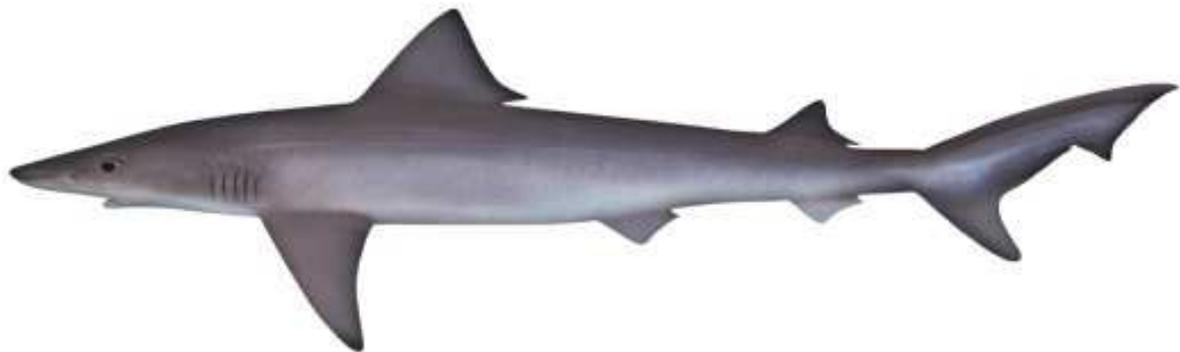




PUBLIC CONSULTATION PAPER:

Reform options for the school and gummy shark component of the NSW Ocean Trap and Line Fishery



Published by the NSW Department of Primary Industries

Public consultation paper: Reform options for the school and gummy shark component of the NSW Ocean Trap and Line Fishery

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More information

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

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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (March 2014). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user's independent adviser.

Readers guide

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

Anyone with an interest in this share class 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 “ <i>General information relating to the reform program and reform options for the NSW commercial fisheries</i> ”
Fisheries options papers	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.
This paper you are reading	
Technical paper	A separate paper has been prepared detailing how the proposed total catch/effort levels have been calculated. The paper is titled “ <i>Setting the Interim Total Commercial Access Level (ITCALs)</i> ”.
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 school and gummy paper provides 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.

The Ocean Trap and Line Fishery submission form should be used by those wishing to comment on the school and gummy shark component of the fishery.

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 (for OTLF) 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 2012¹ 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 school and gummy shark component of the Ocean Trap and Line Fishery (OTLF) is a separate share class that only allows for the taking of school sharks and gummy sharks south of Moruya (in general terms). Only a small proportion of shareholders actively participate in this sector.

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 school and gummy shark shareholders 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 school and gummy shark shareholders 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 school and gummy shark shareholders) webpage: www.dpi.nsw.gov.au/fisheries/commercial/consultation/commercial-fisheries-working-groups/school-and-gummy-shark-share-linkage

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

Acronyms

DPI	NSW Department of Primary Industries
GVP	Gross Value of Production ²
ITCAL	Interim Total Commercial Access Level
SARC	Structural Adjustment Review Committee
SLWG	Share Linkage Working Group
TACC	Total Allowable Commercial Catch
TACE	Total Allowable Commercial Effort

² GVP – Limited to first point of sale only and calculated using Sydney Fish Market average prices.

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Introduction

The NSW Ocean Trap and Line Fishery (OTLF) includes six share classes, however, this options paper covers only one of these, the school and gummy shark share class.

This paper seeks your feedback on two primary reform options for the school and gummy shark share class, these include:

- **Option 1:** a gummy shark catch quota regime where quota is issued based on either:
 - a) shareholdings, or
 - b) a mix of shareholdings and participation

- **Option 2:** a minimum shareholding regime for school and gummy shark.

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

The ability to implement the potential changes to current restrictions generally increases 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 industry 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.

Option 1: Species catch quota – gummy sharks

This option involves managing the gummy sharks taken in the school and gummy shark component of the NSW Ocean Trap and Line Fishery (OTLF) by species catch quota.

The quota would be allocated to fishing businesses either:

- a) proportional to the number of shares held (based on shareholdings); or
- b) based on shareholdings and recent participation (involving the creation of a new ‘gummy shark’ share class).

