ALLOCATION OF THE WESTERN ROCK LOBSTER RESOURCE BETWEEN USER GROUPS

Department of Fisheries submission to the Integrated Fisheries Allocation Advisory Committee

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EXECUTIVE SUMMARY

In this submission to IFAAC, the Department will outline what it believes are the most practical and cost effective ways of managing a system of allocation amongst the commercial, customary and recreational sectors. This recommendation recognises that cost efficiencies and outcomes will be greatly affected by the type of allocation model that is chosen. **Consequently the Department recommends that the allocation system should be based on a single allocation to each sector that is available over the entire fishery,**

The Department does not recommend having any finer scale zoning of the allocations, or the creation of exclusive recreational fishing areas. These would result in significant additional management, monitoring and compliance costs. Finally, the Department recommends that a re-allocation system be developed that will enable adjustment of the resource shares in the future.

The lobster resource allocation for customary fishing is considered by the WA Government to have priority over the commercial and recreational allocations.

This submission should be read in conjunction with the '*Integrated Fisheries Management Report – Western Rock Lobster Resource – Fisheries Management Paper No. 192*', February 2005.

INTRODUCTION

The Department of Fisheries (the Department) does not represent any sector with regard to their levels of access to the stocks of western rock lobster (WRL). The Department manages the WRL stocks on behalf of the Government for the benefit of all Western Australians. It is not therefore the Department's role to suggest the size of the allocations that should be made to each sector that use the resource. However, the Department recognises that there should be a fair and equitable mix of recreational, commercial and customary fishing.

For the purposes of this submission, it is important to note that indigenous people partake in both recreational and customary fishing; however, customary fishing is currently unreported and it will be an additional allocation to that of the recreational sector's allocation. Recreational fishing by indigenous people is simply considered part of the recreational fishing total.

The Department is of the view that the following should be taken into account when determining the allocations:

- the historical proportion of the WRL resource taken by the various sectors (recreation (which includes indigenous), commercial and customary) and the likely future trends in those proportions;

- the economic and social benefits and costs of each sector's use of the WRL resource;[1]
- the most important marine areas used by each of the sectors to take WRL and the most likely areas of competition and resource sharing conflict between the sectors;
- the practicality and ease of managing, monitoring and enforcing the implementation of allocations;
- data collection;
- customary and indigenous fishing; and
- cost of compliance.

The above points will be discussed further throughout the Department's submission to IFACC.

Currently there is a lack of information concerning the level of WRL taken for customary fishing purposes. However, while the ability to quantitatively analyse the extent of the customary take of WRL is low, the Department recognises that this activity holds great importance and requires a separate allocation of the resource.

The allocation of the WRL resource for customary fishing is considered by the WA Government to have priority over the commercial and recreational allocations. The Department supports the Government's view that a priority allocation should be made for customary fishing and that it should be based on the methodology used to produce the estimates provided in the IFM paper[2]. It is important for IFAAC to note that although the customary fishing allocation is derived from estimates of the recreational fishing take (out of necessity due to the lack of data on customary fishing, as it is currently unreported) it is not part of the recreational fishing allocation. Customary fishing is separate and additional to the recreational catch.

Allocation between sectors must be based on a proportional share of the catch and not on explicit tonnages. Therefore, the allocation models considered in this submission are premised on using the historic catch share of each sector[3]. The possible compensation issues that may arise if the ultimate allocations are considered too different by the sectors from the current proportions, should be considered in accordance with the '*Integrated Fisheries Management Government Policy – 1 October 2004*' under the section relating to compensation (paragraphs 14 – 17 inclusive).

Given that the Department is responsible for managing the fishery and ensuring compliance to the rules, it clearly has strong preferences regarding the allocation model that should be implemented. Consequently, in additional to providing answers to the specific questions that IFAAC requested, the Department's submission will also outline the issues that are relevant to the determination of what model should be chosen. Finally, a set of recommendations is provided for IFAAC's consideration.

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[1] McLeod, R and J, Nicholas, 2004. *A socio-economic valuation of resource allocation options between recreational and commercial fishing uses.* FRDC Project 2001/065.

[2] *Integrated Fisheries Management Report – Western Rock Lobster Resource* – fisheries management paper 192, February 2005, pp 62 – 63.

[3] Refer to paragraph 18 –19 inclusive of the *Integrated Fisheries Management Government Policy – 1 October 2004*.

HISTORIC PROPORTION OF THE WRL RESOURCE TAKEN BY THE VARIOUS SECTORS AND THE LIKELY FUTURE TRENDS IN THOSE PROPORTIONS.

