Department of Primary Industries

PUBLIC CONSULTATION PAPER:

Reform options for the NSW Ocean Trap and Line Fishery

Published by the NSW Department of Primary Industries

Public consultation paper: Reform options for the NSW Ocean Trap and Line Fishery

First published April 2014

More information

www.dpi.nsw.gov.au/fisheries/commercial/reform

OUT14/9865

Readers guide

This paper includes reform options for comment that are specific to the NSW Ocean Trap and Line Fishery (OTLF).

Anyone with an interest in the demersal fish trapping, line fishing western zone and/or line fishing eastern zone share classes should read the options presented in this paper and, where possible, provide feedback.

The following provides an overview of the documents available:

General information paper	Provides general information about the reform program and issues applicable to all reform fisheries. **A 'must read' for everyone to understand the background.** The paper is titled "*General information relating to the reform program and reform options for the NSW commercial fisheries*".
Fisheries options papers This paper you are reading	These contain information about the options that have been shortlisted for specific fisheries or share classes. They include possible linkages, total catch/effort levels and potential changes to existing restrictions, along with the advantages and disadvantages of each option. **A 'must read' if you hold shares in, or have an interest in, these fisheries.**
Technical paper	A separate paper has been prepared detailing how the proposed total catch/effort levels have been calculated. The paper is titled "*Setting the Interim Total Commercial Access Level (ITCALs)*".
Submission forms	Submission forms are available for each of the fisheries options papers. Relevant forms will be mailed to all shareholders and will also be available on the reform webpage: www.dpi.nsw.gov.au/fisheries/commercial/reform

NOTE:

The OTLF paper includes some specific issues that DPI is seeking feedback on. These are detailed in red boxes throughout this paper and are included in the Ocean Trap and Line submissions form. It is important to note however, that this should not limit any feedback on the overall options; comments are welcome on all aspects of the reform options.

Have your say

A key part of the Reform Program is getting valuable feedback and ideas from industry and interested stakeholders. Constructive feedback to help work out the best overall approach will assist in shaping future management arrangements.

The complexity of the options laid out in this paper are acknowledged, as is the difficulty some fishers may have in working through the issues covered. If you require assistance in understanding the options presented or in developing a submission please contact the relevant Fisheries Manager, or the Industry Liaison Manager on the contact details provided below.

DPI staff will be visiting regional ports over the consultation period, during which time commercial fishers will have one-on-one opportunities to discuss questions and issues.

A submission form is available to provide comments. Alternatively, you may submit your comments in another form, such as a letter or summary of your views on each of the reform packages presented in this paper.

Note that submissions may suggest variations to the options presented in the fisheries options papers, provided they are within the broad scope of what the NSW Government approved and announced in November 2012[1] and are consistent with the reform program objectives described above.

However you choose to provide comment, it is important to note that subsequent decisions will be based on merit, rather than numbers for and against particular options.

The closing time for comments is 8am Monday 19th May, 2014.

Send your response to:

Mail: PO Box 4291, Coffs Harbour, NSW, 2450

Fax: (02) 6391 4726

Email: commfish.wg@dpi.nsw.gov.au

Following the closing date, a summary of the submissions will be prepared and made available on the DPI website. In arriving at decisions, the Minister will consider the issues raised in submissions, the views of key stakeholder groups, DPI's advice and final recommendations from the independent Structural Adjustment Review Committee (SARC).

For more information on the NSW Commercial Fisheries Reform Program visit www.dpi.nsw.gov.au/fisheries/commercial/reform

Or contact Commercial Fisheries Management on (02) 6691 9684.

[1] See www.dpi.nsw.gov.au/__data/assets/pdf_file/0005/448187/Govt-response-to-independent-comm-fisheries-review.pdf

Foreword

The reform options presented in this paper focus on two important components of the broader reform program:

1. creating a stronger link to resource access; and
2. adjusting existing restrictions which have built up over many years and constrain efficiency.

The key objectives of the reform program are to:

- improve the long-term viability of the NSW commercial fishing industry;
- improve the strength and value of shareholders' access rights (i.e. shares); and
- provide shareholders with improved opportunities and flexibility to tailor their access.

The reform options in this paper have been developed by DPI having regard to:

- the Commercial Fisheries Reform Program as approved by the NSW Government in 2012 (after consideration of the *Independent Review of NSW Commercial Fisheries Policy, Management and Administration*);
- ideas submitted by shareholders in writing and through discussions with fisheries managers;
- views from the Ocean Trap and Line Share Linkage Working Group (OTLSLWG) put forward at several face-to-face meetings; and
- advice and recommendations of the Structural Adjustment Review Committee (SARC).

The outcomes of meetings of the OTLSLWG and the SARC throughout 2013 and early 2014 provide insight into the many options and issues considered in the lead-up to developing the reform options in this paper and are available on the NSW DPI website at:

Share linkage working groups (including the OTLSLWG) webpage:
www.dpi.nsw.gov.au/fisheries/commercial/consultation/commercial-fisheries-working-groups/ocean-trap-and-line-share-linkage-working-group

SARC webpage: www.dpi.nsw.gov.au/fisheries/commercial/reform/sarc

Acronyms

DPI	NSW Department of Primary Industries
ITQ	Individual Transferable Quota
FB	Fishing Business
FT	Demersal Fish Trap
GVP	Gross Value of Production[2]
LE	Line Fishing (Eastern Zone)
LW	Line Fishing (Western Zone)
OTLF	Ocean Trap and Line Share Management Fishery
OTLSLWG	Ocean Trap and Line Share Linkage Working Group
SARC	Structural Adjustment Review Committee
SLWGs	Share Linkage Working Groups

[2] Estimated first point of sale only and calculated using Sydney Fish Market average prices.

Contents

Introduction

The NSW Ocean Trap and Line Fishery (OTLF) currently includes six share classes in total, although this options paper covers only three:

- Line fishing (western zone) – hereafter referred to as 'LW';
- Line fishing (eastern zone) – hereafter referred to as 'LE'; and
- Demersal fish trap – hereafter referred to as 'FT').

Separate options papers are also available for the school & gummy shark and spanner crab components of the OTLF.

This paper seeks your feedback on the following reform options for the relevant sectors of the OTLF. These include:

Fish Trap Option 1: days quota allocated to shareholders based on either:

a) current shareholdings; or

b) current shareholdings and recent participation.

Line West Option 1: days quota allocated to shareholders based on either:

a) current shareholdings; or

b) current shareholdings and recent participation.

Line West Option 2: catch quota (individual transferable quota – ITQ) for kingfish allocated to shareholders based on either:

a) current shareholdings; or

b) current shareholdings and recent participation.

Line East Option 1: catch quota (individual transferable quota – ITQ) allocated to shareholders based on either:

a) current shareholdings; or

b) current shareholdings and recent participation.

OTLF Option: managing endorsement numbers using minimum shareholdings.

Changing existing restrictions to improve business and operational efficiency is a key aspect of the broader reform program. In this document, the potential changes to current restrictions for each linkage option are also presented for consideration.

The potential changes to current restrictions generally increase with the strength of the linkage option, with minimum shareholdings being the weakest form of linkage and catch quota being the strongest (see the general information paper for further information).

To assist in considering the options and providing feedback, a number of advantages and disadvantages have been identified for each option, and these are contained at the back of this paper.

Please note: It is important that the reform options are considered within the overall structure of the fishery. Those unfamiliar with this fishery, including shareholders unfamiliar with current numbers of shareholders and endorsements and the distribution of shares in each share class, are encouraged to read the 'Overview of the NSW Ocean Trap and Line Fishery' in Appendix 1.

Options for demersal fish trap (FT)

FT Option 1: Effort quota (days)

This option involves managing effort using a consumable individually transferable quota (ITQ) of days in the FT sector. This is an indirect way of managing catch.

The effort quota could be allocated to fishing businesses (FBs) proportional to the number of shares held and based on either:

a) current shareholdings; or

b) new shares that are issued using a mix of current shareholdings and recent participation.

ITCAL determination

It is proposed to set the FT days ITCAL based on a recent year's maximum reported days fished along with a 10% adjustment to account for steaming, misadventure, etc. (see Table 1). The total reported number of days fished in this sector of the fishery in 2008/09 was 6,678.

Note that ITCALs have been determined in accordance with the methodology set out in the technical paper "*Setting the Interim Total Commercial Access Levels (ITCALs)*" available on the DPI website.

Table 1. Proposed ITCAL (total days) for FT

Sector	Maximum days reported in FT in any year since 2008/09	Proposed ITCAL (includes 10% additional days)
FT	6,878	7,566

FT Option 1a: Effort quota (days) based on current shareholdings

Under this option the FT days ITCAL is allocated to shareholders proportional to the current shareholdings (Table 2).

Table 2. Calculation of days quota in FT based on current shareholdings

Sector	Proposed ITCAL (days)	Total FT shares	Quota (days) per share	Quota (days) per 40 shares
FT	7,566	8,180	0.925	37

Minimum shareholding requirements

It is proposed that the existing minimum shareholding of 40 shares would continue to apply. That is, the shareholder would need to hold at least 40 FT shares in order to be able to fish any of the FT days quota allocated to that shareholder.

Fishing periods and annual effort quota allocations

A fishing period is the period during which a shareholder can use his or her quota of days (effort quota). The fishing period proposed for the FT sectors is a 12 month fishing period commencing 1 July each year.

At the beginning of each fishing period, effort quota (days) would be issued to each shareholder, based on the ITCAL (or in the future the Total Allowable Commercial Effort -TACE) and the proportional number of 'effort shares' held by each shareholder.

