



NSW COMMERCIAL FISHERIES REFORM PROGRAM

Share linkage options

Ocean Haul - Hauling Nets

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Share Linkage Options – Ocean Haul - Hauling Nets

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Foreword

The purpose of this paper is to describe potential share linkage options for certain sectors of the NSW Ocean Haul Fishery for consideration by the Share Linkage Working Group at its second meeting in December 2013. The Working Group will be discussing share linkage options for the following share classes: Ocean Haul General Purpose Hauling (GPHN), Ocean Haul Pilchard Anchovy and Bait net (PAB) and Ocean Haul General (OHG) share classes.

The share linkage options presented in this paper were short-listed by the Working Group at its first meeting having regard to the following hierarchy of linkage options proposed by the independent review team in the *Independent Review of NSW Commercial Fisheries Policy, Management and Administration* (the Review):

1. Where catch quota is a feasible proposition for a species, it should be pursued as the preferred option for linking shares to resource access. In multi-species share classes where species specific catch quotas do not encompass the bulk of the catch taken, the alternative linkage options below may need to be pursued for non-quota species.
2. If species specific catch quotas are not a feasible proposition, shares in that sector should be linked to fishing effort in the form of transferable time/gear based quota.
3. In the event that the two approaches above are demonstrated to not be feasible for a share class (i.e. the financial and other costs heavily outweigh the benefits), shares should be linked to resource access at the endorsement level whereby eligibility for an endorsement is determined by holding a minimum number of the corresponding shares.

The share linkage options presented in this paper are not the only feasible share linkage options for this fishery. A hybrid or combination of the linkage options presented in this paper may also be feasible.

Another important part of the reform program is the streamlining of current management arrangements to improve industry viability through, for example, increased business flexibility, improved operational efficiency and minimised management costs. The streamlining of current management arrangements will be influenced by the strength of the linkages pursued and whether the reasons for implementing the management arrangements can be met in other ways. Towards the end of this paper is detailed discussion on the management arrangements that may be able to be streamlined, for further consideration by the Working Group.

Depending on their feasibility, the share linkage options and ancillary reforms will be referred to shareholders for consideration and comment, and a public consultation phase will be needed given the interests of the other fishing sectors and some parts of the community in changes to the rules and regulations applying to the State's commercial fisheries. They will then be referred to the Structural Adjustment Review Committee (SARC) along with all submissions received for consideration and final recommendations to the Minister for Primary Industries.

The background and justification for the commercial fisheries reform program and the linking of shares to resource access is explained in detail in the *Independent Review of NSW Commercial Fisheries Policy, Management and Administration* (the Review), the Government's response to the Review, an Information Paper summarising the major findings of the Review and Commercial Fisheries Newsletters – all of which are available on the Commercial Fisheries Reform Homepage on the NSW DPI website. The overarching objectives of the reform program are to:

- Provide shareholders improved flexibility to tailor their access (and management costs)
- Improve the overall viability of the NSW commercial fishing industry
- Improve the value of shareholders' property rights (i.e. shares)
- Improve investment confidence and support from financial institutions
- Improve management and the public's perception of the NSW commercial fishing industry.

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Major issues facing the NSW Ocean Haul Fishery (GPN, PAB & OHG)

There are a number of major issues facing the NSW Ocean Haul Fisheries that can be addressed through the reform program (and the linking of shares to resource access) include:

- Surplus fishing capacity in some regions that can be activated at any time and that pose a risk to the viability of active participants in those regions and the fishery at large.
- A lack of availability of net and crew shares/endorsements in other regions that is hampering efficient hauling operations.
- Limited opportunity to improve operational efficiency through, for example, reviewing crewing arrangements or reviews of closures.
- Need to maintain diversity of fishing opportunities given the seasonal nature of beach hauling.
- Public perception issues and ongoing conflict between beach haulers and other stakeholders, noting that the deplorable actions of a few often taint the reputation of the whole fishery.

Interim Total Commercial Access Levels (ITCALs)

In this paper there are many references to Interim Total Commercial Access Levels (ITCALs). Understanding ITCALs is important because they are a key element of the catch and effort quota management options set out in this paper. As the term suggests, an “ITCAL” is a temporary limit set for the purpose, and during a period, of significant industry adjustment.

Once set, an ITCAL operates in the same way as a Total Allowable Catch (TAC), Total Allowable Commercial Catch (TACC) or a Total Allowable Effort (TAE), but it serves a different purpose and is set in a different way.

A TAC is the total amount of catch that can be taken in a specified period, usually a year. TACs are sometimes setup to apply across all, or a range of, stakeholder groups however they can also be setup to apply to a given sector only – for example, the TACC applying to the NSW Rock Lobster Fishery applies only to the commercial sector. A TAE is similar but relates to the total amount of effort that may be used in the specified period.

TACs are usually based on a stock assessment that takes into account a wide range of information from a variety of sources including logbooks and scientific surveys etc. TAEs, which act as a proxy for limiting total catch, are based on similar information.