1. *The estimation of the proportional catch shares during the five-year period from 1997 to 2001, drawing on the data presented in the Rock Lobster Resource IFM report.*

Background

The catch of WRL by the recreational sector has been estimated using a number of methods during the last 20 years. This includes creel surveys, mail surveys, phone recall surveys and phone diary surveys. Each of these estimation methods has advantages and disadvantages both related to the costs of undertaking the surveys in order to produce an estimate with appropriate levels of precision, but also in terms of the differences in the level of bias associated with the estimation methodology (i.e. how accurate the method is).

The estimation method with the longest time series is the end of season mail survey, which has been in operation for the past 17 years. This method involves the distribution of letters to a random selection of licence holders requesting they return information on their catch and effort for the past season. Such surveys, which require individuals to recall their activities over about a 12-month period, are now known to produce recall biases in the estimates they generate (generally overestimating by a factor of about 2) and are also affected by non-response bias (respondents fishing activity may be different to non-respondents fishing activity). The bias is, however, generally consistent through time and therefore the changes in the calculated estimates among years can provide an accurate record of the trend in catches.

Methods

Determination of the level of bias

In two separate years, a phone diary survey was undertaken with a random selection of licence holders concurrent with the mail survey. These diary-based surveys provide more accurate catch and effort estimates. They involve individuals filling in a daily diary of their fishing activities and a researcher then calls them once a month to obtain the data. This results in a very low non-response rate and greatly reduces the recall bias. The diary method generated estimates that were about half the level of the mail survey, which is consistent with the expected bias in the mail surveys (a similar level of bias has also been found in the Tasmanian recreational lobster fishery).

From the two comparisons, a correction factor of 1.90 (SE: 0.3) was determined using a linear regression method to adjust the 17 years of mail survey data. However, as there are only two data points for the phone diary survey, this value should be treated as preliminary. A further comparison year will be available after the 2004/05 season, following which there will be a recalculation of the correction factor that will be applied to the historic mail survey data.

Results

Historical Catches

Given the above result, the best estimates of the recreational catch of WRL over the last 17 years are obtained by using the mail survey data which have been suitably adjusted using the calculated level of bias (i.e. the correction is currently the mail survey annual catch divided by 1.90). These data are shown in Attachment 1, Figure 1.

The recreational catch, like the commercial catch, undergoes relatively large fluctuations between years depending upon the relative level of recruitment that occurred three to four years previously (as measured by the puerulus settlement index). These fluctuations are natural and are greater in the southern half of the fishery were the bulk of recreational fishing occurs.

In addition to these fluctuations in catch, there has been an underlying long-term trend for increased recreational catches, which have risen about four-fold since 1986/87 due to a long-term increase in effort of about 4% per year. Thus, the recreational catch (using the adjusted mail survey results) has increased from about 120 tonnes in the mid 1980s to levels that currently exceed 400 tonnes (catch data provided in attachment 1, Table 1). The percentage of the total WRL catch taken by the recreational sector has increased from about 1% in the mid 1980s to levels that now exceed 3%. During the reference period (1997/98-2001/02) the recreational take varied between 2.3 - 3.1% of the total lobster catch (Attachment 1, Figure 2).

Forecasted Catches

The relationships between puerulus settlement indices (combined with expected levels of effort) and the recreational and commercial catches three to four years later have been developed and are reported annually in the State of Fisheries Reports. The projections for the three year period for which puerulus settlement data are currently available suggest that the recreational catch will be about 460 tonnes in 2004/05, but will decline in each of the following two years given the lower puerulus settlement levels that occurred during the 2001-2004 period.

Thus, whilst the proportion of the total catch caught by the recreational sector is likely to increase to approximately 3.5% in 2004/05, this will, assuming no major management changes, probably decline in the next 2 – 3 years to levels below 3%. This decline is likely to occur because of the predicted downturn in abundance (particularly in the southern region) and the lower recreational participation rate that this is known to have produced in the past (Attachment 1, Figure 2).

THE ECONOMIC AND SOCIAL BENEFITS AND COSTS OF EACH SECTOR'S USE OF THE WRL RESOURCE.

2. ***Your organisation's proposal on what proportion of the share of the sustainable harvest level should be allocated to the sector you represent. Your response should take into account the guiding principles and provide supporting arguments or justification for your position.***

Most of these are covered in *Integrated Fisheries Management Report Western Rock Lobster Resource*, Section 4 - Factors that influence the net benefit from use of the resource. The Department notes that the commercial and recreational sectors each provide substantially to the Western Australian community both economically and socially. A brief summary is provided below.