Note that gummy sharks are taken in other share classes within the OTLF, and in share classes in other fisheries. For the integrity of the catch quota regime to be maintained, consideration may be required on the following options:

- managing the species by catch quota across all share classes across all fisheries;
- applying a catch cap in any other share class with additional trip limits etc if needed.

Gummy sharks are also managed by a catch quota system in Commonwealth fisheries. If a catch quota is implemented in NSW, future consideration will need to be given to any cross-jurisdictional resource sharing issues.

Proposed ITCAL determination

An Interim Total Commercial Access Level (ITCAL) is the maximum amount of catch that may be of the target species (gummy sharks) over a fishing period. It operates like a Total Allowable Commercial Catch (TACC). Information on how the ITCALs have been set and on future transitioning to TACCs is available in general information paper and the technical paper “*Setting the Interim Total Commercial Access Levels (ITCALs)*” paper on the DPI website.

The gummy shark ITCAL has been determined by using the highest reported recent catch level for gummy sharks over the 15 year period 1997/98 and 2011/12. Based on this approach the NSW industry wide ITCAL proposed for gummy sharks is 52.7 tonnes (Table 1).

The industry-wide ITCAL for gummy sharks has then been apportioned to each fishery.

The apportionment to each fishery has been done using total catch of gummy shark from each fishery over the same 15 year period. The allocation to each OTLF share class has been done using the three more recent years 2009/10 to 2011/12 as the new reporting arrangements implemented in 2009/10 has allowed DPI to determine the proportion of gummy shark landed in each line sector share class.

Table 1. NSW ITCAL and proposed gummy shark ITCAL for the S&G share class

Industry ITCAL (tonnes)	OTLF percentage of industry ITCAL	OTLF proportional catch (tonnes)	S&G ITCAL (tonnes)
52.7	62.4%	32.872	25.691

Two methods for the allocation of quota are presented here. These include:

- an allocation proportional to the existing shares held (Reform option 1a), or
- an allocation using a mixture of existing shareholdings and recent participation (Reform option 1b).

Option 1a: Catch quota for gummy sharks based on shareholdings

Under this option, if the school & gummy shark (S&G) ITCAL was allocated amongst shareholders proportional to the number of shares held, the gummy shark quota issued per share (Table 2) and per shareholding (Table 3) would be as follows:

Table 2: Calculation of quota per share for gummy sharks in the S&G share class

Species	S&G ITCAL (tonnes)	Total shares	Quota (kgs) per share
Gummy sharks	25.691	765	33.6

Table 3: Calculation of gummy shark quota per shareholding for the S&G share class

Shareholding	Quota (kgs)
20	672
25	840
40	1,344
45	1,512
50	1,680
80	2,688

Refer to the “*General information relating to the reform program and reform options for the NSW commercial fisheries*” for further detail relating to monitoring, and to the technical paper “*Setting the Interim Total Commercial Access Levels (ITCALs)*” for additional detail on the methods used to calculate the ITCALs.

Option 1b: Catch quota for gummy sharks based on a mix of shareholdings and recent participation

Under this option:

- i) quota would be determined using a mix of shareholding and recent participation;
- ii) a new class of share – a ‘gummy shark’ share class would be created; and
- iii) the new shares would be issued to reflect the quota allocated to each Fishing Business (FB).

School and gummy shark shareholders considered a number of ways of allocating quota using shareholdings and recent participation. The three main ways modelled included:

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

The S&G ITCAL for this option is the same as for Option 1a (see Table 1).

Example: If S&G ITCAL = 25.691 tonnes:

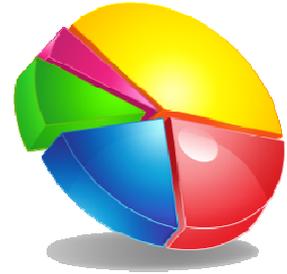
Using the 20/80 model: 20% = 5.14 tonnes, and 80% = 20.55 tonnes.

So, 5.14 tonnes (20%) of gummy shark is allocated to each FB based on the shares they hold (each share is worth 6.72 kgs).

The 20.55 tonnes (80%) of gummy shark is allocated to each FB based on their recent participation (the proportion of catch that each FB has contributed to the total reported landings). Recent participation is the average weight of reported landings of gummy sharks in the S&G share class between the three years 2009/10 – 2011/12³.

Each FB then gets this proportion of the 20.55 tonnes.

