achieving economies of scale in fishing operations that will reduce costs of fishing for the same revenue levels fixed by allowable catches. Although some existing fishers might choose to sell out, there is no compulsion to do so.

3.8.2. Licence Ownership Entities

Some fisheries allow licences to be held by corporate bodies (eg. proprietary companies) and some require that only individuals may hold licences. This is considered a serious restriction on competition.

Costs

- These arrangements may prevent the entry of organisations that are more efficient in their fishing activities (eg they probably prohibit the achievement of economies of scale).
- These restrictions do not allow fishers to structure their affairs for legitimate tax effectiveness, liability, financing and other reasons.

Benefits

- The natural person requirements have the effect of fragmenting fishery participants and, at the cost of losses in production efficiency and incomes, may boost employment in the fishery.

Seven respondents to the Issues Paper, all but one associated with the marine scale fishery, favour retention of the restriction. Their position is based on a concern that loss of the restriction would help bring about the demise of the owner / operator restriction in the marine scale fishery, which marine scale fishers strongly support, and a perception that "companies can't be trusted".

Another seven respondents, all but one being industry organisations (as distinct from individual fishers), submitted that restricting ownership to individuals impacts on the ability of the industry to apply resources in an efficient and profit maximising manner.

However, there is limited support for unfettered access to licences by corporate bodies. The general view is that any changes to ownership arrangements must include aggregation limits in order to reduce potential exposure of fisheries to market monopoly and inappropriate management.

It was the view of one respondent that if a person has skill, knowledge and experience in relation to a particular species of fish, then they should be able to hold a licence, regardless of whether they are local, interstate or foreign fishers.

It was the view of another respondent that if changes to ownership arrangements occur, licence holders should be offered a once-off opportunity to rearrange their business structure without incurring stamp duty, capital gains and GST imposts, in recognition of the artificial costs that have been incurred by the industry through the current restrictions on who can own licences and how many they can own.

It is the view of the Review Panel that the restriction should be removed, as the benefits do not outweigh the costs. This matter will be further considered during a general review of the Fisheries Act that will follow the NCP review.

3.8.3. Foreign Ownership

Section 46(b)(iva)(A) prevents a foreign person from having a financial interest in a fishery. This is considered a serious restriction on competition.

Costs

- These arrangements may prevent the entry of organisations that are more efficient in their fishing activities (eg they probably prohibit the achievement of

economies of scale).
- They may restrict the entry of efficient fishers into the market.

Benefits

- It protects profits being repatriated rather than enjoyed by the local economy.

The opinion of respondents to the Issues Paper ranges from foreign ownership being allowed, subject to a range of conditions including limits on maximum holdings in individual fisheries, to a complete prohibition on foreign ownership. The opposition is attributable to experience overseas where foreign ownership has seen fisheries exploited to the point of collapse in the pursuit of profits and to concern about the impact on local communities of profits being repatriated to the foreign owners.

At face value, the arguments regarding retention of profits have appeal. However, they are probably exaggerated. When a community member sells a fishing right to an overseas party, they receive a payment in return and that payment has an income stream associated with it. The sale of the fishing right amounts to the swapping of the income stream of the fishing right with another income stream, presumably of similar value. Net impacts on repatriated profits can really only be expected when some extra value is unlocked in the transaction. However, one would expect that potential gains like this would be split between the purchaser and the vendor at time of sale.

While foreign investment is controlled by the Foreign Investment Review Board, which makes judgements about whether or not a foreign investment is in the nation's interest, there is a minimum threshold below which the Board does not get involved. That threshold is currently well in excess of the cost of licences for all State fisheries subject to the *Fisheries Act 1982*.

It is the view of the Review Panel that foreign ownership should be allowed, subject to any conditions that are needed to protect the State's public interest. This matter will be further considered during a general review of the Fisheries Act that will follow the NCP review.

3.8.4. Finite Number of Licences (Limited Entry)

It is possible to set a catch or effort limit for a fishery and to achieve that limit with a large number of licences. However, licence numbers are restricted in some fisheries. The restriction in licence numbers is not necessarily intrinsic to the limitations on catch/effort. For instance, in an output controlled fishery the government could issue a new licence without any catch allowance, and require the licensee to secure a catch entitlement on the market. In an input controlled fishery the government could also issue a licence without any gear entitlement and require the licensee to purchase a gear entitlement on the market.

A limit on the number of licences issued for fisheries constitutes a barrier to entry. In particular, it prevents the spread of the catch from the fishery over a larger number of fishers. In principle, the fishery manager could determine a TAC and issue as many licences as were wanted. With a large number of licences, most or all licences would have a very small catch.

The fishing right in this instance is the licence and the associated terms of access to the fishery. The restriction is a prohibition on division of fishing rights into smaller components.

There is an economic impediment to very small licence holdings to the extent that compliance costs are related to numbers of licences (rather than amount of catch). So long as licence fees are genuinely reflective of compliance costs (for instance, including fixed and variable cost components) then they will create incentives for efficient numbers of licences.

The impact of this restriction is considered to be intermediate.

Costs

- The primary cost of this restriction is that it may prevent the emergence of smaller scale fishing operations that are economically efficient.

Benefits

- Regulatory costs are reduced by having fewer fishers to monitor.
- If catch/effort controls are ineffective, licence limitations may fulfil a role as a surrogate limitation on catch/effort.