If the ITCAL/TACE increased or decreased in the future, the amount of quota allocated to each shareholder at the beginning of each fishing period would increase or decrease accordingly.

If fishing activity in the fishery remained relatively stable, then a 2 year fishing period (with a TACE set for each year of the 2 years) could be considered to keep costs down.

How shareholders could use their quota and acquire additional quota

Information on the use of quota and how to acquire additional quota, along with how quota use will be monitored is provided in the general information paper "*General information relating to the reform program and reform options for the NSW commercial fisheries*".

Defining a 'day'

It is proposed that a day be defined as a 24 hour period from the time the fisher makes a pre-fishing report. This approach aims to cater for the diverse fishing patterns in the OTLF.

Shorter periods, i.e. 8 hours, 12 hours, were considered by working groups. However the 24 hour period is recommended so as to not add complexity for fishers and compliance offers in terms of reporting and monitoring.

FT Option 1b: Effort quota (days) based on a mix of current shareholdings and recent participation

This option involves:

- days quota being determined using a mix of current shareholdings and recent participation;
- the creation of a new class of share – a 'FT days' share class; and
- new shares issued to reflect the days quota allocated to each FB.

The OTLSLWG considered a number of ways of allocating days quota using shareholdings and recent participation. The three main ways modelled included:

- a 20/80 split (current shareholding/recent participation);
- a 33/67 split (current shareholding/recent participation); and
- a 50/50 split (current shareholding/recent participation).

The ITCAL (days) for this option is the same as for Table 2 (explained above). The following provides an example of how the quota could be calculated using the 20/80 model.

<u>Example of how this approach would work (using a 20/80 model):</u>

FT days ITCAL = 7,566 days.

Using the 20/80 model: 20% = 1,513 days, 80% = 6,053 days.

So, 1,513 days (20%) would be allocated to each FB based on the shares currently held (each share would be worth 0.185 days)

The remaining 6,053 days (80%) would be allocated to each FB <u>based on their recent participation</u> (the proportion of effort that they have contributed to the total reported days). That is, their average annual reported number of days fished in FT between 2008/09 and 2011/12. Each FB then gets this proportion of the 6,053 days.

To calculate the overall days quota for each FB, the days allocated based on current shareholdings is added to the days allocated based on recent participation.

The final step would be for the new shares to be issued based on each individual's proportion of total quota allocated. Quota allocations for future years would be based on the new shares only.

As a guide, Figure 1 below shows possible outcomes of a days quota allocation based on the options above. Some of these include:

- For an allocation based on current shareholdings only, 151 FBs would be allocated a days quota in excess of their recent 4 year average. Fifty four FBs would need to acquire an additional 2,500 days (approximately) in total to reach their 4 year average. The amount that each of those 54 FBs would need to buy would depend on their activity level. Generally, the more they fished, the more they would need to acquire; and
- For an allocation based on the 20/80 model, all FBs would receive an allocation above their 4 year average, however, the extra quota amount would differ from business to business.

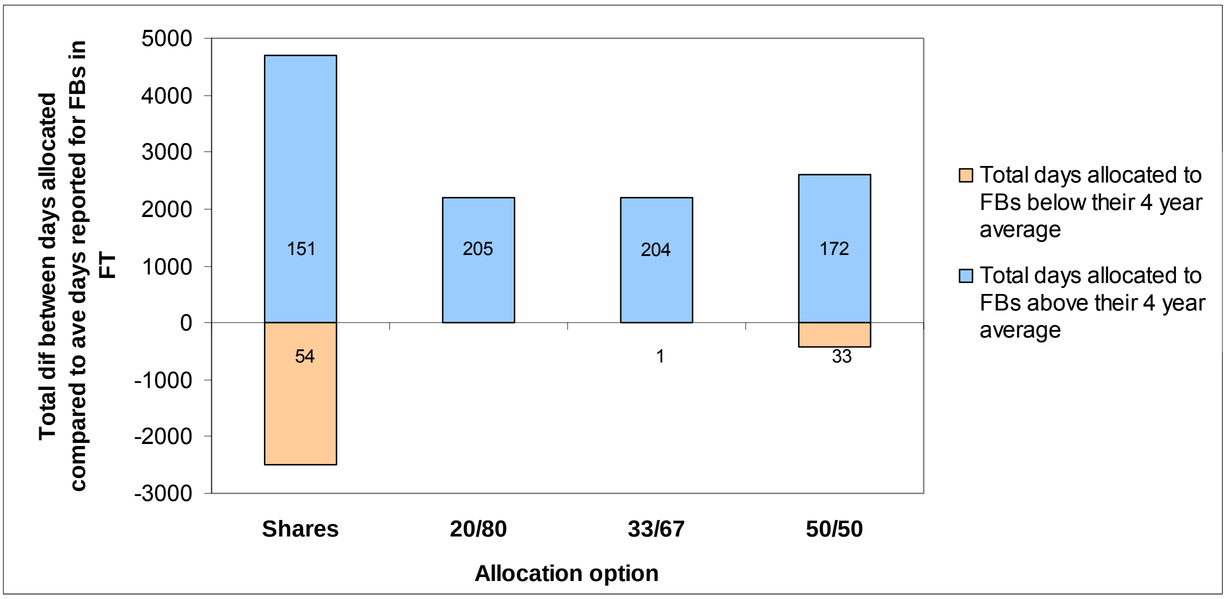

Figure 1. Possible outcome of a FT days regime using different allocation approaches

In relation to Figure 1, it is important to note the following:

- FBs have been used to determine catch allocation; an alternative approach could be to use individual fishers;
- a recent 4 year period has been used for each FB to determine their catch allocation so that it is comparable to the recent 4 years from where the ITCAL was set. Some other period could be used; and
- an average for each FB across those 4 years has been used to determine the proportion that each FB contributed to the total. Some other criteria could be used.

Minimum shareholding requirements

It is proposed that the existing minimum shareholding of 40 shares would continue to apply. That is, the shareholder would need to hold at least 40 FT shares in order to be able to fish any of days quota allocated to that shareholder.

Feedback requested (in addition to comments on options)

An option that has been put forward for FT that could work in conjunction with a days regime is that an additional 40 shares could give shareholders access to 10 additional traps (in excess of the existing 30 trap maximum).

How shareholders could use their quota and acquire additional quota

Information on the use of quota and how to acquire additional quota, along with how quota use will be monitored is provided in the general information paper "*General information relating to the reform program and reform options for the NSW commercial fisheries*".

Note: Additional variations to the option presented above, and the other options, were also considered by the OTSLWG. Details of some of the main variations that have not been included in the options presented in this paper are provided in Appendix 2.

Options for Line fishing western zone (LW)

LW Option 1: Effort quota (days)

This option involves managing effort using a consumable ITQ of days in the LW sector of the OTLF. This is an indirect way of managing catch.

The effort quota could be allocated to FBs proportional to the number of shares held and based on either:

a) current shareholdings; or

b) new shares that are issued using a mix of current shareholdings and recent participation.

ITCAL determination

Prior to 2009/10, catch reporting did not provide a way for fishers to record which endorsement they were fishing under. Fishers simply needed to provide the method they used in the OTLF (i.e. line, trap, spanner crab net) and as such the line method recorded could have been used using the LW, LE or school & gummy shark endorsement. Therefore, determining the number of days fished in the LW sector of the fishery prior to 2009/10 cannot be done with any certainty.

It is proposed to set the LW days ITCAL based on the maximum reported days fished in any year in LW from 2009/10 to 2011/12 (3 years of information).

ITCALs have been determined in accordance with the methodology set out in the technical paper "*Setting the Interim Total Commercial Access Levels (ITCALs)*" available on the DPI website.

Table 3 Proposed ITCAL (total days) for LW

Sector	Maximum days reported in LW in any year since 2009/10	Proposed ITCAL (includes 10% additional days)
LW	10,107	11,118

LW Option 1a: Effort quota (days) based on current shareholdings

Under this option the LW days ITCAL is then allocated to shareholders relative to the current shareholdings (Table 4).

Table 4. Calculation of days quota in LW based on current shareholdings

Sector	Potential ITCAL (days)	Total LW shares	Quota (days) per share	Quota (days) per 40 shares
LW	11,118	13,515	0.82	33

Minimum shareholding requirements

It is proposed that the existing minimum shareholding of 40 shares would continue to apply. That is, the shareholder would need to hold at least 40 LW shares in order to be able to fish any of the LW days quota allocated to that shareholder.

Fishing periods and annual effort quota allocations

It is proposed this be consistent with the FT days approach – see page 2.

How shareholders could use their quota and acquire additional quota

Information on the use of quota and how to acquire additional quota, along with how quota use will be monitored is provided in the general information paper "*General information relating to the reform program and reform options for the NSW commercial fisheries*".

Defining a 'day'

It is proposed this be consistent with the FT days approach – see page 3.

LW Option 1b: Effort quota (days) based on a mix of shareholdings and participation

This option involves:

- days quota being determined using a mix of current shareholdings and recent participation;
- the creation of a new class of share – a 'LW days' share class; and
- new shares issued to reflect the days quota allocated to each shareholder.

The OTLSLWG considered a number of ways (models) of allocating days quota using shareholdings and recent participation. The three main models included:

- a 20/80 split (current shareholding/recent participation);
- a 33/67 split (current shareholding/recent participation); and
- a 50/50 split (current shareholding/recent participation).

The ITCAL (days) for this option is the same as for LW Option 1a (Table 4). The following provides an example of how the quota could be calculated using the 20/80 model.