The commercial fishery contributes directly to the State and National economy principally through the generation of export earnings. The catch from the commercial fishery has averaged 11,400 t per season over the past 10 years, the majority of which is exported to Asia, North America and, to a lesser extent, Europe.

This makes this fishery Australia's most valuable single species fishery, with a seasonal gross value of production between $250 and $350 million. Using standard multipliers for the associated industries, the fishery has a gross flow-on worth about $670 million (2001/02)[4].

Commercial fishing:

- generates significant export earnings (on a sustainable basis) as most of the commercial catch is exported, however, it also has significant import costs associated with its operations (e.g. bait, fuel, equipment, etc);
- plays an important (in some cases vital) role in the economic, social and infrastructure aspects of regional coastal centres;
- generates significant levels of employment particularly in regional coastal centres; and
- the majority of management, compliance and research resources goes into the commercial fishery, which is totally cost recovered such that there is no direct cost to Government.

The commercial fishery operates out of a large number of ports along the central coast of WA and therefore has a special significance for regional economies. Each of the 545 vessels has a crew of 2 or 3 (a skipper and one or two deckhands), resulting in about 2000 people being directly employed by this fishery. In addition, there are around 6500 people employed by the lobster processing sector and the associated support and service industries.

In addition to the generation of significant economic activity and employment, much of the infrastructure within these coastal communities, including their ports, harbours and in many cases the towns themselves, has been created (and maintained) as a result of the commercial rock lobster fishery. In terms of future directions, the Department recognises that economic factors outside of the industry's control, such as fuel costs, exchange rates and market prices, are impacting on the rates of return to commercial operators. It is therefore expected that fleet size will need to continue to decline to maintain industry viability.

Recreational fishing for rock lobster has been growing in popularity with a long-term increase of 4% per year. Approximately 80% of the recreational catch has been taken in Zone C of the fishery (10 year average). Currently, over 40,000 people are licensed

[4] *Integrated Fisheries Management Report – Western Rock Lobster Resource* – Fisheries Management Paper 192, February 2005, p 27.

to fish for rock lobster in WA. Besides acknowledging the high participation rate and value associated with the fishing experience, factors such as the availability and price of the product on the market place need to be considered in the allocation debate.

Recreational fishing:

- generates some employment;
- has import costs associated with it operations (e.g. bait, fuel; equipment, etc), but at a much lower level than the commercial fishery;
- can play an important seasonal role in the economic and to a lesser extent, social aspects of some regional coastal centres through adding to tourism;
- is an important lifestyle/leisure activity for many Western Australians living or holidaying in the regional centres of the west coast;
- compared to the commercial sector, a relatively small amount of the management and compliance resources go into the recreational fishery; and
- revenue from recreational WRL licence fees contributes significantly to the management cost associated with recreational fishing generally.

Customary fishing is considered different from that of recreational fishing in that it is undertaken to meet different objectives (e.g. ceremonial occasions, special events and eduction purposes). Indigenous people participate in both recreational and customary fishing for WRL. From discussions with indigenous stakeholders it has been estimated that approximately 10% of their fishing activity for WRL is for customary purposes.

Customary fishing:

- maintains culture and cultural heritage;
- is important for educational purposes; and
- is a source of food and has associated health benefits.

ALLOCATION MODELS

The following section of this submission provides a detailed discussion on the points raised by IFAAC for further comment, these are:

- ***Your organisations views on areas of resource sharing conflict be they in terms of proportions of total catch or more localised competition in certain times of the year;***

- ***Your organisations proposals on possible strategies to overcome any localised competition/resource sharing issues (e.g. closed areas, differential size limits etc);***

- ***Innovative solutions to resource sharing conflicts consistent with meeting the objective of ensuring allocations are in the best interest of the community. This could include comments on any spatial or temporal solutions, which you believe that IFAAC should take into account in formulating its allocation recommendation; and***

When considering a resource allocation model for the rock lobster fishery, it is important that it recognise the current management regime of the fisheries. The commercial sector is largely based on input controls and management of separate zones, whereas the other user groups, in particular the recreational sector, is managed as one fishery without any zone boundaries. In addition, the allocation model chosen for implementation should preferably be sufficiently flexible to allow for any management changes that may be required, such as the possible implementation of output (quota) controls.

The Department's preferred option is to have a single recreational allocation across the entire fishery, however, it is recognised that a much larger proportion of the catch is taken in the southern region, particularly in the metropolitan area. If this becomes an issue in the future, the Department would implement zone specific management.