The Review Panel's view is that the benefits in terms of reduced compliance costs probably outweigh any costs in terms of lost opportunities for small-scale commercial fishing activity. It is not aware of any instance where there is likely to be an economic incentive to spread the permitted catch across a larger number of licences, especially once the compliance costs of small licences are factored in. In fact, the transferability (or lack thereof) attached to some licences has a much greater competition impact than the limited number of licences on issue.

Four fishers commented on this issue and all are in favour of retaining the restriction. The absence of comment by any of the industry organisations suggests that the Review Panel's view, that the benefits in terms of reduced compliance costs probably outweigh any costs in terms of lost opportunities for small scale fishing activity, is widely shared by industry.

Output Controls

In all fisheries that are subject to some catch/effort control, there is some allocation of fishing rights among individuals. In the case of a fishery with output quotas, this will be typically be expressed as an allowable catch. In 'Olympic' and input controlled fisheries, the fishing rights are expressed in terms of rights to use certain gear under specified circumstances. Some provisions of fisheries legislation impede fishing right owners from transferring their rights.

Output controls in the form of quotas and TACs are used in a number of South Australian fisheries eg abalone, SZ rock lobster, giant crab, blue crab and pilchards – see table on next page for details of quota related restrictions. A TAC is set and participants in the fishery are entitled to a share via ITQs.

Quotas themselves have much to commend them when it is necessary to restrict the amount of activity in a fishery for sustainability reasons. However, there are some restrictions on the transfer of quota that, in the Review Panel's view, constitute intermediate restrictions to competition.

Fishery	Description of Quota Related Restrictions
Abalone	Quota set for each zone and transferable only to other licence holders in same zone. Quota units only temporarily transferable within a licence period. No minimum or maximum quota holding on transfer.
SZ Rock Lobster	Quota units are effectively the same as pot entitlement units. Units transferable only to other licence holders in the fishery. Quota units are only temporarily transferable within licence period, and may be independent of pot transfer. The minimum pot entitlement on transfer is 40 and the maximum is 100, although licence conditions prevent the use of more than 80 pots at any one time.
Blue Crab	Fishers must hold pot or net entitlements as well as quota units. Quota units are not separately transferable however pot and net entitlements are permanently transferable, and quota follows the pot or net entitlement. A minimum pot entitlement of 50 pots must be maintained with respect to pot transfers.
Pilchard	Quota is issued to a number of licence holders within the Marine Scale Fishery who are permitted to use pilchard nets. Each fisher is allocated the same number of quota units, which are tradeable only within a licence period. There is no maximum or minimum amount of quota units that must be held as a result of a temporary transfer.

Costs

- The maximum and minimum holdings may limit the ability to maximise efficiency in a fishery.
- Prohibitions on quota transfers impose extra transaction costs.

Benefits

- In some fisheries - particularly marine scale - transfer limitations may serve a purpose in ensuring that latent effort remains latent, which is important in an over exploited fishery.
- Maximum sizes might be desirable in some instances to preserve a competitive market structure.
- There may be compliance cost benefits in requiring some minimum sizes for fishery rights.

Where a fishery suffers from significant latent effort, the Review Panel supports restrictions on transfers until such time as latent effort can be removed.

In respect of requirements that transfers of rights be temporary, the Review Panel is unable to identify benefits and consequently it takes the view that costs exceed benefits and permanent transfers should generally be allowed.

In respect of maximum holdings of fishery rights, the Review Panel believes that the market power arguments that might justify such a restriction are unlikely to be relevant in respect of most South Australian fisheries. Even if such a threat did exist, it could probably be addressed with much less restrictive arrangements - for instance requirements that no single fisher (or related parties) exceed a specified proportion of the fishery (for instance 25 per cent).

In some instances, there will be a fixed element to compliance costs which tends to rule against very small holdings of a fishing right. However, this does not necessarily require the setting of a minimum holding. Instead, a fixed fee element could be used to deter small holdings. This would leave open the possibility that where small holdings have large economic advantages it would still be possible to have them. However, the Review Panel is not aware of any fishery where this is a material limitation.

4. RESTRICTIONS ON INDIVIDUAL FISHERIES

4.1. Generally

Set out below are the main restrictions that apply to each of the commercial fisheries.

Restriction	Giant Crab and Misc	Marine Scalefish Fishery	Prawn Fishery	Rock Lobster Fishery (SZ)	Rock Lobster Fishery (NZ)	River Fishery & Lakes Coorong	Abalone Fishery	Blue Crab Fishery	Pilchard Fishery
Limited entry Licence	4	4	4	4	4	4	4	4	4
Transferable		4T	4	4	4	4	4	4	
Quota management	4			4			4	4	4
Tradeable	4#			4			4#	4	4#
Boat limitations (size)			4		4				
Gear restrictions	4	4	4	4	4	4		4	4
Area restrictions (not including reserves and zoning)	4		4			4		4	
Zones	4		4	4	4		4	4	
Seasonal restrictions	4		4	4	4	4		4	
Personnel Restrictions	4	4							

T currently under an amalgamation scheme
traded quota reverts back to the original holder at completion of the year

Fisheries are discussed in this section only if it is believed that there are issues unique to the fishery in question.

4.2. Prawn Fisheries

The key restrictions in the Gulf St Vincent, Spencer Gulf and West Coast prawn fisheries are input controls (ie restrictions on boat numbers, boat sizes, net lengths and configurations and seasons).

Costs

- There are few incentives to compete, as an efficient prawn fisher cannot currently transfer gear or quota from an inefficient fisher or buy a second licence.