<u>Example of how this approach would work (using a 20/80 model):</u>

LW days ITCAL = 11,118 days.

Using the 20/80 model: 20% = 2,224 days, 80% = 8,894 days.

So, 2,224 days (20%) are allocated to each FB based on the shares currently held (each share is worth 0.165 days).

The remaining 8,894 days (80%) would be allocated to each FB <u>based on their recent participation</u> (the proportion of effort that they have contributed to the total reported days). That is, their average annual reported number of days fished in LW between 2009/10 and 2011/12. Each FB then gets this proportion of the 8,894 days.

To calculate the overall days quota for each FB, the days allocated based on current shareholdings is added to the days allocated based on recent participation.

The final step would be for the new shares to be issued based on each individual's proportion of total quota allocated. Quota allocations for future years would be based on the new shares only.

As a guide, Figure 2 shows possible outcomes of a days quota allocation based on the options above. Some of these include:

- For an <u>allocation based on current shareholdings only</u>, 237 FBs would be allocated a days quota in excess of their recent 3 year average. Ninety one FBs would need to acquire an additional 3,900 days (approximately) in total to reach their 3 year average.

The amount that each of those 91 FBs would need to buy would depend on their activity level. Generally, the more they fished, the more they would need to acquire.

- For an allocation using the 20/80 model, all FBs would receive an allocation above their 3 year average, however, the extra quota amount would differ from business to business.

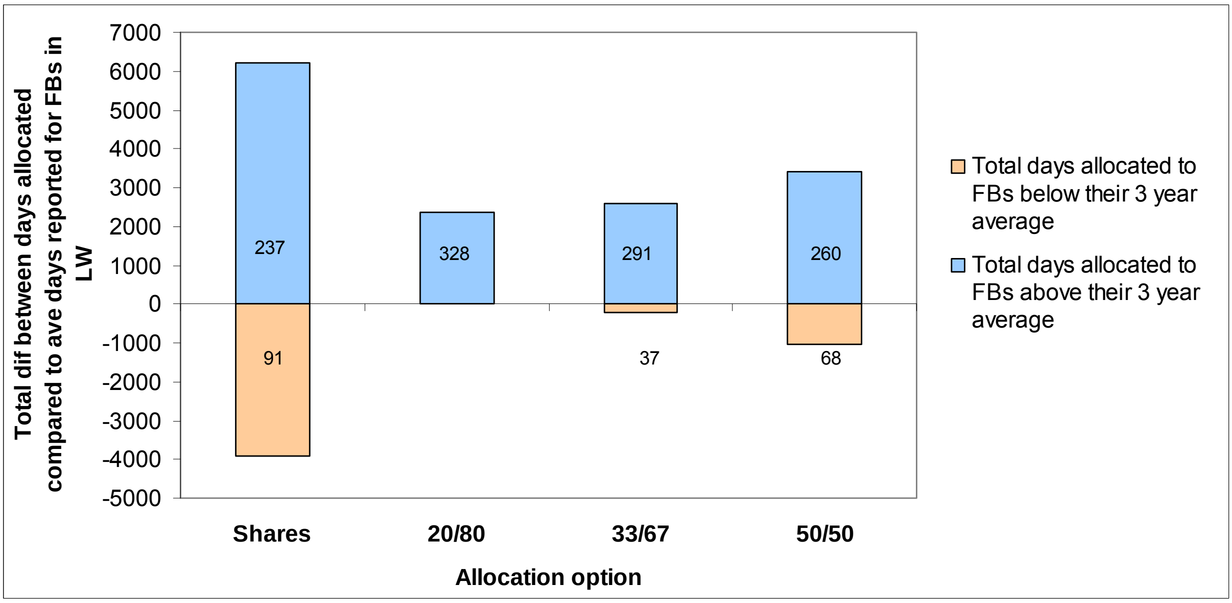

Figure 2. Possible outcome of a LW days regime using different allocation approaches

In relation to Figure 2, it is important to note the following:

- FBs have been used to determine the likely catch allocation; an alternative approach could be to use individual fishers;
- a recent 3 year period has been used for each FB to determine their likely catch allocation because previous catch reporting requirements means that it is not possible to determine the number of days fished in LW in each FB prior to 2009/10. Some other period could be used; and
- an average for each FB across those 3 years has been used to determine the proportion that each FB contributed to the total. Some other criteria could be used.

Minimum shareholding requirements

It is proposed that the existing minimum shareholding of 40 shares would continue to apply. That is, the shareholder would need to hold at least 40 LW shares in order to be able to fish any of the days quota allocated to that shareholder.

LW Option 2: Catch quota (individual transferable quota – ITQ) for kingfish

The option involves managing total catch of yellowtail kingfish using a consumable ITQ of kilograms in the LW sector of the OTLF. This is a direct way of managing catch for that species.

The catch quota could be allocated to FBs proportional to the number of shares held and based on either:

a) current shareholdings; or

b) new shares that are issued using a mix of current shareholdings and recent participation.

An ITQ system for kingfish could be used in conjunction with a days regime or under a stand-alone minimum shareholding system.

ITCAL determination

ITCALs have been determined in accordance with the methodology set out in the technical paper "*Setting the Interim Total Commercial Access Levels (ITCALs)*" available on the DPI website.

An industry-wide ITCAL has been calculated for kingfish. An industry-wide ITCAL has to be determined first because kingfish are reported as having been taken across multiple commercial fisheries, albeit in relatively small quantities in other fisheries. For kingfish it is proposed that the industry-wide ITCAL be set at the maximum weight reported as being landed in the 15 year period 1997/98 to 2011/12.

The apportionment of the industry-wide ITCAL to each fishery has been done using total catch of kingfish from each fishery over the same 15 year period. The allocation to each OTLF share class has been done using the years 2009/10 to 2011/12 as the new reporting arrangements implemented in 2009/10 has allowed DPI to determine the proportion of kingfish reported as landed in each line sector share class.

Table 5. Proposed ITCALs kingfish

Species	Industry-wide ITCAL (tonnes)	OTLF percentage of Industry-wide ITCAL	OTLF ITCAL (tonnes)	LW ITCAL (tonnes)
Kingfish	292.047	98.7%	288.349	281.126

LW Option 2a: Catch quota (ITQ) system for kingfish based on current shareholdings

Under this option the LW kingfish ITCAL is then allocated to shareholders relative to the current shareholdings (Table 6).

Table 6. Calculation of kingfish quota in LW based on current shareholdings

Species	LW ITCAL (tonnes)	Total LW shares	Quota (kg) per share	Quota (kg) per 40 shares
Kingfish	281.126	13,515	20.8	832

Minimum shareholding requirements

It is proposed that the existing minimum shareholding of 40 shares would continue to apply. That is, the shareholder would need to hold at least 40 LW shares in order to be able to fish any of the kingfish catch quota allocated to that shareholder.

Fishing periods and annual catch quota allocations

A fishing period is the period during which a shareholder can use his or her catch quota (kgs). The fishing period proposed for any species-based quotas considered within the OTLF is initially a 12 month fishing period commencing 1 July each year.

At the beginning of each fishing period, catch quota (kgs) would be issued to each shareholder, based on the ITCAL (or in the future the TACC) and the proportional number of 'kingfish species shares' held by each shareholder.

If the ITCAL/TACC increased or decreased in the future, the amount of catch quota allocated to each shareholder at the beginning of each fishing period would increase or decrease accordingly.

If catches in the fishery remained relatively stable, then a 2 year fishing period (with a TACE set for each year of the 2 years) could be considered to keep costs down.

How shareholders could use their quota and acquire additional quota

Information on the use of quota and how to acquire additional quota, along with how quota use will be monitored is provided in the general information paper "*General information relating to the reform program and reform options for the NSW commercial fisheries*".

LW Option 2b: Catch quota (ITQ) system for kingfish based on a mix of shareholdings and participation

This option involves:

- catch quota being determined using a mix of current shareholdings and recent participation;
- the creation of a new class of share – a 'kingfish' share class; and
- new shares issued to reflect the quota allocated to each FB.

The OTLSLWG considered a number of ways of allocating quota using shareholdings and recent participation. The three main models included:

- a 20/80 split (current shareholding/recent participation);
- a 33/67 split (current shareholding/recent participation); and
- a 50/50 split (current shareholding/recent participation).

The LW ITCAL for this option is the same as for LW Option 2a (Table 6).

Example of how this approach would work (using a 20/80 model):

Quota allocation where LW kingfish ITCAL = 281.13 tonnes.

20% = 56.23 tonnes, 80% = 224.90 tonnes

So, 56.23 tonnes (20%) of kingfish quota would be allocated to each FB based on the shares currently held (each share is worth 4.16 kg).

The 224.90 tonnes (80%) of kingfish would be allocated to each FB based on their recent participation (the proportion of catch they have contributed to the total catch). That is, their average annual reported landings of kingfish in the OTLF in the last 5 years from 2007/08 to 2011/12. Each FB then gets this proportion of the 224.90 tonnes.

To calculate the overall kingfish quota for each FB, the quota allocated based on current shareholdings is added to the quota allocated based on recent participation.

The final step would be for the new kingfish shares to be issued based on each individual's proportion of total quota allocated. Quota allocations for future years would be based on the new kingfish shares only.