Final quota allocation = quota allocated based on shareholdings added to the quota allocated based on recent participation.



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

- for an allocation based only on shareholdings, 18 FBs would be allocated a quota in excess of their 3 year average. Two FBs would need to buy an additional 17.2 tonnes (approximately) to reach their 3 year average. The amount that each of those two FBs would need to buy depends on their recent participation. Generally, the more you caught, the more you would have to acquire; and
- for an allocation using the 20/80 model, some level of adjustment is needed for FBs to reach their current catch levels. This is because the ITCAL apportioned to gummy sharks in this share class is lower than recent catch levels. Over the 15 years used to apportion catch, there has been a shift from gummy sharks being caught in other fisheries (mainly the Ocean Trawl Fishery) to them being caught in the OTLF.

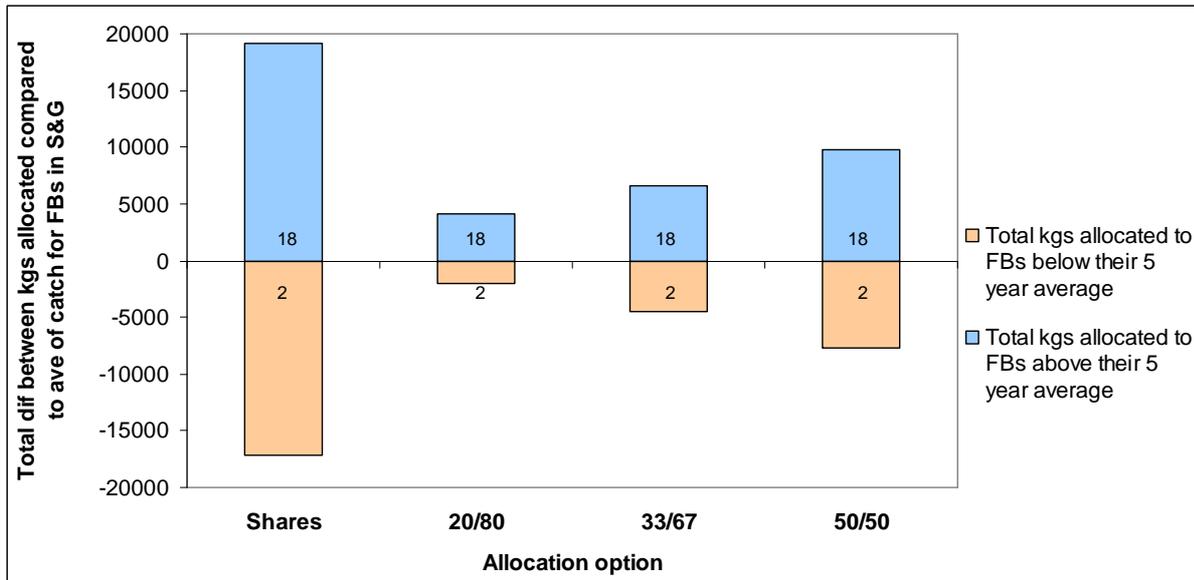


Figure 1. Possible outcome of gummy shark allocation under different allocation models

³ Data from 2009/10 has been used in this allocation as new reporting arrangements from this time allow DPI to determine the proportions of gummy sharks reported as landed in each line sector share class. Prior to this, reported landings could not be separated between sectors and therefore use of data prior to this is not appropriate.

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

- FBs have been used to determine catch allocation. An alternative could be to use the fisher;
- a recent 3-year period has been used for each FB to determine their catch allocation. Some other period could be used, but the available data limits going back any further than this; 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, to be able to catch the gummy shark quota, the minimum shareholding requirement to be eligible for a school and gummy shark endorsement remain at 40 shares.

Feedback requested (in addition to comments on options)

An option that has been put forward for Line fishing eastern zone share class, which may also be of interest as an option in the S&G sector, and that would work in conjunction with a catch quota regime, is that an additional 40 shares could give shareholders access to 1,200 additional hooks.

Fishing periods and annual effort quota allocations

At the beginning of each fishing period, catch quota (kg) would be issued to each shareholder, based on the ITCAL (or in the future the TACC) and the proportional number of S&G shares or 'gummy shark' shares (depending on the final linkage option) held by each shareholder.

If the ITCAL is 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.