Because of the time and resources required to establish biologically based TACs and TAEs that are scientifically robust, an alternative approach is being pursued for setting the initial total catch and effort levels where necessary. This alternative approach involves:

- Recognising the new total catch and effort levels as ITCALs given that they will not be biologically based as per the vast majority of TACs and TAEs; and,
- Setting the initial ITCALs at levels commensurate with current catch or effort levels in the sector(s) concerned.

This approach was referred to in the Independent Review report:

“Catch and effort limits are likely to be set, at least initially, at levels commensurate with current levels. While these limits may need to be scaled back over time in some share classes to increase the productivity of the resource or deal with overfishing issues, the issues associated with doing so will be considerably easier once a meaningful linkage has been established.”

(Independent Review of NSW Commercial Fisheries Policy, Management and Administration Report; pg 72).

In recognition of the role of the ITCALs during the structural adjustment phase and to provide industry with some level of certainty, it is proposed to set the ITCALs for a three year period and only modify them within this period if there is a demonstrable sustainability problem that arises in a particular share class, or if the shareholders themselves request, and DPI agrees, for it to be modified. After that point, the ITCALs will progressively be turned into TAC/TAEs determined in accordance with the processes and requirements set out in the *Fisheries Management Act 1994* (Part 2, Division 4).

Option 1: Effort Quota – GPHN & PAB

Under this scenario catch is indirectly managed via a ‘consumable’ quota of days.

The major features of a day regime include:

- Opportunity to adjust or remove a range of controls that inhibit fishers’ profitability and government efficiency (noting the scope for this would be greater than under Option 3 (minimum shareholdings) but less than under Option 2 (catch quota))
- Provides for autonomous (as opposed to forced) adjustment.
- Opportunity for shareholders to upscale or downscale their access (and associated management charges which would be proportional to the number of shares held).
- Improved control over total catches from the fishery, which can be beneficial from a range of perspectives including capacity to deliver sustainability and resource sharing objectives within the fishery and between the fishery and other sectors.
- Improved community confidence that the fishery is operating at sustainable levels and that total effort can be managed if a sustainability issue were to arise. This may lead to greater community and government support for proposed changes/streamlining to benefit fishers.

Total catches of major species would still need to be monitored under a day linkage program to ensure harvest levels do not exceed sustainable limits or levels that result in adverse resource sharing issues. If such a situation occurred, consideration would need to be given to reducing the ITCAL (i.e. the total number of days available to the fishery) to reduce the total fishing effort – noting that any reductions would apply on a pro-rata basis across all shareholders rather than using the historical approach of introducing an additional control that applies equally and constrains the efficiency/flexibility of active fishers.

Determining the ITCALs

Determining the ITCALs – i.e. the total number of days available to each sector – would be determined by averaging the total number of reported days fished in each sector over the three financial years 2009/10 to 2011/12. This time period was used as the new catch and effort reporting arrangements implemented in 2009 allow days/fishing methods to be matched with the various share classes.

Table 1 Calculation of State-wide days ITCALs for ocean hauling net sectors.

Sector	Potential ITCAL
GPHN	523
PAB	60

Note: DPI will present the data used to calculate the sector specific ITCALs above. These discussions and advice of the Working Group may result in changes to the above ITCALs and the day quota that would be available to shareholders as presented below.

Determining the quota of 'days' available to shareholders

If the ITCAL (days) was allocated amongst shareholders proportional to the number of shares held, the quota issued per share would be as follows:

Table 2 Calculation of quota per share (days) for GPHN and PAB

Sector	Potential ITCAL	Total Shares	Quota per share (days)	Quota (days) per 40 shares
GPHN	523	6840	0.08	3.20
PAB	60	640	0.10	4.00

If shares are surrendered for cancellation prior to implementing the quota system, for example during the exit grant process, the amount of quota per share available to those that remain will be greater than the estimates above.

Fishing period

An allocation of quota is available to be fished during what is known under the *Fisheries Management Act 1994* as a 'fishing period'. Fishing periods are generally defined as 'one year', however, they can also be longer or shorter.

Realistic options include a one or two year fishing period. Longer fishing periods can result in reduced total management costs and are a feasible proposition for stocks at low risk of overfishing. Stocks at greater risk of overfishing are best managed using shorter (one year) fishing periods. Shorter fishing periods also allow for ITCALs/TACs to be adjusted more readily to take advantage of 'a good run of years'.

Defining a 'day'

Two options for defining a day include:

- a 24 hour period from the time the endorsed fisher goes fishing, or more specifically from the time the fisher makes a pre-fishing report via the IVR or smart phone app systems, or
- a set 24 hour period (e.g. from midnight to midnight).

Monitoring quota usage

A day quota system requires effort to be monitored on a daily basis if the system is to have integrity. One way to do this is through the current paper-based log book system, however, there are several reasons why this would be inadequate including:

- Log books are used to capture a range of information (e.g. catch, effort and disposal information) some of which is not readily available for the purpose of submitting log books daily;
- Resource intensive for fishers and DPI;
- Inability to monitor and enforce effort quota in real time;
- The online log book system in FishOnline is not designed to deal with acquitting quota usage.