Benefits

- Input controls are well suited to management of prawn fisheries due to their short life cycle and high recruitment variability.

It is the view of the Review Panel that these fisheries need some form of flexibility of catch or inputs (eg days fished) to allow market forces to provide incentives for maximising efficiency of fishing operations.

4.3. Rock Lobster Fisheries

4.3.1. Southern Zone Winter Closure

The Southern Zone Rock Lobster Fishery season currently runs from 0600 hours on 1 October to 1800 hours on 30 April. The Review Panel considers the impact on competition to be intermediate.

Costs

- The seasonal closure results in the supply of lobster to processors and markets being artificially restricted, which distorts competition in the market. Whether or not this is of significant impact depends on the availability of substitutable produce during the closed season. Although there are other species of fresh fish and frozen fish available, the unique nature of the rock lobster suggests that it is not perfectly substitutable.
- There is an opportunity cost of under-utilisation of capital equipment (ie boats during the closed season) even though such fishers' licences permit the targeting of marine scalefish in the closed season.

Benefits

- Restricting the season makes it easier and cheaper to monitor and enforce the quota system.
- Winter fishing can be costly due to the risks of bad weather.

The Review Panel is not aware of any sustainability or biological reason why there is a closed season and, in the Issues Paper, suggested that the winter closure in the Southern Zone be revoked.

Among commercial fishers who responded to the Issues Paper, one supports a 12-month season, on the basis that the closure denies fishers access to price spikes in the market and, therefore, impacts on return on investment. Generally, the status quo is favoured, although there is some support for an eight-month season that sees the fishery closed while female rock lobsters are spawning.

One respondent considers zoning important, on the basis that it allows Southern Zone fishers to protect their substantial investment in developing the fishery.

The prevailing view among commercial fishers is that control of recreational access to the resource should be at least as stringent as commercial access and that a more effective way of monitoring the recreational catch is needed.

4.3.2. Northern Zone Closed Season

Currently, the Northern Zone Rock Lobster Fishery is managed by input controls that restrict the number of pots used by each licence holder and the number of days fished each season. In the Northern Zone there is a similar winter closure as well as a number of boat specific time closures during the open season.

Costs

- Similar costs resulting from Southern Zone above apply in the Northern Zone. This may lead to increased compliance costs.

Benefits

- The season and time closures are important tools in management as it is an input controlled fishery. If removed, the Review Panel is of the view that there would need to be compensating input restrictions of other types to maintain sustainability.
- It is a mechanism that achieves reduced effort without having to rely on a TAC, for which there is insufficient knowledge of the fishery to accurately set.

The Review Panel considers that although the closures restricts supply of lobster from this fishery during winter, which means that boats are not at full productive capacity, this input control is appropriate for this fishery.

4.4. Abalone Fisheries

The abalone fishery is managed in three separate geographic zones, each zone having a restricted number of licensed divers and an independently assigned TAC each calendar year. Each licence is allocated an individual quota that is an equal proportion of the TAC for blacklip and greenlip abalone for that zone of the fishery.

Quota is transferable between licence holders within each zone in a fishing period, but currently may not be permanently transferred or transferred between zones. The impact of this transfer restriction is considered to be “intermediate”.

Costs

- The non-permanent transferability of quota may limit the ability of fishers to take advantage of capital growth.
- It limits market driven restructuring of the fishery.
- Setting up the same transaction year after year imposes unnecessary administrative costs.

Benefits

- No significant benefits identified.

It was the view of three abalone fishers who responded to the Issues Paper that quota should be permanently transferable. Two other abalone fishers offered opinion on how quota is managed.

The Review Panel is not convinced that the benefits of precluding permanent transfer exceed the costs. The setting of the TAC should allow sufficient scope for management to regulate effort in the fishery. Therefore, the Review Panel considers that the non-permanent transferability of quota and the restriction on transfer between zones should be removed.

4.5. Blue Crab Fishery

There are a number of restrictions in the blue crab fishery which have intermediate impacts on competition. These include prohibiting net fishers from using pots, some licence holders can only fish in one zone, a 50-pot minimum holding and closed seasons.

Costs

- The closed season does not allow fishers to correlate fishing effort with price moves for product and therefore reduces their return on investment.
- The minimum pot holding may preclude economically profitable smaller scale pot redeployments.

Benefits

- Compliance costs are reduced through the closed season and minimum pot holding.

In the Issues Paper, the Review Panel suggested that these provisions impose barriers on achieving economic efficiency in the fishery and, unless they are associated with sustainability and equity issues, they should be removed.

In response to the Issues Paper, blue crab fishers registered concern that their licence fees are excessive compared to other fisheries and other States. One respondent took offence to inconsistent data presented in the Issues Paper. Specifically, if the average value of a pot licence is reported, then so should the average pot licence fee, not the average licence fee, which includes fees paid by marine scale fishers.

Blue crab pot fishers argue that continued access to the blue crab resource by marine scale fishers is a major impediment to its future development. It is their view that marine scale fishers who want to catch blue crabs should be required to purchase a pot licence, assuming the one person / one licence rule is removed.

According to blue crab fishers, the closed period over Christmas is quality based and was instigated by pot fishers in the 1980's because of the large amount of "soft" crabs in the market over Christmas at the time. On the other hand, the one marine scale fisher who commented on the blue crab fishery submitted that closed seasons are not associated with sustainability and should be removed.