IFAAC needs to be mindful of that there are clear and sensible differences behind why commercial and recreational fishers fish for rock lobster. The catching of rock lobsters by the recreational community is an experience that has been highly valued by generations of Western Australians. Many of the recreational sector may value the experience of fishing for rock lobster beyond simply catching something to eat. This could involve the companionship of friends and family, the preparation and setting of gear and the anticipation of the catch could all form part of the attraction of rock lobster fishing. Fishing for rock lobster may also be regarded by some as being intrinsic to their Western Australian lifestyle.

Although most commercial fishers will have the economics of their activities as a primarily driver, in order to remain competitive and produce an appropriate return on their (very considerable) investment, it is also likely that many commercial fishers chose to fish for rock lobster due to the lifestyle it offers. This situation is however changing and it will vary between owners of the licences/pots and the crews that now operate the vessels, none of whom may own any of the investment.

It is important that IFAAC is aware that the two fishing sectors (commercial and recreational) both operate throughout the duration of a fishing season. However, the biology of the lobsters and the different gears available combine to influence the degree to which resource sharing conflicts arise.

Recreational fishers generally use boats less than 7.5 meters in length, and in most cases do not have power-assisted winches. Most recreational fishing for lobsters therefore occurs in sheltered inshore waters less than 20 meters depth, with the highest levels of effort in the metropolitan region. The commercial fishery utilises all available fishing grounds. The commercial fishery is able to fish effectively for WRL in shallow waters and out to the deep-water environments on the edge of the continental shelf break. It should be noted that the main commercial fishing activity alternates between shallow and deep-water environments throughout the duration of a season.

The peak in commercial fishing activity in the shallow inshore waters occurs in November/December during the "whites phase" of the fishery. This coincides with the peak in recreational fishing activity and is the period of the highest level of resource sharing conflict between the two user groups. At other times of the season

less interactions occur due to lower recreational activity, though there is some interaction around Easter when WRL abundance and catchability in shallow waters increases following the February – March moult.

Given the locations where the majority of recreational effort occurs, the greatest resource sharing conflicts would be likely to occur around the highly populated coastal strip within the metropolitan areas and Rottnest Island. Other potential areas of conflict would be in other areas of Zone C and the southern part of Zone B around coastal towns as these areas are traditionally very popular with holidaymakers, many of whom go rock lobster fishing.

IFAAC therefore needs to be mindful that the high level of conflict is not a season long issue, rather the height of conflict between user groups occurs during the peak holiday seasons (Christmas, Easter), the start of the season and the 'whites run' in summer. There are a number of strategies that may be utilised by the Department to alleviate the conflict between user groups during the peak user times during the season. However, the strategies that are implemented in the fishery will depend heavily on what allocation model is adopted. It is important to note that it is the role of the Department to develop and implement any management strategies that may be required to address these issues.

There were a number of general issues to be considered when developing the following allocation models. These include that:

- the allocation is based on catch and not effort;
- an overall catch figure is assigned to the whole fishery (e.g. 11,500 tonnes) and then separate allocations are derived from that; and
- the allocations should be regularly reviewed but should have a working life of about five years.

The possible allocation models that could be adopted for the rock lobster fishery include allocation of the resource[5]:

- across whole fishery;
- based on north (Zones A/B) and south (Zone C) zoning;
- based on each of the current commercial fishery zones; and
- based on specific area closures (either stand alone or in combination with the above three models).

Whichever allocation model is chosen there will also be a need to develop an agreed process and strategy for dealing with the possibility of the recreational sector's catch achieving and surpassing the agreed allocation level. There are a number of different management strategies that may be implemented if this occurred. These include increased restrictions on the recreational sector or the purchase of commercial allocation for the recreational sector.

[5] The commercial fishery already has management arrangements in place. Therefore, the proposed allocation models have been applied to the recreational fishery in the context of the existing management arrangements of the commercial fishery.

The commercial fishery is already unitised and the level of effort in each zone is effectively controlled by these restrictions, however, there will be variations in the annual catches due to natural fluctuations in puerulus settlement. The recreational fishery on the other hand can increase effort in any zone as there are currently no restrictions on the number of recreational fishers or where they fish.

Allocation model 1: Allocation of resource across whole Fishery

This allocation model is one that encompasses the entire fishery, for example, an allocation of approximately 95% for the commercial fishery, approximately 5% for the recreational fishery (as measured using the adjusted mail survey or phone diary survey methodology) and less than 1% for the customary fishing allocation (currently unreported).

This allocation model allows flexibility in the management of the resource and maintains the cost associated with compliance at a reasonable level. It would maintain the stability of the resource across the State while the options for future management of the commercial sector (e.g. quotas and more flexible effort controls) are progressed and IFM is adopted in other fisheries. By allocating the resource across the entire fishery the management of the fishery can respond efficiently and effectively to circumstances that may arise.