As a guide, Figure 3 shows possible outcomes of kingfish quota allocation based on the options above. Some of these include:

- For an allocation based on current shareholdings only, 291 FBs would be allocated a quota in excess of their recent 5 year average. Thirty seven FBs would need to buy an additional 127 tonnes (approximately) in total to reach their 5 year average. The amount that each of those 37 FBs would need to buy would depend on their recent activity levels. Generally, the more they caught, the more they would need to acquire.
- For the 20/80 and 33/67 models, all FBs would receive an allocation above their 5 year average, however, the extra quota amount differs from business to business.

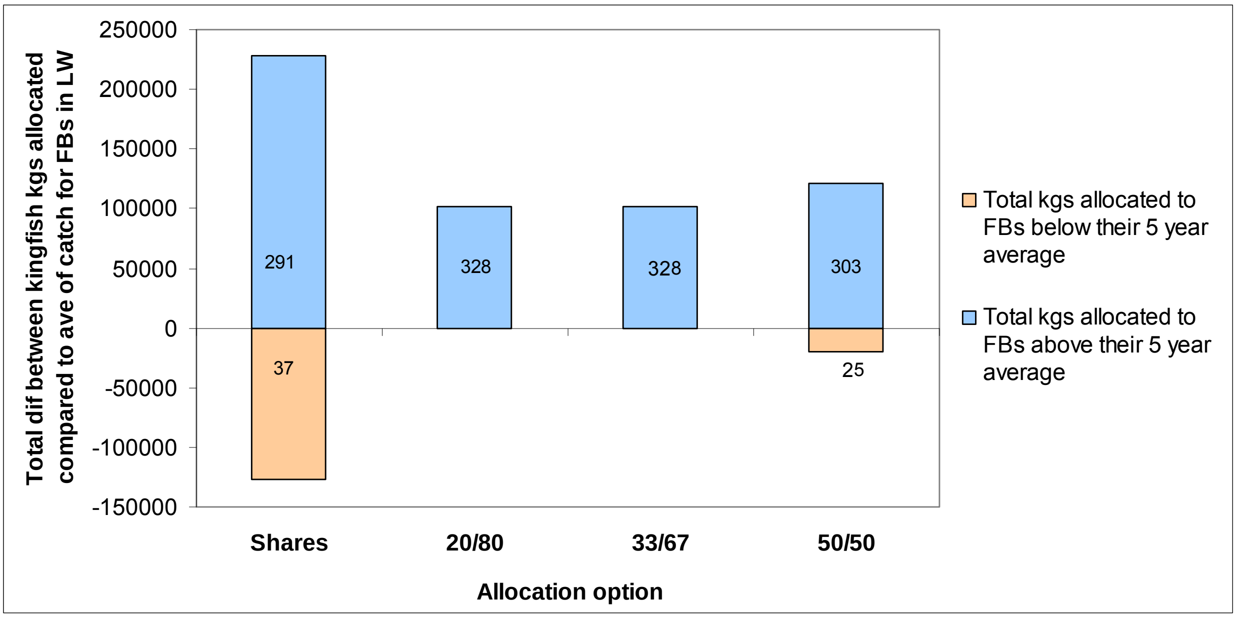

Figure 3 Possible outcomes of kingfish quota allocations using different allocation approaches

In relation to Figure 3, it is important to note the following:

- FBs have been used to determine the likely catch allocation; an alternative approach could be to use individual fishers;
- a recent 5 year period has been used for each FB to determine their likely catch allocation. Some other period could be used; and
- an average for each FB across those 5 years has been used to determine the proportion that each FB contributed to the total. Some other criteria could be used.

Minimum shareholding requirements

It is proposed that the existing minimum shareholding of 40 shares would continue to apply. That is, the shareholder would need to hold at least 40 LW shares in order to be able to fish any of the kingfish catch quota allocated to that shareholder.

How shareholders could use their quota and acquire additional quota

Information on the use of quota and how to acquire additional quota, along with how quota use will be monitored is provided in the general information paper "*General information relating to the reform program and reform options for the NSW commercial fisheries*".

Options for Line fishing eastern zone (LE)

Line fishing eastern zone options include managing the total catch by a consumable ITQ of kilograms for the following species in the LE sector of the OTLF:

- Bass groper;
- Blue-eye trevalla;
- Gemfish;
- Hapuku; and
- Pink ling.

The catch quota for each species could be allocated to fishing businesses (FBs) proportional to the number of shares held and based on either:

a) current shareholdings; or

b) new shares that are issued using a mix of current shareholdings and recent participation.

A catch quota regime is a direct way of managing catch.

ITCAL determination

ITCALs have been determined in accordance with the methodology set out in the technical paper "*Setting the Interim Total Commercial Access Levels (ITCALs)*" available on the DPI website.

Industry-wide ITCALs have been calculated for these species because each is reported as having been taken across multiple commercial fisheries, albeit in relatively small quantities.

The industry-wide ITCALs for bass groper and hapuku are proposed to be set at the maximum weight reported as being landed in the 15 year period 1997/98 to 2011/12. However, gemfish is recruitment overfished and there is some concern over the eastern stocks of both pink ling and blue-eye trevalla. Therefore, a more conservative ITCAL has been proposed for these latter species by using the maximum weight reported as being landed in the 5 year period 2007/08 to 2011/12.

The industry-wide ITCALs have then been apportioned to each fishery, based on 15 year averages for bass groper and hapuku and 10 year averages for blue-eye, gemfish and pink ling. The allocation of the fishery-wide ITCAL to each OTLF share class has been done using data from the years from 2009/10 to 2011/12 as the new reporting arrangements implemented in 2009/10 enable DPI to determine the proportion of these species reported as landed in each line sector share class.

Table 7. Proposed ITCALs for selected species in the LE sector

Species	Industry-wide ITCAL (tonnes)	OTLF percentage of industry-wide ITCAL	OTLF ITCAL (tonnes)	LE ITCAL (tonnes)
Bass groper	10.501	97.7	10.262	9.316
Blue-eye trevalla	51.140	99.7	50.976	46.582
Gemfish	20.228	93.8	18.971	17.796
Hapuku	15.025	97.7	14.676	13.063
Pink ling	48.352	97.3	47.048	46.597

LE Option 1a: Catch quota (ITQ) for selected species based on current shareholdings

Under this option the LE ITCAL for bass groper, blue-eye trevalla, gemfish, hapuku and pink ling is then allocated to shareholders relative to the current shareholdings (Table 8).

Table 8. Calculation of selected species quota in LE

Species	LE ITCAL (tonnes)	Total LE shares	Quota (kg) per share	Quota (kg) per 40 shares
Bass groper	9.316	3220	2.89	115.6
Blue-eye trevalla	46.582	3220	14.47	578.8
Gemfish	17.796	3220	5.53	221.1
Hapuku	13.063	3220	4.06	162.4
Pink ling	46.597	3220	14.47	578.8

Minimum shareholding requirements

It is proposed that the existing minimum shareholding of 40 shares would continue to apply. That is, the shareholder would need to hold at least 40 LE shares in order to be able to fish any of the selected species catch quota allocated to that shareholder.

Feedback requested (in addition to comments on options)

An option that has been put forward for LE that could work in conjunction with a catch quota regime is that an additional 40 shares could give shareholders access to 1,200 additional hooks (i.e. in excess of the existing 1,200 maximum hook limit).

How shareholders could use their quota and acquire additional quota

Information on the use of quota and how to acquire additional quota, along with how quota use will be monitored is provided in the general information paper "*General information relating to the reform program and reform options for the NSW commercial fisheries*".

LE Option 1b: Catch quota (ITQ) system for selected deepwater species based on a mix of shareholdings and participation

This option involves:

- catch quota being determined using a mix of current shareholdings and recent participation;
- the creation of five new classes of share for 'bass groper', 'blue-eye trevalla', 'gemfish', 'hapuku' and 'pink ling'; and
- new shares issued to reflect the quota allocated to each FB.

The OTLSLWG considered a number of ways (models) of allocating quota using shareholdings and recent participation. The three main models included:

- a 20/80 split (current shareholding/recent participation);
- a 33/67 split (current shareholding/recent participation); and
- a 50/50 split (current shareholding/recent participation).

The LE ITCALs for each species in this option are the same as for LE option 1a above (Table 7).

<u>Example of how this approach would work with blue-eye trevalla (using a 20/80 model):</u>

Quota allocation where LE blue-eye ITCAL = 46.582 tonnes.

20% = 9.32 tonnes, 80% = 37.26 tonnes

So, 9.32 tonnes (20%) of blue-eye quota would be allocated to each FB based on the shares currently held (each share is worth 2.89 kg).

The 37.26 tonnes (80%) of blue-eye would be allocated to each FB <u>based on their recent participation</u> (proportion of catch they have contributed to the total catch). That is, their average annual reported landings of blue-eye in the OTLF in the last 5 years from 2007/08 to 2011/12. Each FB then gets this proportion of the 37.26 tonnes.

To calculate the overall blue-eye quota for each FB, the quota allocated based on current shareholdings is added to the quota allocated based on recent participation.

The final step would be for the new blue-eye shares to be issued based on each individual's proportion of total quota allocated. Quota allocations for future years would be based on the new blue-eye shares only.

As a guide, Figures 4-8 below show possible outcomes for the different quota/share allocation approaches for each species.