A fishing period is the period during which a shareholder may use his or her catch quota (kg). The fishing period proposed for gummy sharks is a 12 month fishing period commencing 1 July each year and is consistent with advice received from shareholders.

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*".

Option 2: Managing endorsement numbers (minimum shareholdings)

This option involves actively managing the number of endorsements as follows:

1. identifying a **maximum number of endorsements**, and
2. **increasing the minimum shareholding** requirements in two-stages (60% of the proposed increase to be met by July 2015, and 100% by July 2016) to reduce the number of endorsements available in the share class.

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).

School and gummy shark shareholders spent considerable time focussing its discussions on trying to develop feasible options using stronger linkages. As such, the school & gummy shark shareholders did not consider the use of minimum shareholdings in any detail as many considered this the weakest form of linkage that did not provide fishers with secure resource access rights into the future. However, given the strong views by shareholders in relation to an allocation of gummy shark quota based on the options above, the minimum shareholding option is also presented here.

Maximum number of endorsements

Since no defined proposal using endorsement numbers was achieved during the shareholder meeting process, the below is presented as a guide for stakeholders in considering this as a share linkage option. The information provided here aims to be consistent, as much as possible, with the options developed for other share classes.

The proposed maximum number of endorsements for S&G has been calculated based on the number of endorsement holders who took 95% or 97% of the Gross Value of Production (GVP) over the three year period 2009/10 to 2011/12 (Table 4).

Table 4 Current numbers of shareholders & endorsements & proposed maximum numbers of endorsements

Share class	Current numbers of shareholders	Current numbers of endorsements	Proposed maximum numbers of endorsements	
			95%	97%
School and gummy shark	20	17	5	5

To be consistent with options outlined for other fisheries, the proposed maximum numbers of endorsements are those that correspond to the number of endorsements that contributed to 97% of Gross Value of Production (GVP) over the three year period 2009/10 to 2011/12. For the S&G share class, this is 5. In the case of S&G, there is no difference between this number and the number of fishers who contributed to 95% GVP.

Proposed minimum shareholdings

For other fisheries, a staged-approach is proposed that involves increasing minimum shareholdings in two steps, with the timing of the initial increase aiming to capitalise on the lower market price for shares expected around the time of the exit grant program. These stages include:

- i) a larger increase to the minimum shareholdings (by 70-80% of the proposed minimum) around the time of the exit grant process and
- ii) a smaller increase in minimum shareholdings 12 months later to 100% of the proposed minimum.

The following table (Table 5) summarises the proposed minimum shareholding level and timeframes.

Table 5. Minimum shareholding required to achieve the target number of endorsement

Share class (total no. of shares)	Current minimum shareholdings	Minimum shareholdings to be satisfied by 1 July 2015	Minimum shareholdings to be satisfied by 1 July 2016	Extra endorsements available above the proposed maximum number
School & gummy shark (765)	40	90	128 (3.2 times greater than current minimum)	<1

The proposed minimum shareholding requirements have been calculated by dividing the *total number of shares* by the *maximum number of endorsements* proposed above. However, to minimise the financial burden on active shareholders without compromising the proposed maximum endorsement numbers (in achieving adjustment), the number of minimum shares have been adjusted down slightly, using a formula consistently applied in other fisheries (refer to ITCALs paper for further details).

Feedback requested (in addition to comments on options)

An option that has been suggested above for a catch quota regime (that has also been suggested for LE) is that holding a block of additional shares gives the shareholders access to 1,200 additional hooks. In writing your submission, please consider whether:

1. the ability to use additional hooks if you hold a block of additional shares is feasible; and, if so
2. how many additional shares should be required to be eligible for 1,200 additional hooks.

Under a stand-alone minimum shareholding program, if viability needed to be improved or if total catch (or effort) were to increase beyond sustainable levels or to a point where resource sharing issues between the fishery and other stakeholder groups become evident, consideration would need to be given to increasing the minimum shareholdings to reduce the number endorsements in relevant sectors of the fishery.

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 package for consideration. Once linkages are in place, a number of controls can be removed to improve operational efficiency and profitability, and to reduce red tape and associated costs.