The marine scale fisher who commented on the blue crab fishery is concerned at the cost of acquiring blue crab quota, the minimum pot holding restriction, the additional cost of having to retain his marine scale licence and the practice of requiring up-front payments prior to allowing blue crab quota transfers. All these, he argues, impact on business viability.

4.6. Miscellaneous Fishery

Miscellaneous licences are issued for developing fisheries. They are non-transferable due to the uncertainty attached to this type of fishery. This is considered an intermediate to serious restriction on competition.

Costs

- The non-transferability of licences restricts the ability of participants to exit the market.

Benefits

- The non-transferability of licences allows some assessment of the resource before market forces are introduced.

It will often be the case that the exact nature of future fishing rights in a developmental fishery will be highly uncertain. However, that uncertainty in itself need not preclude transfer of licences. In general, the Review Panel does not believe any benefit exists to justify the non-transferability of these licences.

4.7. Comments on other Fisheries

Other fishers took advantage of the opportunity to respond to the Issues Paper and provided comment on the management of their fisheries.

4.7.1. Giant Crab

One giant crab fisher argued that there are too many people with access to the fishery and that limits and quota for the giant crab should be transferable in order to improve the viability of fishers.

4.7.2. Marine Scale

Cost recovery features prominently in responses to the Issues Paper by commercial marine scale fishers. They believe that their licence fee, as a % of GVP, is excessive compared to other fisheries which have a higher value. They also believe that the costs that are recovered have not been apportioned equitably between commercial fishers, recreational fishers and the broader community. It is a matter of concern to one commercial marine scale fisher that Charter Boats do not contribute to the cost of research, policy or compliance in the marine scale fishery.

Further, it is the view of commercial marine scale fishers that access to the marine scale fishery is more restricted for commercial fishers than for recreational fishers and that monitoring of OHSW practices of commercial fishers is more stringent than monitoring of recreational fishers.

Finally, according to commercial marine scale fishers, the cost of catch and effort reductions implicit in the amalgamation scheme for the transfer of licences in the marine scale fishery have been born entirely by commercial fishers. One fisher did acknowledge that the amalgamation scheme has been an effective tool for reducing effort, both active and latent, in the marine scale fishery.

4.7.3. Restricted Marine Scale

Restricted marine scale fishers who responded to the Issues Paper argued that removing the restrictions on their licences would have little impact on the marine scale fishery. Accordingly, it is their view that the restrictions should be removed.

5. RECREATIONAL FISHERS

There are a number of restrictions on recreational fishers in the Act such as:

- restrictions on fishing methods, designed to protect habitat and sustainability;
- restrictions on gear that can be used, including the use of “commercial” gear;
- prohibitions against selling fish, and
- restrictions on size and bag limits, and possession limits.

These are designed for open access fisheries, especially those where there is competition for the resource between the commercial and recreational fisheries (eg the marine scale fisheries in the Gulfs and rock lobster). For these fisheries, the aim of the restrictions is to ensure that the combined catch of both sectors does not exceed the TAC for the fishery. Therefore, the emphasis is on ensuring that recreational fishers act in a recreational manner and do not mimic the commercial sector eg type of gear that can be used and sale of fish.

In addition, the provisions for recreational fishers recognise that the type of compliance systems which may be effective for large volume commercial fishing are likely to be excessively costly for recreational fishers. By specifying recreational access rights in different ways, the recreational catch can be allowed for without the imposition of unworkable compliance arrangements.

An important issue that needs to be kept in mind is that there is not a functioning market in fishing rights between the recreational and commercial sectors. Consequently, the policy maker will need to make judgements about the merit of allocating fish resources to each sector. The values to place on recreational benefits are hard to quantify, but in substance are not less important than the values of commercial fishing rents.

When considering the benefits of recreational fishing, it is important to include factors such as first the enjoyment that recreational fishers gain from fishing as a result of the intrinsic challenge of angling, enjoyment of the natural environment, and enjoying the company of friends, and the potential for other impacts that might be considered desirable such as boosting regional tourism industries.

In the Review Panel’s view, recreational access regimes are not a restriction on competition. Rather, they are an administrative response to a market failure - the failure of markets in fishing rights to effectively transfer fishing rights between recreational and commercial fishers.

Where there is overlap between commercial and recreational fishers over shares in a resource in a certain area, the policy aim should be to ensure that the allocation of this resource is determined in a manner which is of greatest benefit to the State, taking into account economic, social and environmental factors.

Two distinct issues are apparent in responses to the Issues Paper.

Recreational fishers believe that controls on their access to some fisheries (eg the River Murray) are inequitable compared to the commercial sector and that the calculation of recreational catch limits is arbitrary. By comparison, commercial fishers would like to see catch limits for recreational fishers reduced to what can be consumed immediately.

Secondly, it is the view of a number of respondents that there should be a recreational licence in order to fund recreational fishing compliance services and to facilitate data collection on fishing pressure applied by recreational fishers.

6. MANAGEMENT OF FISHERIES

6.1. Persons Authorised

Section 25 limits those persons who may be appointed as fisheries officers to public service employees, officers under the Commonwealth Act and persons authorised under the law of another State or a Territory related to fishing to exercise powers or discharge duties relating to fishing.

This restriction constitutes a barrier to entry and is categorised as intermediate.

Costs

- Limit the availability of a pool of persons from which to draw, potentially increasing the cost of management services generally.

Benefits

- Potentially enhances the community perception that there is no improper influence by profit motives or vested interests within the fishing industry.

The Review Panel suggests this restriction be examined during the development of the new Fisheries Act.