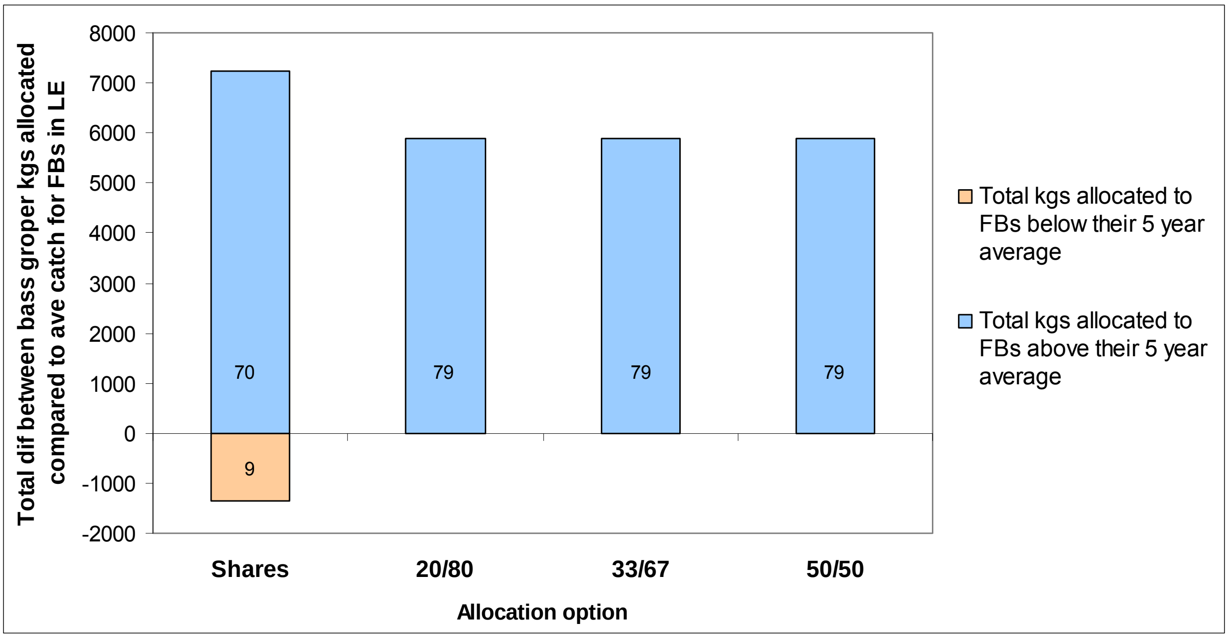

Figure 4. Possible outcomes of bass groper quota allocations using different allocation approaches

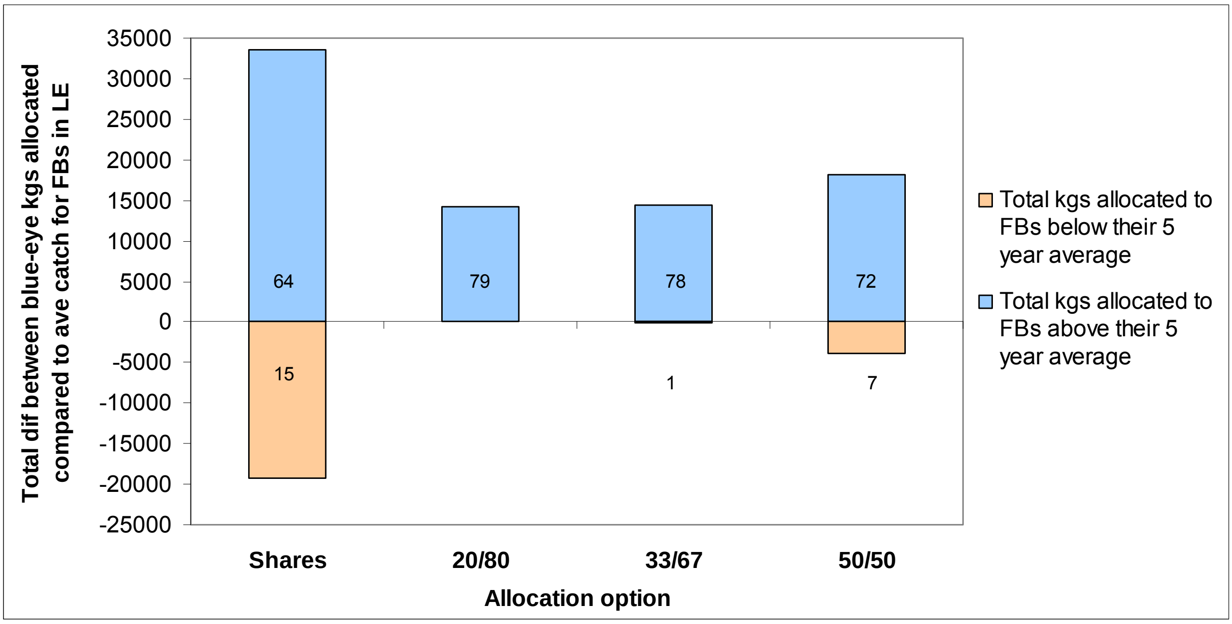

Figure 5. Possible outcomes of blue-eye trevalla quota allocations using different allocation approaches

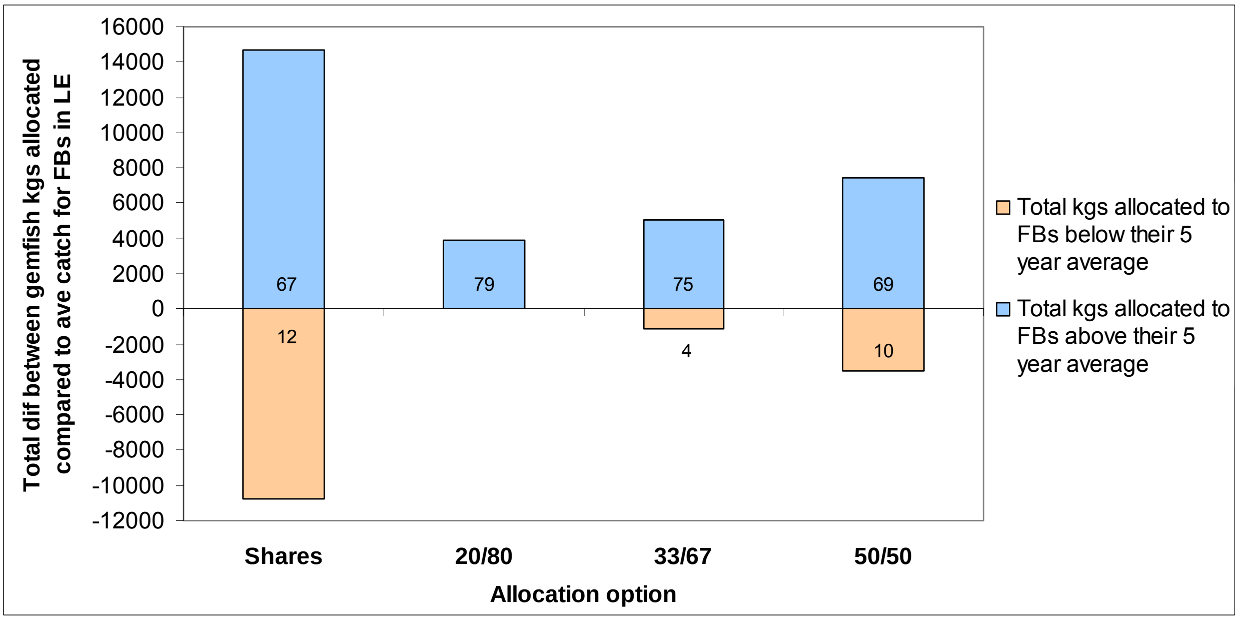

Figure 6. Possible outcomes of gemfish quota allocations using different allocation approaches

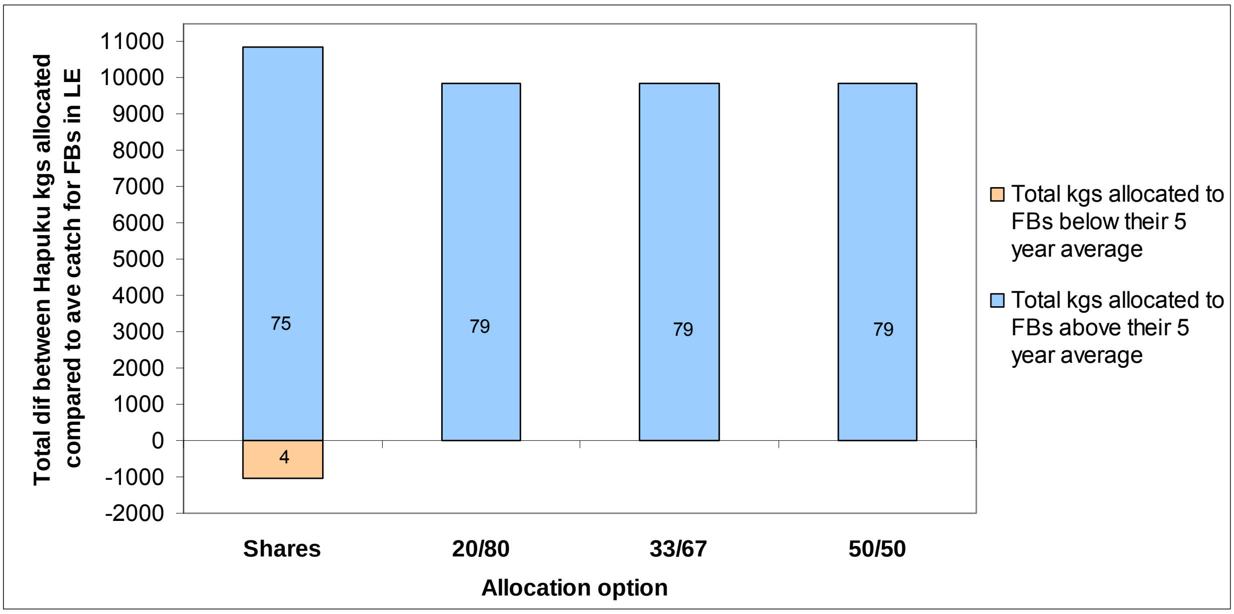

Figure 7. Possible outcomes of hapuku quota allocations using different allocation approaches