This allocation model, while quite broad in its application, provides IFAAC with its objective of allocating the rock lobster resource to all user groups while not producing a major upheaval in existing management arrangements and thus reducing the need to radically change the current administration and research regimes and operating procedures. However, it needs to be reiterated that this model is flexible and would allow changes to the allocation to be made if circumstances arose, without radically amending all processes.

The costs associated with implementing this allocation model are not expected to be significantly different from current costs associated with managing the rock lobster resource. However, additional costs associated with educating and informing stakeholders of the IFM allocation model would be expected.

This allocation model only requires information to be collected for the recreational and customary fishing sectors at a whole of fishery level. Similarly it only requires licensing of the recreational sector on a whole of fishery level and therefore should not significantly affect compliance costs. Otherwise there could be, for example, different rules on daily catch limits in different areas of the fishery that are unnecessary and more difficult to enforce.

Because the most rapid increase in recreational catches are likely to continue to occur in the southern region the impact on commercial fishers will be different in the two zones (i.e. B and C).

Allocation model 2: Allocation of resource based on the northern zones (Zone A & B) and the southern zone (Zone C)

The recreational rock lobster fishing sector has the highest participation rate in Zone C of the fishery, thus the resource in this zone is subject to the greatest impact by the recreational fishing sector. Recreational participation in the northern region is not as great, therefore pressure on the resource by this sector is reduced.

Recreational fishing pressure in Zone C is expected to increase in the future as the population of the metropolitan area grows.

This second allocation model would effectively divide the management of the recreational fishery into two regions: the southern areas (Zone C) where there is a high recreational use of the rock lobster resource and the areas of moderate to low recreational use in the north (Zones A/B). Under this allocation model, the rock lobster resource allocation for the **recreational** sector would be combined for Zones A/B and a separate allocation would be determined for Zone C.

Based on historic catches (last ten years) Zone C could be allocated approximately 80% of the total recreational catch share, while Zones A/B could be allocated approximately 20%. Given the very small levels of recreational lobster catch in Zone A it would not be provided with an allocation separate from Zone B. The recreational allocations of 80% and 20% represents approximately 4% of the total Zone C and approximately 1.0% of the Zone A/B total catch allocation respectively. This 80% - 20% allocation of recreational catch will fluctuate over time between the two zones due mainly to variations in the puerulus settlement in the southern region.

There is no reason to provide specific allocation among zones within the commercial fishery. This has already occurred through the historical licensing restrictions, pot limits, etc that have evolved for the commercial fishery over the past 40 years.

By allocating a recreational catch for Zone C and A/B, increases in recreational effort/catch in one zone would not have to directly affect the level of allocation in the other.

Allocating recreational catch by zone may be more equitable for the commercial sector because it would mean that increases in recreational fishing in a zone would be fully offset within that zone, not spread across all zones.

This is a somewhat more complicated system to manage in that separate estimates of recreational catch would be needed for the north and south regions. It also has the disadvantage that future management may need to be regionally (zone) based rather than whole of fishery based. This could raise additional issues for the recreational sector with regard to implementation and compliance.

Briefly outlined below are some of the many issues and costs associated with the implementation of this allocation model:

- compliance cost could increase;
- increase in education costs;
- increase in reporting/monitoring costs;
- equity issues (discriminates between north and south fishers);
- recreational licensing issues (two zones, north and south); and

- it could be regarded as anti-competitive for the commercial sector (Federal issues).

Given that the customary fishing allocation will be relatively small, it would be made on a whole of fishery basis in the first instance. If in the future, information on customary fishing indicates a zone-by-zone allocation is appropriate it can be addressed at that time.

Allocation model 3: Allocation of resource based on each of the current commercial fishery zones A, B and C

Under this allocation model, there would be the need to initially set a total catch for the fishery and then allocate a catch amount to each zone and then from that allocation the commercial, customary and recreational allocations would be derived. For example the initial allocation could see Zones A, B and C being allocated 15%, 35% and 50% respectively. After the initial zone allocations, the allocations for each sector in the separate zones would be derived. This could be approximately 95% for commercial sector, less than 1% for customary sector and approximately 5% for the recreational sector in Zones B and C. The Zone A commercial allocation could be approximately 98%, less than 1% for customary sector, and approximately 2% for the recreational sector as the catch in Zone A by the recreational and customary sector is quite small[6].