6.2. Role of Prescribed Bodies

The Act confers on certain bodies special roles in relation to the management of fisheries.

For example:

- The Fisheries (Management Committees) Regulations 1995 prescribe that the Department of Primary Industries, the South Australian Fishing Industry Council (SAFIC) and the South Australian Recreational Fishing Advisory Council participate on every management committee established under the Regulations.
- Section 32 of the Act authorises the Minister to make payments out of the Fisheries Research and Development Fund for various purposes including to "a prescribed fishing industry body". The SAFIC is currently the only prescribed fishing industry body.
- Section 37 of the Act prescribes SAFIC as the sole body with respect to consultation by the Minister for the proposed imposition of certain fishing licence conditions.

These are considered to be intermediate restrictions on competition.

Costs

- It confers a monopoly status on certain bodies that prevents alternatives becoming peak representative bodies for stakeholders as the industry environment changes.
- It does not take into account the ability of these organisations to represent their sectors, or their effectiveness in doing so.

Benefits

- It ensures the participation of representatives from these two bodies on the management committees of the fisheries.

The Review Panel considers that it is inefficient to prescribe representative bodies in legislation when alternatives exist. Rather, the Minister should be able to form committees or take advice unfettered and, in the process, ensure that the interests of all stakeholders (eg recreational, commercial and environmental groups) are included.

Not unexpectedly, the industry organisation that is currently the prescribed body for commercial fishers favours retention of the status quo. Six other respondents, including two other fishery specific industry organisations, supported it, primarily on the basis that the current arrangements are efficient and effective, both for government and for industry.

However, retention of the status quo does not have universal support, with three respondents, all industry organisations, arguing that the Act should not confer special roles on certain bodies in the management of fisheries.

One respondent noted that there has been a proliferation of representative organisations recently. Another noted that the considerable administrative overlap between representative associations and Fishery Management Committees (FMCs) is leading to inefficiencies and conflicting approaches.

6.3. Fishery Management Committees

Three themes emerged in the comments on Fishery Management Committees (FMCs) in responses to the Issues Paper: relevance, structure and process.

With regard to relevance, one respondent, a commercial marine scale fisher, suggested that FMCs have become top heavy with administration and should be abolished, with the role undertaken by SAFIC. It was the view of another commercial marine scale fisher that fishers should not be compelled to fund FMCs given that PIRSA and the Minister can ignore the advice they receive from FMCs.

On the issue of structure, one respondent submitted that FMCs should include commercial, recreational, environmental and tourism members, as each sector impacts on the others, while another suggested that sector members should be elected by the respective sectors.

Several issues are grouped under process. Firstly, unverified data should not be used when making fisheries management decisions. Secondly, FMCs should consult with all sectors at all times. Thirdly, each year, PIRSA should provide each FMC with an income and expenditure statement and a balance sheet for the fees recovered from industry for the provision of fishery management services.

It is clear to the Review Panel that some respondents do not fully understand the role and responsibilities of FMCs.

The Review Committee sees merit in the suggestion of one respondent that there should be a Fisheries Ombudsman to whom complaints about decisions by Government could be referred.

6.4. Provision of Industry Services

According to one industry organisation, the notion that effective management of fish resources, in an operational sense, is the sole domain of government is flawed.

It is the strongly held view of six respondents, including five industry organisations, that fisheries management services should be open to competitive tendering and subject to external audit and review. According to a seventh, there should be independent monitoring of the effectiveness of the compliance and research services provided by PIRSA, while an eighth argued that resource data collected by SARDI as a requirement of commercial fishing licences should be available, at least in aggregated form, for external scrutiny.

7. AQUATIC RESERVES AND PARKS

Section 47 provides for the declaration of any land and water or waters to be an aquatic reserve. These have been declared to protect any rare species or endangered habitat or to prohibit certain activities in the area for the benefit of the environment and for the community. Some of the reserves protect major breeding colonies, fish nursery areas or areas which allow teaching or research to occur.

Under Section 48 the Governor may, by proclamation, constitute any land and waters as a marine park. This can be done where the Governor considers the area to be of national significance by reason of the aquatic flora or fauna of the waters or the aquatic habitat. Currently there is only one marine park in South Australia - the Great Australian Bight Marine National Park. Carved out from this is the Great Australian Bight Marine Park Whale Sanctuary which has been declared under the *National Parks and Wildlife Act 1972.*

The act of constituting a place as a marine park puts it under the control and administration of the Minister who is then required to administer it in accordance with a management plan. This plan of management is usually restrictive in its nature.

The declaration of aquatic reserves or parks does not in itself constitute a restriction to competition. Rather it is an administrative response to a market failure. Specifically, the market is unable to allocate fish resources across the competing interests of, on one hand, commercial and recreational fishers who wish to catch fish, and community members who wish to see sensitive ecologies preserved intact. Markets cannot effectively reconcile these competing interests. The decision about when and where to declare parks requires informed administrative judgement. Those judgements would take into account factors like:

Costs

- Usually limits commercial fishing activities in the area.
- Concentrates fishing effort into smaller areas.

Benefits

- Ensures that certain waters and their aquatic species that live in these waters are allowed to exist relatively undisturbed.
- Protects the area of national or environmental significance for future generations.

The consensus view among those who responded to the Issues Paper is that there should be logical and scientific reasons to establish aquatic reserves.

Where aquatic reserves are established, both recreational and commercial fishers should be subject to the same conditions relating to those reserves.