The most cost effective ways to closely monitor a 'consumable' day quota would be to utilise the Integrated Voice Response (IVR) System recently developed by DPI or the new smart phone app being built. The IVR system would require fishers to make a pre-fishing report only using a mobile phone. It also provides for real-time monitoring of quota usage and real-time quota balances in FishOnline, which will be accessible by shareholders (and any 'agents' they appoint to access FishOnline on their behalf). Reporting other information could be done separately either online or by using a streamlined version of the current commercial log book.

FishOnline and the IVR system have been designed to deal with quota management regimes along the lines of that presented here. Consequently, it is envisaged that neither system would need to be enhanced unless the OHF decides that additional requirements are needed e.g. no quota transfers within a certain timeframe. However, complications may arise for fishers working fishing businesses with many share classes that are subject to 'consumable' catch or effort quotas.

Each time a fisher phones in on the IVR system, he or she would need to listen to the full range of quota regimes relevant to the fishing business concerned before choosing the quota regime to report against. Preliminary testing of the IVR system indicates that having more than 3 to 4 quota regimes linked to a fishing business may frustrate some users. There are, however, a number of potential solutions:

- Move the shares that are linked to a quota regime into a separate fishing business. This would alleviate the need for the fisher to listen to the full range of quota regimes relevant to the fishing business concerned each time he or she uses the IVR system.
- NSW DPI is developing new technology (i.e. a smart phone app) that should be easier for fishers to use than the IVR system – much like using the internet where the user chooses the quota regime he or she is interested in without first having to listen to a list of quota regimes.

Acquiring additional quota

Acquiring additional day quota could be achieved by a fisher in two ways:

- By transferring relevant shares, which would result in the shareholder having an ongoing right to a greater portion of the ITCAL/TAC for future fishing periods; or
- By transferring quota from other relevant shareholders, which may be fished during the balance of the relevant fishing period only.

Share and quota transfers will be able to be done at minimal or no cost using FishOnline or for a fee if done via a paper-based application.

If all (or the last) share of the relevant class is transferred from a business, any quota remaining – quota that has not been used or not already transferred to another shareholder – would be transferred along with the last share to the new shareholder. This arrangement currently applies in the Abalone, Lobster and SUTS fisheries and has been hardwired into FishOnline.

Reasons for allowing leasing:

- Helps those wanting to fish at a desired level but cannot afford to buy shares.
- Helps those who run out of quota and want to top up their allocation without buying shares.
- Helps those who want to transfer their quota to another fisher and use the proceeds for other purposes such as adjusting their business/purchasing more shares.
- Helps to ensure the entire ITCAL/TAC is used (i.e. such that there is little or no quota left over at the end of a fishing period).

Reasons against allowing leasing:

- Slows the rate of adjustment.
- Means that shares are less available to purchase for those fishing business owners who want the ongoing right/certainty to a greater portion of the ITCAL/TAC.
- May stimulate 'quota barons' (i.e. people who purchase significant numbers of shares with the intent of leasing quota to other fishers).

DPI's preliminary view is that the ability to transfer quota is an important component of any (catch or effort) quota management regime, and that the amount of quota that may be transferred to a shareholder during a fishing period should not be restricted unless there is a

compelling reason to do so. However, there may be reasons why the Working Group/industry considers that an interim limitation on quota transfers should be implemented.

Also important to note is that:

- FishOnline has been designed to allow quota transfers and this function cannot be turned on for one quota regime (or fishery) and at the same time be turned off for another – in other words because FishOnline has been set up to provide for quota transfers in the Rock Lobster, Abalone and Sea Urchin fisheries, any other fisheries that proceed to quota management and use FishOnline will need to provide for the transfer of quota unless significant cost to modify FishOnline is incurred; and,
- Modifying FishOnline to introduce limits on the amount of quota that may be transferred to a shareholder during a fishing period will impact the performance (i.e. speed) of FishOnline, come at a cost that will need to be borne by government or industry and may frustrate shareholders trying to acquire additional quota.

Attributing management charges to shareholders

Under a day quota system the cost of management is attributed to shareholders proportional to the number of shares held. In other words, a shareholder with a large package of shares (and greater access) will pay a larger share of the management costs than a shareholder with a smaller package of shares. Paying per share (or day quota) can be beneficial to fishers who are diversified and need only a small number of shares (or days) to compliment their other fishing activities – particularly when compared to a minimum shareholding system where all shareholders are charged the same regardless of how many shares they hold and how many days they fish or how much catch they may take.

Minimum shareholding requirements for new entrants

Minimum shareholding requirements can be used in conjunction with a quota system to assist in adjustment within the share class. This would mean that, as with other share classes, as soon as share trading occurs, both the buyer and seller of shares must have the minimum shareholding requirement to be issued with an endorsement. Quota could still be transferred from a fishing business that has less than the minimum shareholding.