Table 6 identifies the potential changes associated with each of the reform options (indicated by ticks). Stronger linkage options (catch quota) generally 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 6. Potential changes to current restrictions

Potential changes to current management arrangements for consideration with relevant Reform Options	Reform Option 1	Reform Option 2
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.	✓	✓
Nomination process: Two changes are proposed to streamline the nomination process. <ul style="list-style-type: none"> <i>Registering 'eligible fishers':</i> Remove the requirement to register 'eligible fishers' against fishing a business (FishOnline will automatically check that proposed nominated fishers are already licensed). <i>48 hour restriction:</i> remove the rule preventing a subsequent nomination within a 48 hour period. 	✓	✓
OG1 notations on boat licences: 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, they should be able to fully utilise that endorsement, without a restriction being placed on their vessel. If there is concern that there may be increased fishing pressure in certain waters, then there are more direct ways of managing this. However, the some school & gummy shark shareholders considered that OG1s should be retained because of their monetary value 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, no boat limit can assist in efficiency as larger boats could be used to catch a defined quota. However, since effort quotas are also proposed for some OTLF share classes, the relaxation/removal of boat limits may not be appropriate.	✓	

Comparison of reform options presented

To assist in considering the options and providing feedback, a number of advantages and disadvantages have been identified by DPI and the various working groups as being associated with the linkage options presented, these are outlined in the tables below (Table 7 - 9 below).

Gummy shark catch quota allocated based on shareholdings

The following advantages and disadvantages associated with linking shares to catch quota for gummy shark have been identified by DPI and the school and gummy shark shareholders.

Table 7. Advantages and disadvantages associated with gummy shark catch quota based on shareholdings

Advantages	Disadvantages
Security of access within the fishery is stronger than a minimum shareholding regime or effort quota regime. Fishers have the security of knowing the proportion of the allocated catch that they own.	The major con is that this allocation has severe impacts on those operators who focus heavily on this species. Shareholders would have to buy up to <u>10 times</u> the current 40 minimum shareholding to get enough kgs quota to match their average.
Shareholders invest autonomously.	Costs more to implement than a minimum shareholding scheme – because of the creation of a new class of share, quota allocation and monitoring requirements.
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.	May result in the discarding of marketable fish (including through high-grading), although allowing the transfer of quota, as proposed above, is one way to minimise the risk of dumping.
Eliminates the issue of latent effort impacting shareholders who rely heavily on access to a quota species.	
Complements Commonwealth management arrangements for shared species.	
If an ITCAL (or in the future a TACC) is reduced for viability, sustainability or resource sharing reasons, it would: <ul style="list-style-type: none"> • Have a direct and immediate effect on catch levels compared to increasing minimum shareholdings under the alternative reform option. • 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 minimum shareholding option. 	
Shareholders can concentrate on making money: by catching their quota as efficiently as they can (i.e. at least cost), focusing on quality rather than quantity and value adding rather than the current system of racing to catch fish before someone else does.	
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 higher (potentially optimum) asset (i.e. share) values – because of the above.	

Gummy shark catch quota allocated based on shareholdings and recent participation

The following advantages are in addition to those presented above in Table 7 and alleviate some of the disadvantages. However, there are additional disadvantages due to the use of recent participation in the allocation process. See also Appendix 1 of the general information paper.

Table 8. Advantages and disadvantages associated with a gummy shark catch quota based on shareholdings and recent participation

Advantages	Disadvantages
The major advantage is that the use of recent participation goes a long way towards fixing the distortion in this share class because fishers receive an allocation of quota that closely reflects the recent fishing effort/catch for their FB.	The share allocation process would come at a cost – potentially borne by shareholders in the form of an application fee.
Should satisfy high catch 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.	Would disadvantage shareholders who have the minimum shareholding but have very low/no effort in these share classes in recent years due to extenuating circumstances or recent investment.
Opportunity to pursue stronger linkage options rather than defaulting to weaker linkage options (i.e. minimum shareholdings).	Risk of legal challenge if a shareholder is not satisfied with the shares allocated and perceive their existing property rights to have been devalued.
Could provide better longer term outcomes and avoid problems associated with deadline driven expediency.	The new shares would be issued in addition to the current shares, resulting in a second layer of rights being created – this, and the associated complexity may, however, be a small price to pay if there are demonstrated long term benefits.
Reduced risk of downfall in production or supply chain/regional employment issues that could occur if a number of high catch fishers exited within a short period of time.	The final criteria to determine the type of split (e.g. 20/80, 33/67 etc) and criteria years may differ from that presented here which may prolong uncertainty for fishers.
	Risk of shareholders seeking to modify already submitted catch and effort records in an attempt to be eligible for more shares, although there are ways to manage this.