The Review Panel considers that the capacity to establish aquatic reserves and marine parks is not anti-competitive as such. It is still desirable that Government considers the benefits and costs of such declarations on a case by case basis. The Review Panel suggests that consideration be given to the administration of marine parks by one Government agency.

8. EXOTIC FISH

Section 49 of the *Fisheries Act 1982*, by the creation of an offence, prohibits the importation (or causing such importation) of exotic fish into the State or their sale, purchase, delivery, possession or control, without a permit. The restriction can only be implemented where a risk exists or may exist.

The impact of this restriction is to exclude certain fish from the relevant market and is likely to be trivial to intermediate, dependent upon how much of the relevant market is constituted by the restricted species. The ability to substitute other exotic fish for aquarium fish operators is usually quite high.

Costs

- Limits the range of exotic fish available to fanciers.

Benefits

- Reduces risks to the State's indigenous fish and promotes their sustainability.

With regard to the Issues Paper, one respondent argued that more must be done to protect our waters from exotic fish and diseases if the community is to benefit from the industry's clean and green image. It was the view of another respondent that the release of any exotic fish, including trout, into any waterway in SA should be prohibited. However, people should be able to restock waterways with indigenous species.

Wild fish environments can be fragile (consider for instance the impact of carp on the River Murray). While exotic fish restrictions may involve some sacrifice of enjoyment for fish hobbyists, the Review Panel believes this sacrifice to be small relative to the reduction in risks associated with it. Bearing in mind the way these powers are exercised in South Australia, the Review Panel considers the benefits of these restrictions outweigh the associated costs.

9. OTHER ISSUES

The invitation to comment on the Issues Paper provided respondents with the opportunity to comment in other issues.

9.1 Sanctions

Two respondents commented that the sanctions provided for in the Act should be strengthened, with jail terms for repeat offenders.

9.2 Cost Recovery

The prevailing view throughout the responses is that licence fees for commercial fishers are too high because the cost of fisheries management services is not shared equitably between commercial fishers, recreational fishers and the community, all of whom are beneficiaries.

9.3 Security of Access to the Resource

It is the view of two respondents, both industry organisations, that the lack of security of access to the resource is the single most important impediment to sustainability and development of the seafood industry. They argue that the issue could be resolved by provision of licences in perpetuity, the right to transfer licences freely and a business basis for changes in access. Transferable licences seem to have widespread support among commercial fishers.

9.4 Sharing Access to the Resource

There are conflicting views among commercial fishers on this issue. A market style allocation mechanism to share a fishery's resources is not supported by one respondent, a peak industry organisation, because "the recreational sector has an intrinsic share of the resource, not a tradeable access right". Conversely, another respondent, an industry specific organisation, supports commercial transfer of access shares between the commercial and recreational sectors as a general principle, as is now the case with rock lobster. Neither supports arbitrary re-allocation of the resource without considering the economic and biological implications.

9.5 Aquaculture

It is a matter of concern to two respondents, one a peak organisation and one a fishery specific organisation, that the aquaculture sector enjoys a competitive advantage by virtue of its greater access security compared to the wild catch sector. It is their view that as long as aquaculture relies on wild capture brood

stock and natural food sources, it should be covered by the same legislation as wild capture, because the two are competitors for the same resource.

9.6 General

There were several concerns about the Issues Paper and the Review process included in responses to the Issue Paper. For example:

- The Issues Paper should have been sent to every commercial fishery licence holder.
- ESD, economic and regional development and interests of consumers were not given sufficient weight in the Issues Paper.
- The Review Panel lacked the expertise needed to make an objective and informed assessment.
- The underlying premises and assumptions in the Issues Paper are based on speculation, opinion and judgement.

While it is reasonable to expect that some respondents would have reservations about the nature and extent of the Review and the way it has been conducted, the criticism has been minor compared to the outrage that has accompanied other reviews and community concerns generally about the NCP process.

PIRSA has initiated a project to develop new legislation to replace the *Fisheries Act 1982*. The aim of the project is to develop an Act that facilitates ecologically sustainable development of the State's living marine and freshwater resources without burdening the community or fishers with unjustified costs or unjustified restrictions on their access to those resources.

Successful development of the proposed new legislation will be dependent on early engagement of stakeholders, particularly the community and fishers, in the policy development process. A broadly representative Project Steering Committee is being established.

Five Reference Groups will also be established: Community and Environment, Indigenous, Commercial, Recreational and Government. These Reference Groups will function as important forums for sectoral perspectives, with members drawing on their personal and practical experience to provide input relevant to the project. The Reference Groups will be asked to provide stakeholder input to the development of policy options for the regulation and management of South Australia's fisheries.

It is envisaged that this inclusive process to develop new legislation to replace the Fisheries Act will help to allay concerns such as those expressed about the NCP review.

10. CONCLUSION

10.1.Summary

Every review of fisheries legislation that has been conducted in Australia in recent years has concluded that unimpeded competition between fishers invariably leads to overexploitation of the resource and, ultimately, the collapse of the fish population. Overseas evidence supporting this conclusion is compelling. This NCP Review is no different.

It is the view of the Review Panel that legislation that limits effort and catch for fisheries in this State is necessary. This view seems to be widely supported by the community, including commercial and recreational fishers.

The management arrangements that the Fisheries Act 1992 provides for limits on the extraction arrangements from a fishery, allocation of the fish resource across competing uses and as wide as possible a range of choices about how to catch fish. Each fishery is managed according to its particular circumstances, with a mix of access, output and input controls, as appropriate. This ensures the taking of no more, and usually less, than the maximum biological yield at the lowest cost.