Discussion and advice required

The Working Group's advice is sought on the following:

- Are the ITCALs and how they've been determined appropriate?
- The feasibility of allocating days quota in proportion to existing shareholdings;
- A suitable 'fishing period' and when the fishing period should commence
- How a 'day' should be defined
- The use of the IVR or smart phone app system to monitor effort quota usage
- Whether minimum shareholding requirements should be used in conjunction with a day quota regime.

Option 2: Species Catch Quota (GPHN)

Under this scenario selected species (tailor and mullet) taken in the NSW Ocean Haul GPHN Fishery are managed by catch quota.

The major features of a catch quota system include:

- Optimum opportunity to remove a wide range of controls that inhibit fishers' profitability and efficiency.

- Provides for autonomous (as opposed to forced) adjustment.
- Opportunity for shareholders to upscale or downscale their access (and associated management charges which would be proportional to the number of shares held).
- Stronger security of investment in a fishers' share within the fishery relative to effort quota and minimum shareholding regimes.
- Tight control over each species' total catch from the fishery, which can be beneficial from a range of perspectives including capacity to deliver sustainability and resource sharing objectives within and between the fishery and other sectors.
- Increased confidence that the fishery is operating at sustainable levels. Confidence that catches are tightly controlled may lead to greater community and government support for proposed changes/streamlining to benefit fishers, including their fishing efficiency.

These major features must, however, be considered alongside the full range of issues sometimes associated with catch quota systems such as implementation/ongoing costs.

Determining the ITCALs

Step 1: The ITCALs for this option have been calculated using the 15 year average (1997/98 to 2011/12) of total catches for each species. Based on this approach the NSW industry wide ITCALs for each species under consideration for quota management.

Table 3: Industry-wide ITCAL of kgs for Tailor and Sea Mullet.

Species	Industry wide ITCAL (kgs)
Tailor	61,900
Sea Mullet	3566,900

Step 2: The industry wide ITCAL of Sea Mullet and Tailor then needs to be apportioned to the Ocean Haul Fishery. This has been done by averaging the reported commercial landings for each species across all commercial fisheries (incl. EPTF, OTF, etc) over the 15 year period 1997/98 to 2011/12.

Table 4: Ocean Haul Fishery ITCAL of kgs for Tailor and Sea Mullet.

Species	% of Industry wide ITCAL	OHF ITCAL (kgs)
Tailor	21.1	13,061
Sea Mullet	50.4	1797,718

Note: DPI will present the data used to calculate the industry wide ITCALs above. These discussions and advice of the Working Group may result in changes to the above ITCALs and the species quota that would be available to shareholders as presented below.

Step 3: The Ocean Haul Fishery (OHF ITCAL) then needs to be allocated amongst relevant shareholders proportional to the number of shares held. This allocation was undertaken directly proportional to the shares held on a state wide basis. This is consistent with the concept that shares in different regions have equal fishery wide value. Catch reported as being taken lawfully was used in the allocation. For ease of interpretation, numbers have been rounded to the nearest decimal point.

Determining the quota for each species available to shareholders

If the ITCAL was allocated amongst shareholders proportional to the number of shares held state wide, the quota issued per share would be as follows:

Table 5: Calculation of quota per share for the GPHN Sectors

Sector	Species	ITCAL (kg)	Total shares	Quota per share (kg)	Quota (kg) per 40 shares
GPHN	Tailor	13,061	6840	2.0 kg	80 kg
	Sea Mullet	1797,718	6840	262.9 kg	10,516 kg

If shares are surrendered for cancellation prior to implementing the quota system, for example during the exit grant process, the amount of quota per share available to those that remain will be greater than the estimate above.

Other issues to consider

Additional issues relevant to a species catch quota regime, include:

- Defining the fishing period (same as Option 1).
- Monitoring quota usage (modified for Option 2 – see below).
- Acquiring additional quota (same as Option 1).
- Attributing management charges to shareholders (same as Option 1).
- Minimum shareholding requirements for new entrants (same as Option 1).

Monitoring quota usage

With respect to monitoring catches, the IVR system has been designed to require endorsement holders to make a pre-fishing and post landing report using a mobile phone. A smart phone app is also being built which will have functionality covering these three types of reports.

Additional issues to note

Issues to note that are not covered above or in the share linkage options comparison table – Table 20 Appendix 1 – include:

1. If these species are taken in other share classes and are not considered for catch in those share class, consideration will need to be given as to how the integrity of the GPHN catch quota regime would be maintained. Options include, but are not limited to:
 - Managing the species by quota across all share classes,
 - Applying a catch cap in any other share class with additional trip limits etc if needed.
2. Tailor is subject to a closure notice restricting fishing to incidental bycatch and is not currently listed as a target species in the ocean haul general purpose hauling net fishery. Pursuing implementation of quota for this species would require a determination that that tailor should be a target species in this fishery. .