With respect to future stock assessments and TACC setting requirements, which can be expensive, NSW DPI would, where practical, work closely with the industry (and adjacent jurisdictions where necessary) to implement assessments and systems that are commensurate with the scale and viability of the NSW commercial fishing industry.

Managing endorsement numbers (minimum shareholdings)

The following advantages and disadvantages associated with a minimum shareholdings regime for school and gummy shark have been identified by DPI and the school and gummy shark shareholders.

Table 9. Advantages and disadvantages associated with Option 2 – minimum shareholdings

Advantages	Disadvantages
Simplest and thus the cheapest way for the government 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 for shareholders could 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.
	Opportunity to remove or relax input controls will be limited.

Advantages	Disadvantages
	<p>Ongoing reliance on the monitoring program to monitor shifts in catch (of all species) between sectors of the OTLF and between the OTLF and other stakeholder groups.</p> <hr/> <p>Little security of access within the fishery and cannot be used to respond to species-specific sustainability or resource sharing issues:</p> <ul style="list-style-type: none"> • Competition with other stakeholder groups will continue. • Opposition from other sectors to changes that would benefit the fishery will likely continue. • Government may be required to default to crude controls (e.g. closures, size limits, trip limits etc.) that sometimes deliver perverse outcomes such as loss of access or discarding etc. <hr/> <p>If total effort needs to be reduced for viability, sustainability or resource sharing reasons, increasing the minimum shareholding requirements would be one of the few options available to the fishery, noting:</p> <ul style="list-style-type: none"> • 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). <hr/> <p>Optimum asset (i.e. share) values unlikely to be realised, because of the above disadvantages.</p>

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 a separate 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 a separate paper), line fishing eastern zone (discussed in a separate paper), and school and gummy shark sector (discussed in this 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 itself 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. Figure 1 shows the numbers of shares held by S&G shareholders.

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

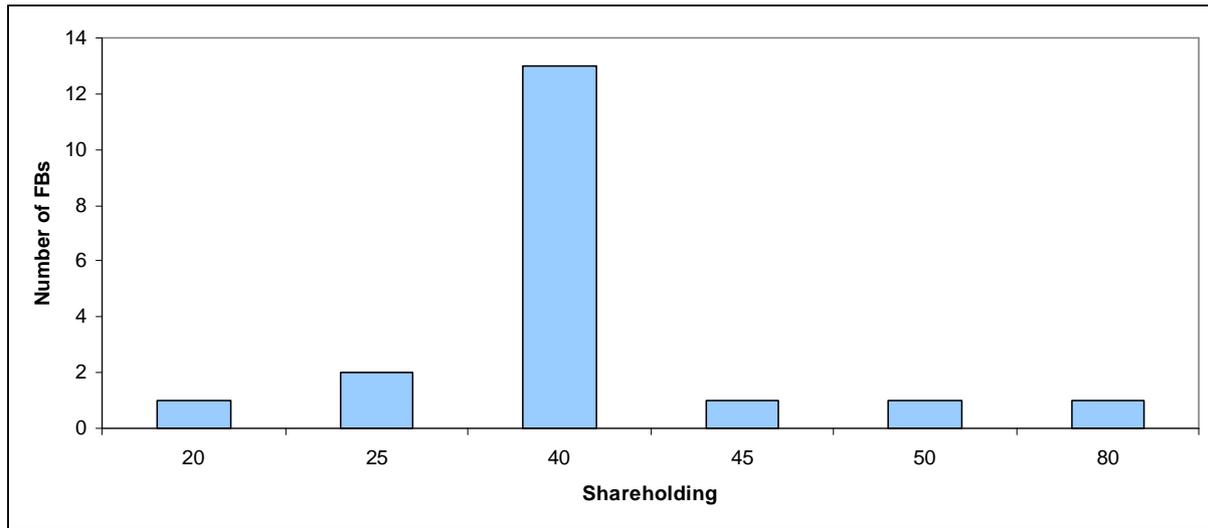


Figure 4 School and gummy shark shareholding distribution