While, generally, the restrictions that have been examined during this NCP Review are justified on the basis that the benefits to the community outweigh the costs to the community, several restrictions warrant specific comment.

There is no reason why the One Person / One Licence restriction should be retained and the Review Panel recommends that the restriction be removed.

The Review Panel also recommends that the recreational fishing licence issue be revisited by government as a means of ensuring that recreational fishers contribute equitably to the cost of fisheries management in South Australia.

It is the view of the Review Panel that the Owner / Operator restriction should be removed. However, many commercial marine scale fishers hold strongly to the view that the restriction must be retained, on the basis that it is an important tool in the ecologically sustainable development of the fishery.

Conversely, some other commercial fishers favour removal of the restriction so they can better utilise their fishing assets. In doing so they will increase the return on the funds they have invested in those assets and facilitate efficiency gains in the industry. They argue that potential effort increases in the marine scale fishery can be managed through appropriate catch and effort management mechanisms, as is the case in other fisheries.

The Review Panel understands that there has been a recent review of the marine scale fishery and that a new management strategy is being developed. It is the view of the Review Panel that the Owner / Operator restriction in the marine scale fishery should be further assessed in relation to the benefits and costs to the industry of maintaining such a restriction.

The case made by commercial fishers who responded to the Issues Paper for stronger property rights should be explored during the development of legislation to replace the *Fisheries Act 1982*. The Review Panel sees no need to act on this issue in isolation. Issues like licence tenure, corporate and foreign ownership of commercial fishing licences, permanent transfer of quota and the provision of industry services should be further considered during the development of new legislation to replace the *Fisheries Act 1982*.

Restrictions that impact on specific fisheries that the Review Panel has identified should be referred to the appropriate Fisheries Management Committee for further consideration.

10.2.Recommendations

1. That the Owner / Operator restriction in the marine scale fishery be further assessed in relation to the benefits and costs to the industry of maintaining such a restriction.

2. That the One Person / One Licence restriction be removed.

3. That the recreational fishing licence issue be revisited by Government as a means of ensuring that recreational fishers contribute equitably to the cost of fisheries management in South Australia.

4. That those management restrictions that impact on specific fisheries be referred to the appropriate Fisheries Management Committee for further consideration.

5. That issues such as the case for stronger property rights, licence tenure, corporate and foreign ownership of commercial fishing licences, permanent transfer of quota and the provision of industry services be further considered during the development of new legislation to replace the *Fisheries Act 1982*.

Appendix 1: Terms of Reference

Introduction

The Competition Principles Agreement (CPA), ratified by the Council of Australian Governments in April 1995, requires Governments to "… review, and where appropriate, reform …all existing legislation that restricts competition by the year 2000."

The South Australian Government published its Timetable for the Review of Legislative Restrictions on Competition in June 1996. The timetable lists all legislation that potentially restricts competition and which will be subject to review. The Fisheries Act is scheduled for review by the end of 2000.

A review of this Act has been commissioned by the Minister for Primary Industries and Resources and will be undertaken by a Review Panel. The review is to observe the requirements of Clause 5, "Legislation Review", of the Competition Principles Agreement and make recommendations to the Minister accordingly. In conducting its task, the Review should consult with stakeholders and other interested parties.

Review Panel

The review of the *Fisheries Act 1982* will be undertaken by a panel consisting of Alexandra Maddern, Jim Hancock, John Cornish, Philip Taylor, Will Zacharin, Brian Hemming and David Hopton.

Guiding Principle

The guiding principle of the Review, under the Competition Principles Agreement, is that "legislation (including Acts, enactments, ordinances or regulations) should not restrict competition unless it can be demonstrated that:

a) the benefits of the restriction to the community as a whole outweigh the costs; and
b) the objectives of the legislation can only be achieved by restricting competition."

Pursuant to clause 1(3) of the CPA, in assessing the benefits of regulation regard shall be had, where relevant, to:

- government legislation and policies relating to ecologically sustainable development;
- social welfare and equity considerations, including community service obligations;
- government legislation and policies relating to matters such as occupational

health and safety, industrial relations and access and equity;
- economic and regional development, including employment and investment growth;
- the interests of consumers generally or a class of consumers;
- the competitiveness of Australian business; and
- the efficient allocation of resources.

Compliance costs and the paperwork burden on small business should be reduced where feasible.

Issues to be addressed

In undertaking this review, the Review Panel is required to:

1. Clarify the objectives of the Acts under review, identify the nature and magnitude of the social, environmental or economic issues that the Acts seek to address, and provide an assessment of the importance of these objectives to the community.

2. Identify whether restrictions to competition are contained in the Acts and the regulations made under the Acts, and in doing so:
   - describe the theoretical nature of each restriction;
   - identify the markets upon which each restriction impacts;
   - provide an initial categorisation of each restriction (ie trivial, intermediate or serious)

3. Analyse and describe the likely effects of the restrictions on competition in the relevant markets, and on the economy generally by:
   - assessing the practical effects of each restriction on the market, in terms of both benefits and costs;
   - assigning a weighting to the effect of each restriction in the market; and
   - assessing the relative importance of each restriction in a particular market to the economy as a whole.

4. Assess and balance the costs and benefits of the restriction.

5. Where a restriction is justifiable on the basis of public benefit, consider whether there are practical alternative means for achieving the objectives of the Acts, including non-legislative approaches.