Discussion and advice required

The Working Group's advice is sought on the following:

- Are the ITCALs and how they've been determined appropriate?
- The feasibility of allocating species catch quota in proportion to existing shareholdings;
- How should the remainder of GPHN species not under catch quota be managed?
- Whether minimum shareholding requirements should be used in conjunction with a species catch quota regime;

- A suitable 'fishing period' and when the fishing period should commence;
- The use of the IVR or smart phone app system to monitor effort quota usage.

Option 3: Limiting Endorsement Numbers (minimum shareholdings) – GPHN & PAB

Under this scenario catches are indirectly managed by managing the number of endorsement holders in each sector of the fishery. This is achieved by adjusting the minimum shareholding (which determines shareholders' eligibility to an endorsement). The major features of moving to a minimum shareholding system include:

- Forced (as opposed to autonomous) adjustment.
- A very direct and effective mechanism to adjust the number of endorsements in the fishery.
- Limited control over catch and effort in the fishery.
- Limited opportunity to modify or remove current controls that inhibit fishers' efficiency and profitability.
- Management charges are shared amongst shareholders equally, regardless of the number of shares held.
- The security of investment is not as strong as a catch or effort linkage regime – endorsement holders continue to compete for their share of the available resource.

Under a minimum shareholding regime total catches of major species would still need to be monitored to ensure that harvest levels do not exceed sustainable limits or levels that result in adverse resource sharing issues. If such a situation occurred, consideration would be given to increasing the minimum shareholding requirements (i.e. to reduce the number of endorsements in the fishery).

Step 1 - Determining the adjustment targets

Determining a target number of endorsements is the first step. This can be done intuitively, but is best achieved by considering fishers' catch or Gross Value of Production (GVP). For the purpose of this paper total GVP over the three year period 2009/10 to 2011/12, calculated using the average monthly prices for fish sales through the Sydney Fish Market, has been used. The following tables show the numbers of businesses that accounted for the various percentages of total GVP (60% through to 99%) across these three years.

Note that at the time of modelling, there was no catch recorded in region 5 for the years that could be used to calculate the GVP figures. Endorsement target numbers and the relevant shareholdings are provided for information.

Table 6 Numbers of FBs that contributed towards various percentages of total GVP for the GPHN sector Region 1

60% GVP	70% GVP	75% GVP	80% GVP	90% GVP	95% GVP	97% GVP	99% GVP	#FBs with shareholdings
1	1	1	1	1	1	1	2	6

Table 7 Numbers of FBs that contributed towards various percentages of total GVP for the GPHN sector Region 2

60% GVP	70% GVP	75% GVP	80% GVP	90% GVP	95% GVP	97% GVP	99% GVP	#FBs with shareholdings
1	2	2	2	3	4	5	6	12

Table 8 Numbers of FBs that contributed towards various percentages of total GVP for the GPHN sector Region 3

60% GVP	70% GVP	75% GVP	80% GVP	90% GVP	95% GVP	97% GVP	99% GVP	#FBs with shareholdings
2	2	2	2	3	5	7	8	25

Table 9 Numbers of FBs that contributed towards various percentages of total GVP for the GPHN sector Region 4

60% GVP	70% GVP	75% GVP	80% GVP	90% GVP	95% GVP	97% GVP	99% GVP	#FBs with shareholdings
4	6	7	9	13	16	18	20	48

Table 10 Numbers of FBs that contributed towards various percentages of total GVP for the GPHN sector Region 6

60% GVP	70% GVP	75% GVP	80% GVP	90% GVP	95% GVP	97% GVP	99% GVP	#FBs with shareholdings
2	2	2	2	4	5	6	7	13

Table 11 Numbers of FBs that contributed towards various percentages of total GVP for the GPHN sector Region 7

60% GVP	70% GVP	75% GVP	80% GVP	90% GVP	95% GVP	97% GVP	99% GVP	#FBs with shareholdings
2	2	2	3	3	4	4	6	14

Table 12 Numbers of FBs that contributed towards various percentages of total GVP for the PAB sector Regions 1 through 6

	60% GVP	70% GVP	75% GVP	80% GVP	90% GVP	95% GVP	97% GVP	99% GVP	#FBs with shareholdings
PAB1	1	1	1	1	2	2	2	2	5
PAB2	2	3	3	3	3	3	3	3	3
PAB3	2	2	2	2	2	2	2	2	6
PAB4	2	2	2	2	2	3	3	3	5
PAB5	0	0	0	0	0	0	0	0	5
PAB6	1	1	1	1	1	1	1	1	3

Step 2 - Calculating the minimum shareholding requirements

The adjustment targets are then used to calculate the minimum shareholdings that would apply. This is achieved by dividing the total number of shares in the fishery/region by the target number of endorsements.