Given that the customary fishing allocation will be relatively small, it would be made on a whole of fishery basis in the first instance. If in the future, information on customary fishing indicates a zone-by-zone allocation is appropriate it can be addressed at that time.

The issues associated with this allocation model are provided below.

- compliance cost could increase;
- increase in education costs;
- increase in reporting/monitoring costs;
- equity issues (discriminates between north and south fishers);
- recreational licensing issues; and
- it could be regarded as anti-competitive for the commercial sector (Federal issues).

Given the very small recreational catch in zone A, there is no justification for using this model.

Allocation model 4: Allocation of resource based on specific zone closures for the commercial sector

To recognise the high value to the recreational fishing sector associated with certain inshore areas and to manage the competition between the sectors more "recreational rock lobster priority fishing zone" could be established similar to that established at Rottnest Island. The creation of recreational fishing priority zones has been well

[6] This is an example only and not based on factual data.

received by the community in the rock lobster and other fisheries and based on its success, many recreational fishers may believe it is appropriate that this management approach be used in other **inshore** areas which are subject to intense fishing pressure.

Under this allocation model the recreational sector would have priority over the commercial sector to access areas of high use, such as the inshore coastal regions off the metropolitan area. Such areas would be closed to the commercial sector either for the entire season or for part of each season. For example, the peak in recreational fishing effort occurs during the 'whites' run in Dec/Jan, therefore, any recreational fishing priority zones along the coast (with the exception of Rottnest Island) could apply just to the Dec/Jan period. This model could be used in combination with one of the percentage based models outlined above (i.e. as one of the strategies to assist in achieving an appropriate share of the resource), or it could be used alone as an alternative approach of achieving a more targeted allocation outcome.

Such priority areas could be seen as a possible strategy to provide the recreational sector with greater access to the rock lobster resource and reduce the conflict with commercial fishers. While this model would separate the two main user groups from conflict on the water it could, however, create social conflict and further divide the recreational and commercial sectors.

It is important to note that natural variability in puerulus settlement and thus recruitment to specific areas will significantly change the abundance of WRL available to fishers in different areas and in some years the exclusive zones could produce very little WRL for the recreational sector.

Operationally this allocation model would require boundary checks mainly during peak periods of activity for the recreational sector. However it also has the potential to create some significant compliance related problems.

The creation of exclusive zones attracts a greater level of activity as fishers believe that their fishing opportunity is higher because competition with much more efficient operators (commercial fishers) is removed.

If this model were adopted, the allocation of the resource would have to consider recreational fishers who fished in both the recreational only areas and also the combined commercial/recreational fishing areas. Serious thought would have to go into how the resource would be allocated in this instance. One would assume that the allocation for each user group would be across the fishery and not closed area specific thus being fair and equitable to those who do fish inside and outside the closed areas. If the allocation for recreational fishers were separated between inside and outside the closed areas, then there would be a major compliance issue regarding proof of area of capture by the fisher.

If more closed (to commercial fishers) waters were introduced around the metropolitan and other high use areas, there would be a need to educate all user groups of the closed waters and increased compliance requirements.

The possible issues associated with the implementation of this type of allocation model are:

- compliance cost could increase;
- increase in education costs;
- increase in reporting/monitoring costs;
- equity issues (discriminates between north and south fishers);
- increased conflict between user groups at ports close to the exclusive areas;
- increase costs for commercial operator (distance travelled to fishing ground increased);
- possible reduced commercial catch during whites in some areas and reduced earnings for commercial sector;
- possible reduction in exported rock lobster – impact on markets;
- could increase fishing pressure on inshore stocks through a race to catch mentality by all user groups;
- proving where rock lobster were caught (inside or outside the exclusive area);
- recreational licensing issues; and
- it could be regarded as anti-competitive for the commercial sector (Federal issues).

Under this allocation model, it is important to note that customary fishing would have the same access to the exclusion zones as the recreational sector.

RE-ALLOCATION OF RESOURCE SHARES

- ***Mechanisms to allow for future reallocations between the sectors over time.***

To address the inevitable change in resource shares between recreational and commercial sectors that will occur in the future (e.g. an increase in recreational catch due to increased participation rate/population growth), it will be necessary for the Department to develop a mechanism that will enable the re-allocation of the resource.

There are a number of strategies that could be adopted, however, the Department favours the use of revenue generated from recreational license fees, to be used in acquiring an additional portion of the resource. For example pots could be leased from the commercial sector to effectively reduce the commercial catch and re-allocate it to the recreational sector while maintaining the overall catch allocation for the fishery[7].

The WA Government's position is that customary fishing has priority allocation over both commercial and recreational fishing sectors. As a result, the outcomes of any re-allocation of the WRL resource will need to ensure that customary fishing needs are met.