6. Consider whether any licensing, reporting, or other administrative procedures, are unnecessary or impose an unwarranted burden on any person.

Consultation

The Review Panel will prepare an Issues Paper for comment by stakeholders and other interested parties. The Review will summarise the views raised in the consultation stage, and will consider them in forming its recommendations.

Reporting

The Review Panel will submit a report to the Minister for Primary Industries and Resources detailing:

- the Terms of Reference for the review;
- the persons and groups consulted during the review, with a summary of the views put forward by them;
- the analysis of the Fisheries Act in accordance with these Terms of Reference; and
- the recommendations of the Review Panel including preferred options for regulation.

Special conditions of the Review

The review will not examine NCP issues related to those parts of the Act and Regulations that pertain to aquaculture as these parts will be deleted from the Act when a new Aquaculture Act is promulgated which is anticipated to occur in the latter half of 2000.

Appendix 2: Summary of Economic Performance of South Australian Fisheries Between 1997/98 And 1999/00.

FISHERY	ECONOMIC RENT 1997/98	ECONOMIC RENT 1998/99	ECONOMIC RENT 1999/00
Abalone	$ 13.506M	$ 14.342M	$ 18.081M
Spencer Gulf & West Coast Prawn	$ 5.398M	$ 8.448M	$ 8.014M*
Gulf St Vincent Prawn	$ 0.829M	$ 1.657M	$ 3.038M*
Southern Zone Rock Lobster	$ 8.353M	$ 7.804M	$ 11.157M.
Northern Zone Rock Lobster	$ 3.359M	$ 2.948M	$ 2.912M
Blue Crab	$ 0.141M	$ 0.180M	$ 13,000*
Marine Scale	- $ 9.667M	- $ 7.684M	N/A
River, Lakes & Coorong, Miscellaneous	Not measured	Not measured	not measured
TOTAL	$ 21.919M	$ 27.695M	N/A

*preliminary figure
Source: Econsearch Economic Indicators Reports

Appendix 3: Summary Of Licence Fees And Value Of South Australian Fishing Licences In 1998/99.

Fishery	Average Licence Fee	Fee as % of Fishery Gross value of production	Approximate Average Market Value Of Licence
Abalone	$ 53,993	7.0%	$ 4.0m
Spencer Gulf & West Coast Prawn	$ 18,777	2.3%	$ 2.36m
Gulf St Vincent Prawn	$ 19,988	4.0%	$ 1.85m
Southern Zone Rock Lobster	$ 12,239	4.8%	$ 1.29m
Northern Zone Rock Lobster	$ 12,379	3.4%	$ 1.45m
Blue Crab	$ 7,823	13.3%	$700,000 (Pot Licences Only)
Marine Scale	$ 3,169	8.5%	$ 60,000
River & Lakes & Coorong	$ 3,535	3.8%	$ 100,000
Miscellaneous	Not Measured	Not Measured	No Market Value

Major source : Econsearch Economic Indicators Reports

Appendix 4: Material Considered By The Review Panel

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GLOSSARY

For the purposes of this consultation paper the following terms have the meanings ascribed to them below:

“abalone” means abalone (Haliotis spp.) of all species;

“aquatic reserve” means any waters, or land and waters, declared by proclamation to be an aquatic reserve;

“authority” means a licence, permit or registration;

“boat” means any means of transportation on or under water;

“device” means any implement, apparatus, device or substance for taking or facilitating the taking of fish;

“the Director” means the Director of Fisheries;

“exotic fish” means those fish declared as such by regulation and tend to be those not native to South Australia;

“fish” means an aquatic organism of any species and includes the eggs, spat or spawn, or the body, or part of the body (including the shell) of such an organism;

“fisheries officer” means a person who is a fisheries officer under Part 3 of the Act;

“fishery” means a class of fishing activities declared by regulation to constitute a fishery under Division 1 of Part 4 of the Act;

“fishery licence” means an authority to take fish for commercial purposes;

“fishing activity” means the act of taking fish, or an act preparatory, or involved in, the taking of fish;

“fish processor” means a person who for the purpose of trade or business, processes or purchases or obtains fish;

“individual transferable quota” (ITQ) means that part of a total allowable quota attached to an individual licence;

“marine mammal” means a seal or sea lion (Order Pinnipedia) or a dolphin or whale (Order Cetacea);

“marine park” means any waters, or land and waters, constituted a marine park by proclamation under Division 2 of Part 4 of the Act;

“PIRSA” means South Australian Department of Primary Industries & Resources;

“processing” in relation to fish, means scaling, gilling, gutting, filleting, freezing, chilling, packing or any other activity involved in preparing fish for sale;

“registered fish processor” means a person registered as a fish processor under Division 5 of Part 4 of the Act;

registered master” means:

(a) means a person registered by endorsement of a fishery licence under Division 1 of Part 4 of the Act as master of a boat that may be used pursuant to the licence; and

(b) includes a person acting in the place of a person referred to in paragraph (a) with the consent of the Director and in accordance with the conditions (if any) of that consent;

“SARDI” means the South Australian Research and Development Institute

“species” includes sub-species or variety;

“sustainable yield or use” means the use of a species or ecosystem at a rate within its capacity for renewal or regeneration

“take” in relation to fish means catch, take or obtain fish (whether alive or dead) from any waters or kill or destroy fish in any waters;

“total allowable catch” (TAC) means the total catch allowed to be taken from a fishery per unit in time.