Table 13 GPHN Region 1 - Minimum shareholdings required to achieve various target numbers of endorsements* (6 shareholders)

Note: Total number of shares = 320

No. of ends	1	2
Min shareholding	320	160

Table 14 GPHN Region 2 - Minimum shareholdings required to achieve various target numbers of endorsements* (12 shareholders)

Note: Total number of shares = 380

No. of ends	1	2	3	4	5	6
Min shareholding	380	190	126	95	76	63

Table 15 GPHN Region 3 - Minimum shareholdings required to achieve various target numbers of endorsements* (25 shareholders)

Note: Total number of shares = 1680

No. of ends	2	3	5	7	8
Min shareholding	840	560	336	240	210

Table 16 GPHN Region 4 - Minimum shareholdings required to achieve various target numbers of endorsements* (48 shareholders)

Note: Total number of shares = 1960

No. of ends	4	6	7	9	13	16	18	20
Min shareholding	490	326	280	217	150	122	108	98

Table 17 GPHN Region 5 - Minimum shareholdings required to achieve various target numbers of endorsements* (7 shareholders)

Note: Total number of shares = 190

No. of ends	2	3	4	5	6
Min shareholding	95	63	47	38	31

Table 18 GPHN Region 6 - Minimum shareholdings required to achieve various target numbers of endorsements* (13 shareholders)

Note: Total number of shares = 480

No. of ends	2	4	5	6	7
Min shareholding	240	120	96	80	68

Table 19 GPHN Region 7 - Minimum shareholdings required to achieve various target numbers of endorsements* (14 shareholders)

Note: Total number of shares = 1830

No. of ends	2	3	4	6
Min shareholding	915	610	457	305

Table 20 PAB All Regions - Minimum shareholdings required to achieve various target numbers of endorsements*

No. of ends	1	2	3	4	5	6	Total Shares	#FBs with shareholdings	
Min shareholding	PAB1	230	115	76	57	46	38	230	5
	PAB2	30	15	10	7	6	5	30	3
	PAB3	160	80	53	40	32	26	160	6
	PAB4	80	40	26	20	16	13	80	5
	PAB5	90	45	30	22	18	15	90	5
	PAB6	50	25	16	12	10	8	50	3

*Shareholdings have been rounded down to the nearest whole share

If shares are surrendered for cancellation prior to implementing the minimum shareholding scheme, for example during the exit grant process, the minimum shareholdings required to deliver the adjustment targets will be less than those set out in the tables above.

Period during which minimum shareholdings must be satisfied

Under a minimum shareholding regime it is important to determine the timeframe by which shareholders must satisfy the minimum shareholding requirements in order to remain endorsed to participate in the fishery. Options range from a once-off increase in the short term through to progressively increasing the minimum shareholdings over a longer time period. Issues for consideration include:

- Government assistance, in the form of exit grant payments, will only be available in the short term (i.e. in 2014).
- For sectors requiring significant adjustment, one of the few strategies that can be adopted is to extend the timeframe available for shareholders to satisfy the minimum shareholding requirement.

Regardless of whether a short term or long term approach is adopted, to streamline administration DPI would seek to align all minimum shareholding periods across fisheries. This would prevent having to issue new fishing business cards etc each time an endorsement is added or removed from a fishing business card.

DPI's preferred position is to pursue a once-off increase in the short term unless significant adjustment and investment in shares would be required (depends on the target selected). In this latter case DPI would support progressively increasing the minimum shareholding requirements over two periods, or three periods in extreme cases.

Attributing management charges to shareholders

If managing endorsement numbers using minimum shareholdings, the cost of management is attributed to shareholders equally. In other words, all shareholders pay the same regardless of how many shares are held or how much the fisher works or catches.

Discussion and advice required

The Working Group's advice is sought on the following:

- Should a minimum shareholding regime be considered as an option (to be put to shareholders for comment) in the GPHN and PAB components of the OH fishery?
- What are the appropriate adjustment targets (i.e. maximum number of endorsements) for each share class)?
- An appropriate timeframe for shareholders to satisfy the minimum shareholding requirements in order to remain endorsed to participate in the fishery.
- How adjustment targets for region 5 of the fishery. There was no reported catch during the GVP criteria years used for the basis for calculating adjustment targets in the other regions. Various endorsement adjustment targets and the relative shareholdings have been provided in the following tables to assist.
- A key concept that arose from the first working group meeting was that shares issued in this fishery were issued in proportion to the catch history at the time. i.e: shares in separate regions have the same relative value. Is this model appropriate considering this concept?

Option 4: Block licence arrangement for crew

The Working Group requested the development and modelling of a linkage arrangement which provided for a 'block' licensing type regime. This would aim to provide more flexibility in the use of crew in the fishery.

The Working Group noted that future changes to existing crew licensing arrangements should not disadvantage any existing crew shareholder who focuses solely on crewing.

Based on these principles the following regime has been modelled for consideration.

What changes are being investigated?

A block licence would enable unendorsed persons assist a net endorsement holder or crew person assist them in their activity. A fishing business owner would need to accrue a block of additional OHG shares.

How many shares would I need to get a block crew member?

To accrue more than one unlicensed crew entitlement a fishing business owner would require multiples of the target minimum. ie: Assuming the target minimum is 80 shares, a fishing business owner could be entitled to use two unlicensed crew if they accrued 160 shares.