CONCLUSION

To put the Department's submission to IFAAC in context, it is important to state what it believes are the practical and cost effective ways of managing any allocation model. The allocation model should be either:

[7] The South Australian Rock Lobster Fishery currently operates a similar catch adjustment system where commercial quota is leased for the recreational sector.

- based on an allocation to each sector over the entire fishery - allocation model 1, or
- a split of the **recreational** catch on a north-south zone basis - allocation model 2, i.e. an allocation for Zone C and one for Zone A/B, to account for the fact that most of the recreational catch is taken in Zone C.

The Department prefers allocation model 1 as it encompasses the entire fishery, for example, an allocation of about 95% for the commercial fishery, less than 1% for the customary fishing sector, and about 5% for the recreational sector.

The Department views this allocation model to be the simplest, most equitable and fairest for all user groups. It allows flexibility in the management of the resource and maintains the cost associated with compliance at a reasonable level. It will maintain the stability of the resource across the State while the options for future management of the commercial sector (e.g. quotas and more flexible effort controls) are progressed and IFM is adopted in other fisheries. By allocating the resource across the entire fishery the management of the fishery is not significantly changed and can respond efficiently and effectively to circumstances that may arise.

In determining the final percentage allocation for model 1, the Department would support the use of a range (trigger limit) for the percentage allocation for both the commercial and recreational catch. This approach is consistent with that being proposed for the Decision Rules Framework (DRF)[8], which is associated with maintaining a safe level of breeding stock. If, for example, the commercial and recreational percentage allocation level was chosen to be 95% (historical catch) and 5% (based on phone/diary method), respectively, then these allocation percentages would be allowed to move up or down by 1% before any management action would be required[9]. The use of the catch predictions for recreational and commercial catches would provide an early indicator as to the future catch trends to enable pro-active decisions to avoid these levels being breached.

It is important to note that any further zoning of the allocations (above that of Zone C and Zone A/B) or the creation of exclusive recreational fishing areas would incur significant additional management and compliance costs.

Future management of the IFM process will require the development of a simple re-allocation system that enables the adjustment of resource shares as they change over time.

In relation to customary fishing the WA Governments position is that customary fishing has priority allocation over both commercial and recreational fishing sectors.

[8] *Development of a Fisheries Management Decision Rules Framework for the West Coast Rock Lobster Fishery*. RLIAC discussion paper by Tim Bray, January 2004.

[9] The DRF for stock assessment involves the Department using a 3-year moving averages for the key indicators and it is recommended that the same approach be used to monitor the catch share for IFM purposes, as it avoids the possibility of making changes to allocations based on one seasons catch which can vary significantly.

As a result, the initial allocation and outcomes of any re-allocation of the WRL resource will need to ensure that customary fishing needs are met.

REFERENCES

1. *Integrated Fisheries Management: Government Policy – 1 October 2004*.

2. *Integrated Fisheries Management Report – Western Rock Lobster Resource –* Fisheries Management Paper 192, February 2005, p 27.

3. McLeod, R and J, Nicholas, 2004. *A socio-economic valuation of resource allocation options between recreational and commercial fishing uses.* FRDC Project 2001/065.