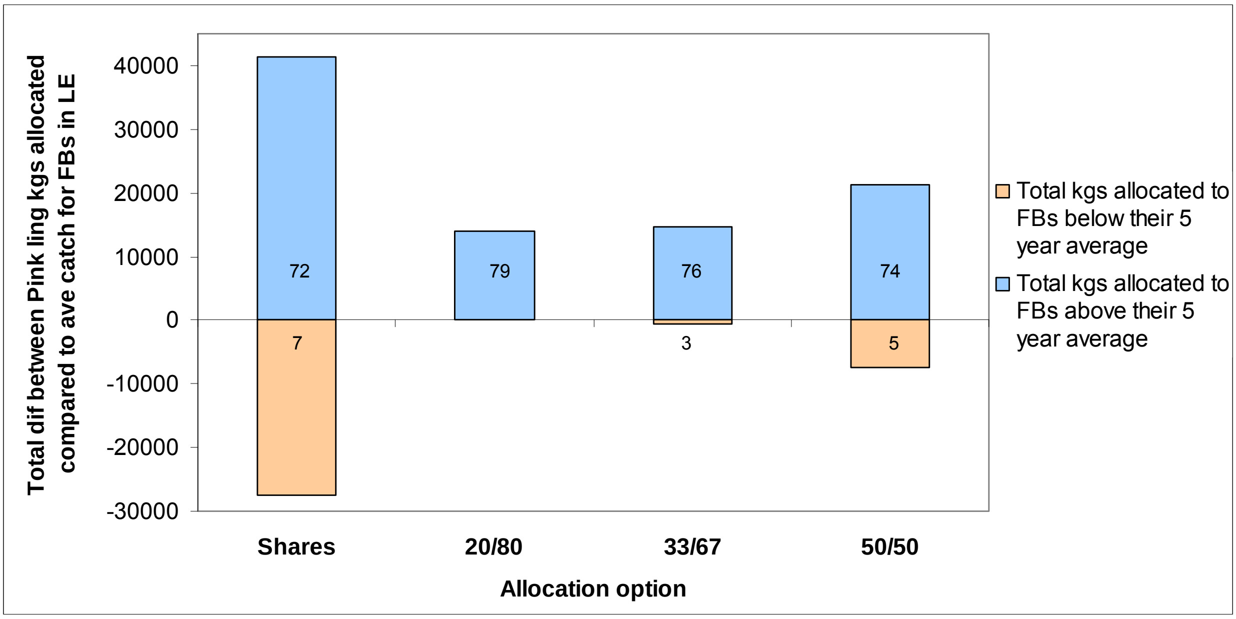

Figure 8. Possible outcomes of pink ling quota allocations using different allocation approaches

In relation to Figures 4 - 8, it is important to note the following:

- FBs have been used to determine the likely catch allocation; an alternative approach could be to use individual fishers;
- a recent 5 year period has been used for each FB to determine their likely catch allocation. Some other period could be used; and
- an average for each FB across those 5 years has been used to determine the proportion that each FB contributed to the total. Some other criteria could be used.

Minimum shareholding requirements

It is proposed that the existing minimum shareholding of 40 shares would continue to apply. That is, the shareholder would need to hold at least 40 LE shares in order to be able to fish any of the selected species catch quota allocated to that shareholder.

How shareholders could use their quota and acquire additional quota

Information on the use of quota and how to acquire additional quota, along with how quota use will be monitored is provided in the general information paper "*General information relating to the reform program and reform options for the NSW commercial fisheries*".

OTLF Option: Managing endorsement numbers (minimum shareholdings)

This option involves actively managing the number of endorsements in each sector of the fishery. The proposal to manage endorsement numbers involves:

1. identifying a **target number of endorsements** for each share class, and
2. **increasing the minimum shareholding** requirements in two-stages over the short to medium term to reduce the number of endorsements in each sector.

Managing endorsement numbers is achieved by applying minimum shareholding requirements that must be satisfied if a shareholder is to remain eligible for an endorsement to fish in the relevant sector. To streamline administration and minimise costs, DPI proposes a consistent approach to implementing this option across all fisheries where it is proposed (e.g. aligning the timing). The following approach is proposed for the OTLF:

Target number of endorsements under a stand-alone minimum shareholding option

Since no defined proposal using endorsement numbers was discussed with the OTLSLWG, the following is presented as a guide for stakeholders to use in making a submission on minimum shareholdings as a stand-alone linkage option.

To be consistent with options outlined for other fisheries, the target number of endorsements is proposed based on the number of fishers who contributed to 97% of Gross Value of Production (GVP) in each share class over the three year period 2009/10 to 2011/12. The more conservative 95% GVP figures are not proposed for the OTLF in recognition that there are few current restrictions that can be modified and removed which could result in increased fishing efficiency in these sectors.

Table 9. Current number of shareholders & endorsements & proposed target number of endorsements

Share class	Current number of shareholders	Current number of endorsements	Proposed target number of endorsements	
			95%	**97%**
Demersal fish trapping	205	187	64	**73**
Line fishing western zone	334	303	149	**168**
Line fishing eastern zone	79	77	33	**38**

Proposed minimum shareholdings

If this option was to be pursued, a staged-approach would be proposed, involving increasing minimum shareholdings in two steps:

i) a larger increase to the minimum shareholdings (e.g. 80% of the proposed minimum) around the time of the exit grant process; and

ii) a smaller increase (the remaining %) approximately 12 months later.

The staged-approach aims to reduce the initial financial burden on shareholders and the timing of the initial increase aims to capitalise on the lower market price for shares expected around the time of the exit grant program.

To minimise the financial burden on active shareholders without compromising the proposed maximum endorsement numbers, the minimum shareholding requirements in other fisheries have been adjusted down slightly using a standard formula (refer to the "*Setting the Interim*

Commercial Access Levels (ITCALs)" technical paper). This formula does not work effectively in the OTLF and so an alternative approach is suggested. The alternative approach involves setting aside 5% of the total shares in the share class and then dividing the remaining shares by the target number of endorsements. Table 10 includes the resulting minimum shareholding levels and the timing proposed.

Table 10. Summary of proposed minimum shareholding requirements under this OTLF option

Share class (total no. of shares)	Current minimum shareholding	Minimum shareholding to be satisfied by 1 July 2015	Minimum shareholding to be satisfied by 1 July 2016
Demersal fish trap (8,180)	40	85	106
Line fishing western zone (13,515)	40	61	76
Line fishing eastern zone (3,220)	40	64	80

<u>Example of how the proposed minimum shareholdings have been calculated under this OTLF option:</u>

There are 8,180 FT shares in total. After deducting 5% (409), 7,771 shares remain.

The target number of endorsements is 73, so 7,771 ÷ 73 = 106.45 shares.

Rounded down, 106 shares would be set as the minimum shareholding level.

The 409 shares that were removed from the calculations at the start are still available within the fishery. In fact, these shares, plus the extra shares available due to rounding down the minimum shareholding, would mean that 442 surplus shares would be available. This could mean a small number of additional endorsements could be created over and above the target number (which is why it's labelled a "target" and not a "maximum"), but the likelihood of this occurring is low as some shareholders have traditionally, and are likely to continue to, hold more shares than the minimum level.

<u>Feedback requested</u>: (in addition to comments on options)

As well as providing comments in your submission on the suitability of a stand-alone minimum shareholding regime, please provide specific feedback on the following:

1. Whether using 97% GVP values are appropriate for setting the target maximum numbers of endorsements.
2. Whether a two stepped approach to minimum shareholding increases is preferred over one direct jump to the new minimum shareholding requirement at 1 July 2015.
3. There are also possibilities under this option to link blocks of shares (over and above whatever minimum shareholding level applies) with blocks of additional gear – e.g. a block of an additional 40 FT shares could give the shareholders access to 10 additional traps; or, a block of additional 40 LE shares could give the shareholder access to 1,200 additional hooks.

Potential changes to current restrictions

Each of the reform options presented above is coupled with potential changes to current restrictions or controls, forming the overall reform packages for consideration. Once linkages are in place, some controls can be removed to improve operational efficiency and profitability, and to reduce red tape and associated costs. There are fewer existing restrictions in the OTLF which fall into this category compared with other fisheries.

Scope to amend or remove the majority of current management arrangements is generally dependent on the form and strength of the linkage arrangements that will be implemented.

Table 11 identifies the potential changes associated with each of the reform options (indicated by ticks). Stronger linkage options (catch quota) include more controls for potential removal than weaker options (minimum shareholdings). A tick associated with a proposal indicates a higher likelihood that the proposal could be implemented. Absence of a tick indicates a lower likelihood that the proposal could be implemented with the reform option indicated.