One way of determining the appropriate level of shareholding required could be to determine a maximum number of block crew entitlements available in a fishery / region. For example, in the table below the top row indicates the minimum shareholding targets that could be considered and the numbers within the table indicate the maximum number of block licence endorsements that would be available using that target.

Table 21 Minimum shareholding targets and the maximum number of endorsements in each region for ocean haul general shares.

Target Minimum Shareholding	40	50	60	70	80	90	100
OH General Reg1	15	12	10	8	7	6	6
OH General Reg2	31	24	20	17	15	13	12
OH General Reg3	46	37	31	26	23	20	18
OH General Reg4	113	90	75	64	56	50	45
OH General Reg5	17	13	11	9	8	7	6
OH General Reg6	38	30	25	21	19	16	15
OH General Reg7	43	34	28	24	21	19	17

I am a full time crew person and I do not want a block licence. What would I need to do to continue fishing?

Dependant on the final minimum shareholding determined, existing crew entitlements could be linked to the new minimum shareholding recommended overall, i.e. the same minimum is set for both the standard crew endorsement and block crew entitlements.

How would block crewing entitlements be indicated on the fishing business card?

An entitlement to a block crewing endorsement does not fall under the current shareholding structure or endorsement scheme and as such regulatory, systems or administrative changes may be required. This could add additional cost to the scheme.

Comparison of share linkage options

The share linkage options investigated in this paper all have pros and cons and address, to different degrees, the various objectives of the reform program.

Changes to fishing rights can also be difficult for fishers. When linking property rights to resource access it is natural for those affected to focus on how much quota they will get and how the program may adversely affect their business – the negatives are easily speculated and advocated, and the longer term positives seem too far away to be tangible. There is no doubt that linking property rights to resource access will change the way shareholders manage their businesses and or operate.

The government has advised that the final decision on linkage will be based on merit (i.e. not a shareholder vote), so it is critical that consideration is given to not only the pros and cons of the various linkage options, but their effectiveness delivering on the full range of government and industry objectives of linking property rights to resource access.

Table 21 (Appendix 1) compares the three linkage options set out in this paper against a range of short and long term objectives – from government and industry perspectives – that are important to consider.

Costs associated with the share linkage options

A major consideration for shareholders will be the costs associated with the various linkage options, particularly given the proposed development and introduction of a new cost recovery framework. The cost of management is also an issue for government given current industry subsidies and the Act's [secondary] objective to promote a viability commercial fishing industry.

The costs associated with the various linkage options are, however, only one part of the overall picture in terms of shareholder profitability and the government's obligation to promote industry-wide viability. Some important points to note include:

- Individual shareholder profitability is influenced by a wide range of issues many of which are outside the direct control of the State government. Examples include: the cost of boats and equipment; the price received for product harvested; and the fishing ability and business skills of the shareholder concerned.
- Promoting industry-wide viability is a longer term objective that is also influenced by a range of things including, pertinent to the reform program underway: the cost, complexity and flexibility afforded by the management frameworks put in place and the removal/relaxation of controls that inhibit the operational and business inefficiency of fishers.

Overall, these issues need to be considered alongside the range of social and economic benefits that arise from linkage shares to resource access, including gaining a stronger 'social licence' to operate and increased asset (i.e. share) values etc.

The role of government is to establish a framework that promotes improved industry-wide viability in the medium to longer term – not to maintain or improve the profitability of individual shareholders.

While it would be ideal to have firm costings for each option, NSW DPI is unable to provide definitive advice on the actual costs that would be payable. This will be influenced by a wide range of things including: the final design of the linkage options; if a quota scheme is pursued, the number of shares held; the number of shareholders remaining; the adoption of technology (e.g. the IVR, smart phone apps and/or VMS etc) to reduce enforcement costs; streamlining current controls and the new cost recovery framework once implemented. Speculating on specific management costs payable by shareholders at this point in time would be misleading.

The best approach at this stage is to give a general indication of the relative costs of the various linkage options having regard to the likely future research, management and compliance needs associated with each.

Refining current management arrangements

A significant part of the reform program is to streamline current management arrangements.

Refining management arrangements dependent on share linkage

Scope to streamline current management arrangements is in some cases dependent on the form and strength of the management framework or linkage proposed to be pursued.

Table 22 (Appendix 2) shows the streamlining proposals for which the form and strength of share linkage is important. It also shows whether or not the proposal is supported by the various linkage options that have been short-listed by the Share Linkage Working Group to date.

Controls that may be refined regardless of share linkage

Streamlining the following current management arrangements is not so dependent on the form and strength of the management framework or linkage proposed to be pursued.

Maximum shareholdings: The current default maximum shareholding of 40% of the shareholding 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. This will streamline administration and reduce the longer term management costs. A new maximum shareholding could be introduced in the future if an unacceptable consolidation of shares becomes evident.