ATTACHMENT ONE

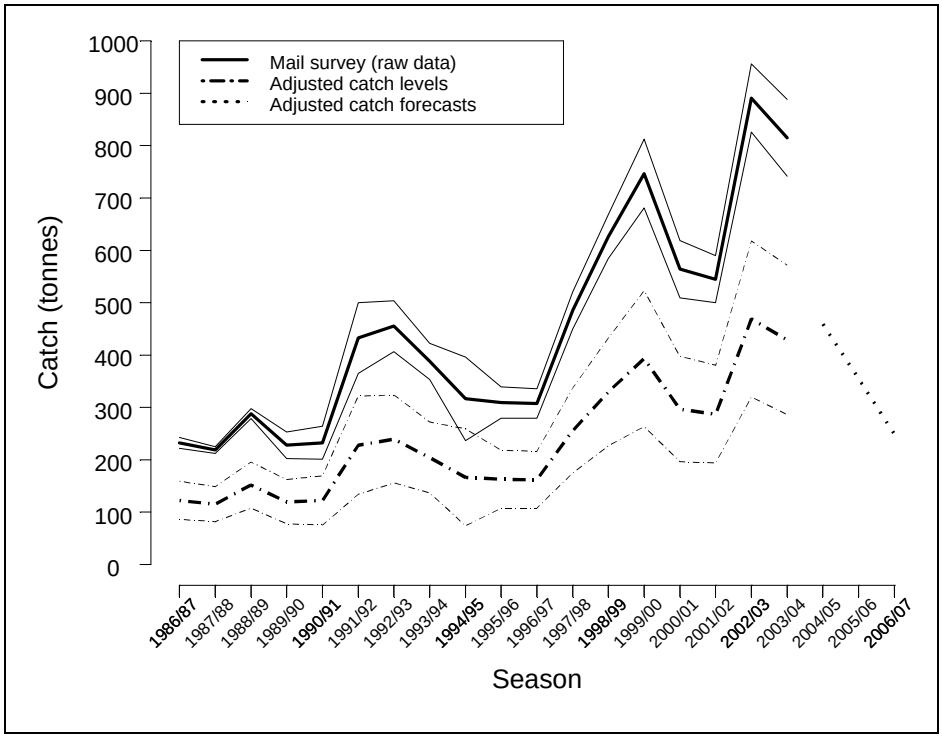

Figure 1 Plots of the recreational catch estimates (thick lines) for western rock lobster based upon both the 'raw estimates' from the mail survey and the adjusted estimates calculated from the 'phone diary based' correction factor. The 95% confidence intervals are also presented (thin lines). The forecast recreational catches for 2004/05-2006/07 are based on puerulus settlement levels for the period 2001-2004.

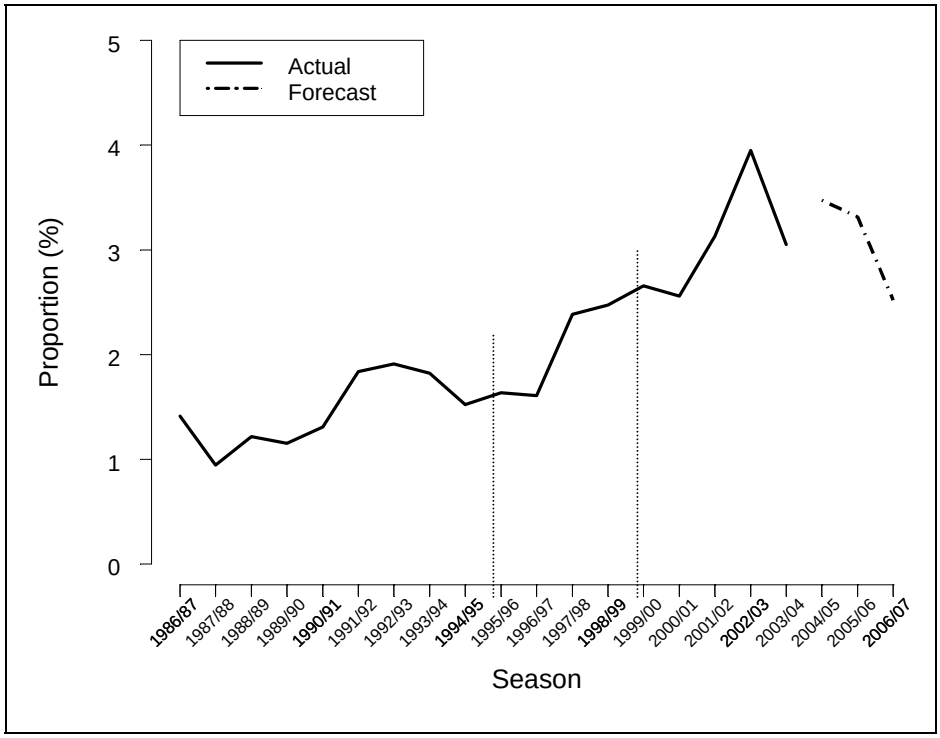

Figure 2 The proportion (%) of the total western rock lobster catch taken by recreational fishers using the adjusted recreational catch estimates. The two vertical dotted lines indicate the reference period 1997-2001. The forecast percentages are based on the expected commercial and recreational catches for the next three seasons (2004/05-2006/07 see above).

Table 1 The best estimates of recreational lobster catch levels and their proportion of the total lobster catch calculated using the adjusted mail survey data. The data for 2004/05-06/07 (in italics) are projected data based upon puerulus settlement data and expected levels of effort.

Year	Recreational Catch (tonnes)	% of total lobster catch
1996/97	161	1.5
1997/98	255	2.4
1998/99	329	2.5
1999/00	392	2.6
2000/01	286	2.5
2001/02	287	3.1
2002/03	468	3.9
2003/04	428	3.1
2004/05	*460*	*3.5*
2005/06	*350*	*3.3*
2006/07	*280*	*2.5*