Table 11: Potential changes to current management arrangements

Potenital changes to current management arrangements for consideration with relevant reform options	Reform Options (FT)	Reform Options (LW)	Reform Options (LE)	Reform Option (Min shares)
Maximum shareholdings: The current default maximum shareholding of 40% of the shares in the fishery is ineffective and proposed to be removed on the basis that there is negligible to nil risk of a monopoly in the relatively small scale fisheries in NSW.	✓	✓	✓	✓
Foreign ownership restrictions: Remove the restrictions on foreign ownership of shares on the basis that there is negligible to nil risk of significant foreign ownership of the relatively small scale fisheries in NSW.	✓	✓	✓	✓
Banded rockcod daily limit: Removal of the daily limit for Banded rockcod for holders of a LW endorsement that is used in waters north of latitude 29°15′S by fishers who do not also hold a LE endorsement.	N/A	✓	N/A	✓ for LW
OG1 notations: Subject to what transpires in other fisheries, consideration would be given to removing OG1 notations from boat licences given that, if fishers have the appropriate endorsement and shares which define their level of access, they should be able to fully utilise that endorsement without a restriction being placed on the boat used. Any concern of increased fishing pressure in certain waters could be managed through the future TACC/TACE regime. (Note that the OTLSLWG advised that OG1s should be retained because of their value when traded and as an effort control)	✓	✓	✓	✓
Boat length limit: Most, if not all, fisheries are seeking feedback on the use of boat limits in their fisheries. A 16 m maximum boat size limit applies in the OTLF. Under a catch quota system, an increased or removed boat size limit could assist in efficiency as larger boats could be used to catch a defined quota. However, since effort quotas are also proposed for most OTLF share classes, the relaxation or removal of boat size limits may not be appropriate.			✓	
Gemfish 50kg trip limit: it is proposed that if gemfish were quota managed in the OTLF and the ITCAL set at levels commensurate with landings since the 50 kg trip limit was introduced, the trip limit could be removed.			✓	

Comparison of reform options presented

To assist industry in considering the options and providing feedback, a number of advantages and disadvantages have been identified by DPI and the SLWGs (including the OTLSLWG) as being associated with the linkage options presented, these are outlined in the tables below (Table 12, 13, 14 and 15).

FT and LW days allocated *based on current shareholdings*

The following advantages and disadvantages associated with linking shares to fishing effort, in the form of a days regime, have been identified.

Table 12. Advantages and disadvantages associated with a days regime in FT and LW allocated based on current shareholdings

Advantages	Disadvantages
Shareholders invest autonomously.	Could have severe impacts on operators whose activities focus heavily on these share classes.
Shareholders can customise their shareholdings to suit their preferred access levels and fee liability – this will be particularly important for diversified fishers with diverse shareholdings.	Costs more to implement than a minimum shareholding scheme – because of the creation of a new share class, modifications needed to FishOnline and additional reporting requirements.
Enhanced security of access. The market-based system proposed means: • competing shareholders cannot simply increase effort by working more – they must invest in shares to do so. • shareholders have a direct link between their shares and their access – the more shares you hold, the more days you can fish in these share classes.	For a days regime, cannot be used to respond to species-specific sustainabilty or resource sharing issues: • Competition with other stakeholder groups for high profile species will continue. • Opposition to changes from other sectors will continue. • Government may need to default to crude controls (e.g. closures, size limits, trip limits etc.) that sometimes deliver perverse outcomes such as loss of access and discarding etc. or direct controls such as species specific catch quotas.
If an ITCAL (or in the future a TACE) had to be reduced for viabilty, sustainabilty or resource sharing reasons, it would: • have a more direct and immediate effect on effort levels – compared to increasing minimum shareholdings; • affect all shareholders proportionally, not just those at or near the minimum shareholdings.	
Contributes towards higher asset (i.e. share) values – because of the above.	
Improved control over total catch from the fishery.	
Improved community confidence that total effort cannot increase and can be managed if a high level resource sharing or industry viability issue were to arise.	

Species catch quotas allocated *based on current shareholdings*

The following advantages and disadvantages associated with linking shares to species-specific catch quotas have been identified.

Table 13. Advantages and disadvantages associated with species specific quota allocations based on shareholdings

Advantages	Disadvantages
Strongest form of linkage since ITQs directly secure a share of a relevant stock. Shareholders can concentrate on catching their quota as efficiently as they can (i.e. at least cost) rather than the current system of racing to catch fish before someone else does.	The major disadvantage is that these options could have severe impacts on operators whose activities focus heavily on these share classes, with some active fishers having to acquire more than 10 times their current shareholding level in order to match their level of activity in recent years.
Shareholders invest autonomously and can customise their shareholdings to suit their preferred access levels and fee liability.	Costs more to implement than a minimum shareholding scheme – because of the creation of a new class of share, additional reporting requirements and monitoring/compliance.
Enhanced security of access. The market-based system proposed means: • competing shareholders cannot simply increase catch by working more – they must invest in shares to acquire additional quota. • shareholders have a direct link between their shares and their access – the more shares you hold, the more quota you have.	May result in the discarding of marketable fish (including through high-grading), although allowing the transfer of quota can help to minimise this issue.
Eliminates the issue of latent effort impacting shareholders who rely heavily on access to a quota species.	
If an ITCAL (or in the future a TACC) is reduced for viabilty, sustainabilty or resource sharing reasons, it would: • have a direct and immediate effect on catch levels compared to increasing minimum shareholdings under the alternative reform package. • affect all shareholders proportionally, not just those at or near the minimum shareholdings. • not necessarily result in shareholders being excluded from the fishery, as per the stand-alone minimum shareholding option.	
Complements Commonwealth management arrangements for some shared species	
Improved community confidence that the fishery is operating at sustainable levels and that catches of quota species can be effectively managed if a sustainability issue were to arise. This may also lead to greater community and government support (i.e. an improved ‘social licence’ for changes that may benefit the fishery).	
Contributes towards optimum asset (i.e. share) values – because of the above.	

Days quota in FT and LW and catch quota in LW and LE allocated *based on shareholdings and recent participation*

The following advantages are in addition to those presented above in Tables 12 & 13 and alleviate some of the disadvantages. However, there are additional disadvantages due to the use of recent participation in the allocation process.

Table 14. Advantages and disadvantages associated with a days allocation in FT and LW and catch quota in LW and LE based on shareholdings and recent participation

Advantages	Disadvantages
The major advantage is that the use of recent participation helps to redress the distortion in these share classes because fishers would receive an allocation of days or catch quota that more closely reflects their recent fishing effort/catch levels.	There is likely to be significant debate about the criteria to use for allocating shares in the new share classes (% of current shares versus recent participation, criteria years, etc.), and The protracted uncertainty could be a cause for concern for some shareholders.
Should satisfy high activity operators, particularly where the cost to buy shares is otherwise high (which would depend on the number of shares required to maintain current access, the market value of those shares and the success of the exit grant process).	Assessing recent participation will be time consuming, resource intensive and costly. In addition to the costs associated with the share allocation process, additional costs will be incurred if validation of the catch and effort records is needed before the preliminary allocation process.
Opportunity to pursue stronger linkage options rather than defaulting to weaker linkage options (i.e. minimum shareholdings).	Upon commencement of the exit grant process, definitive advice would not be available on the shares/quota that each shareholder will be eligible for.
Reduced risk of production loss compared with if current shareholdings were used and a number of active fishers exited within a short period of time.	May unfairly advantage shareholders who have over-reported or fished illegally (e.g. used excess gear) in recent years.
	Would disadvantage shareholders who have the minimum shareholding now but who have very low/no recent participation due to extenuating circumstances or recent investment.
	Risk of legal challenge if a shareholder is not satisfied with the shares allocated and perceive their existing property rights to have been devalued.

Managing endorsement numbers (minimum shareholdings)

Table 15. Advantages and disadvantages associated with managing endorsement numbers using minimum shareholdings

Advantages	Disadvantages
The cheapest way (administratively) to link shares to resource access.	Shareholders are forced to invest from time to time, rather than autonomously.
A very direct and effective tool for delivering market-based adjustment to an agreed level.	Total investment can be significant, particularly for those with diverse shareholdings.
Reduces (but does not eliminate) the risk of inactive endorsements re-entering the fishery.	Limits opportunity to customise shareholdings to suit preferred access levels and fee liability.
	Little additional security of access within the fishery and cannot be used to respond to species-specific sustainabilty or resource sharing issues: • Competition within the fishery for high profile species (e.g. kingfish) will continue. • Government may need to default to crude controls (e.g. closures, size limits, trip limits etc.) that sometimes deliver perverse outcomes such as loss of access and discarding etc. or direct controls such as species specific catch quotas.
	If total effort needs to be reduced for viabilty, sustainabilty or resource

Advantages	Disadvantages
	sharing reasons, increasing the minimum shareholding requirements would be one of the few options available to the fishery, noting: • The minimum shareholding requirements may need to be increased significantly to remove all latent effort and then some active effort. • Overall industry disruption would be greater than under a catch or effort quota, because under a quota, catch and effort is addressed directly and each and every shareholder incurs a proportional reduction in quota (and has option to re-invest or not).
	Optimum asset (i.e. share) values are unlikely to be realised, because of the above disadvantages.

Management costs

The costs associated with each of the options are difficult to determine given that a large number of factors will influence them. An indication has been provided of the relative costs of the options in the advantages and disadvantages tables above. Refer to the general information paper for further information about estimating management costs.

Appendix 1: Overview of the NSW Ocean Trap and Line Fishery

The Ocean Trap and Line Fishery (OTLF) operates in NSW ocean waters between the Queensland and Victorian borders. The fishery extends east to the 4,000 m depth contour (approx. 60 - 80 nautical miles from the coastline).

The fishery, like many others, is subject to a vast array of closures to trap and/or line activities, some of which are as a result of the comprehensive network of State Marine Parks and Aquatic Reserves and Commonwealth Marine Reserves off NSW.