Net Registrations: Under the current management controls all nets used in the ocean haul hauling net fishery must be registered. The net registration freeze is a barrier to entry to the fishery (or parts thereof). If net registrations were removed, more descriptive net descriptions may be required in regulation to ensure the gear being used in the fishery is suitable.

Foreign ownership restrictions: It is proposed that the restrictions on foreign ownership of shares be removed on the basis that there is negligible to nil risk of a significant foreign ownership of the relatively small scale fisheries in NSW. Foreign ownership is also an issue managed by the Commonwealth, not the States. This will streamline administration and reduce the longer term management costs.

Registering 'eligible fishers': The requirement to register 'eligible fishers' against fishing businesses is being removed as part of the development of FishOnline, which will automatically check that nominated fishers are already licensed. This will streamline the nomination process.

Boat licences: Under a species catch quota regime boat licences would no longer be required to [indirectly] manage catch, except if there were many other non-quota species taken in the fishery that would otherwise be subject to unacceptable increases in fishing pressure if the general size of boats increased over time. The same principle applies under an effort control regime (days etc.) if there is a regime that establishes a strong relationship between effort and catch. Removing boat licences presents a range of administrative and business efficiencies, including reduced paperwork and ongoing licensing costs for fishers.

The main issue to consider is whether there will be an ongoing need to cap boat capacity in the fishery. Given that boats can already be upgraded to 6 metres for GPHN and 20 metres for PAB (by acquiring a suitable boat licence), the main issue requiring consideration is the future use of boats greater than these lengths in the fishery.

OG1 notations on boat licences: OG1s play little part in the management of the Ocean Haul Fishery and, as such, could be considered for removal (along with boat licences).

Discussion required: The Working Group's view is sought on the option of removing the requirement for boats used in the PGHN and PAB fisheries to be licensed. In considering this, the future use of boats greater than these lengths in the fishery will need to be discussed.

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Appendix 1

Table 22 Comparison of share linkage options

Issue	Minimum shareholdings	Days Quota	Catch quota
Government interests			
Within powers of Act	Yes	Yes	Yes
Can be administered	Yes	Yes	Yes
Can be enforced	Yes	Yes	Yes
FishOnline compliant	Yes	Yes	Yes
IVR compliant	Not applicable	Yes	Yes
Promotes voluntary compliance	No	Yes	Yes
Manages catch	Indirectly (weak)	Indirectly (stronger)	Directly, for quota species only
Can be used to respond to sustainability or resource sharing issues	Indirectly (weak)	Indirectly (stronger)	Directly, for quota species only
Shareholder interests			
Secure share of catch	Minimal security	Moderate security	Highest security
Investment confidence	Lowest confidence	Moderate confidence	Highest confidence
Scope to tailor access	No	Yes	Yes
Scope to tailor fees	No	Yes	Yes
Scope to tailor fees	No: flat fee	Yes: pay per share	Yes: pay per share
Fish more efficiently	Subject to adjustment target and relaxation of input/effort controls	Subject to days allocated and relaxation of input/effort controls	Yes
Value of rights	Lowest value	Moderate value	Highest value
Remove input controls	Limited scope	Moderate scope	Maximum scope
Addresses public perception issues	Generally yes, depending on the issue	Generally yes, depending on the issue	Yes
Ongoing adjustment (for viability)	Yes: forced on an as needs basis	Yes: autonomous and can be stimulated on as needs basis	Yes: autonomous and can be stimulated on as needs basis
Estimated relative cost of scheme	TBD	TBD	TBD
Cost per shareholder	No choice: all shareholders pay the same.	Decided by shareholder: costs proportional to shares held	Decided by shareholder: costs proportional to shares held

Discussion required: Opportunity will be provided for the Working Group to review the comparison table above, which will be an important part of the paperwork to be put to shareholders for comment.

Appendix 2

Whilst some linkage options may provide for the removal of a control, this will in some cases be dependent on:

- How conservative the ITCAL is; and,
- Whether catches are monitored and strategies exist to offset any unsustainable increases in catch (e.g. reducing the ITCAL).

The following symbol has been used to denote where this is an issue: 

Table 23 Streamlining proposals and whether the linkage options short-listed to date support their removal or relaxation

Current control	Minimum shareholdings	Days Quota	Catch quota
Remove fishing businesses as an effort control	Only once adjustment target is met	Yes 	Yes
Allow shares to be transferred to any person	Only once adjustment target is met	Yes 	Yes
Remove minimum shareholding requirements	No	Yes, but suggested they be retained to stimulate adjustment should the number of endorsements in a sector need to be reduced to maintain/improve viability	
Remove 48 hour restriction applying to nominations ¹	Yes 	Yes	Yes
Remove boat capacity restrictions	Yes 	Yes	Yes
Remove or relax seasonal restrictions	Yes 	Yes 	Yes
Remove or relax weekend and public holiday closures	Yes 	Yes 	Yes

Discussion required: Opportunity will be provided for the Working Group to discuss the streamlining proposals above and where necessary firm up the details of any such proposals to be put to shareholders for comment.

¹ This change is occurring as part of the development of FishOnline.