There are three primary sectors to the OTLF: the trap sector, line sector, and spanner crab sector:

- The trap sector (discussed in this paper) uses traps in ocean waters that are designed to catch fish and minimise bycatch.
- The line sector is divided into three sectors – line fishing western zone (discussed in this paper), line fishing eastern zone (discussed in this paper), and school and gummy shark sector (discussed in a separate paper) – and uses lines (multiple types in many configurations) to catch a wide variety of species.
- The spanner crab sector (northern and southern zones) (discussed in a separate paper) uses nets specifically designed to target spanner crabs in waters north of Hat Head.

The major species taken in the OTLF include snapper, yellowtail kingfish, leatherjackets, bonito, silver trevally, blue-eye trevalla, pink ling, yellowfin bream, sharks, and spanner crabs. These species may be important because they are taken in large volumes or because they are of high market value.

The OTLF produces around 1,700 tonnes of high quality seafood annually valued at around $12M at the point of first sale.

Since 2007 the fishery has been actively restructuring by periodically applying new minimum shareholding requirements – which are used to determine shareholders' eligibility to endorsements in the fishery. Despite this there remains significant overcapacity (i.e. inactive endorsements or shares), partially because of increasing input costs (e.g. fuel) and because many of the operations are specialised in nature that require a high level of expertise to remain viable.

Table 1 shows the current number of shareholders and endorsements in each OTLF share class. Figures 1 – 3 show the numbers of shares held by shareholders in each of the share classes which are the subject of this options paper.

Table 1 Current numbers of shareholders

Share class	Number of shareholders	Number of endorsements
Demersal fish trap	205	187
Line fishing western zone	334	303
Line fishing eastern zone	79	77
School gummy shark	20	17
Spanner crab (northern zone)	30	29
Spanner crab (southern zone)	9	9

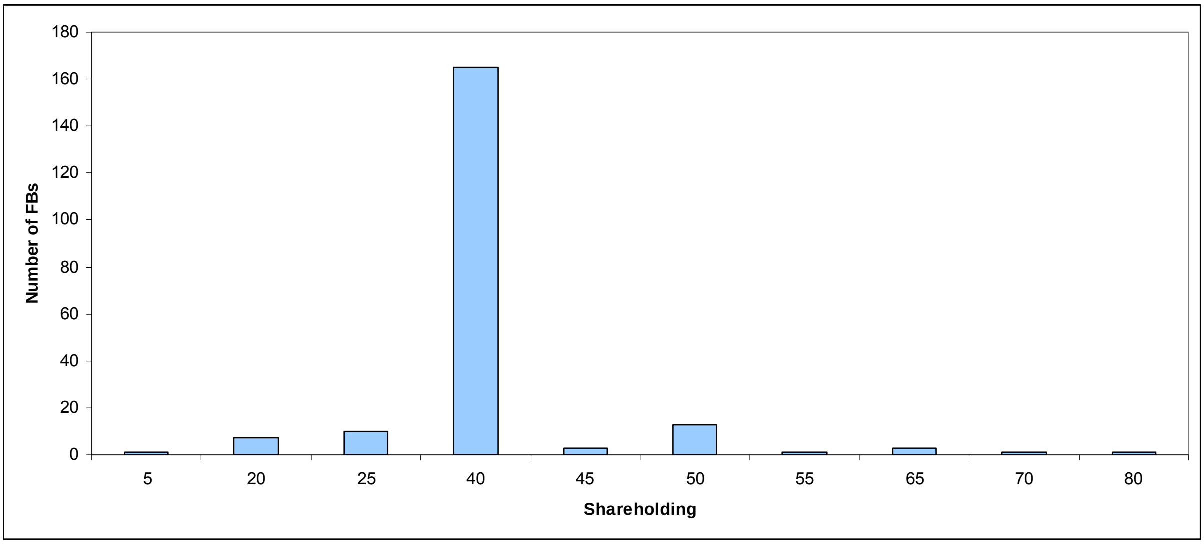

Figure 1 Demersal fish trap shareholding distribution.

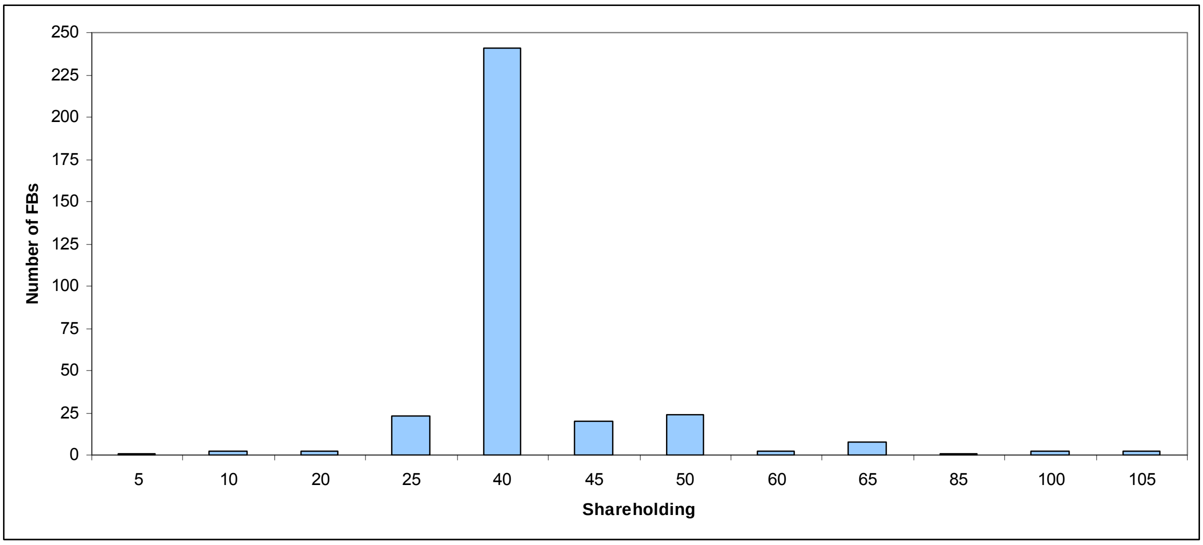

Figure 2 Line fishing western zone shareholding distribution

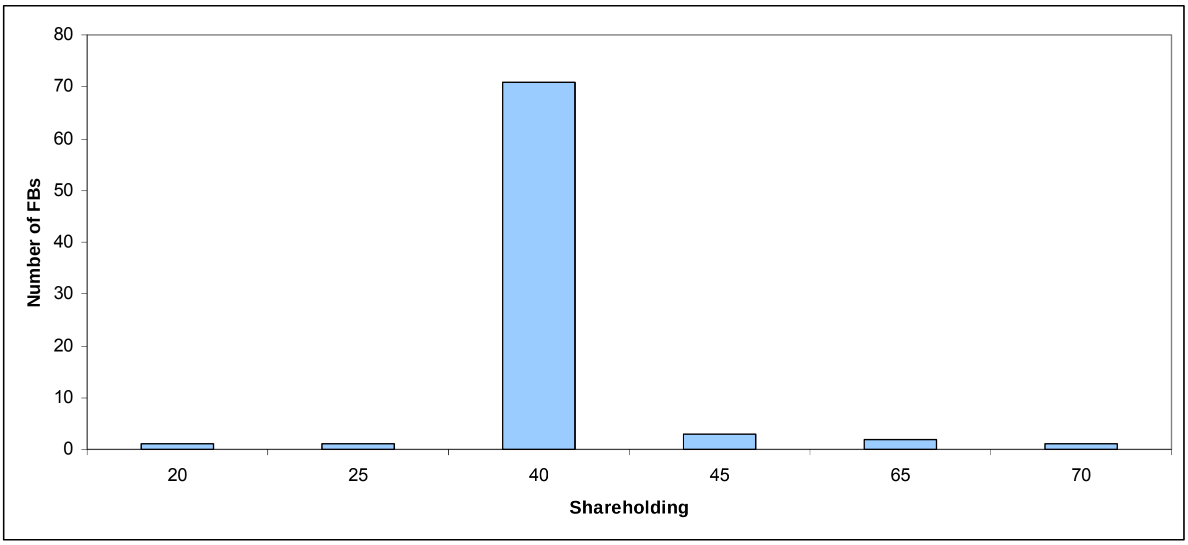

Figure 3 Line fishing eastern zone shareholding distribution

Appendix 2: Variations considered

Options considered but not progressed for FT

Suggestions to use trap numbers as a means to link effort to shares was also considered. The current reporting arrangements indicate the number of trap lifts that occurred within the day fished, rather than the number of traps that the fisher actually uses. Furthermore, the current minimum shareholding allows for a maximum of 30 traps to be used. There are few fishers who use more than that. As a result, DPI does not have the required information to determine what the current trap usage is in the fishery so cannot model this option, and the level of restructuring would be unknown. There would also be additional compliance requirements/costs that would be needed for this option as there would be a greater level of on-water compliance to ensure trap usage corresponded to specifically shareholdings.

Options considered but not progressed for LE species quotas

The OTLSLWG also considered a basket quota (kg) system for the future management of bass groper, blue-eye trevalla, hapuku and pink ling in this sector of the OTLF. This option was not pursued in this paper for the following reasons:

- An appropriate ITCAL could not be determined. It may seem appropriate to add up all the individual species quotas and set this total as the ITCAL. However, theoretically, the entire ITCAL could be consumed by the catch of only one of those species; and
- There is some concern over the east coast stocks of blue-eye and pink ling. It is likely that, in the foreseeable future, these species may need to have individual quotas placed on them which would complicate the basket quota system.