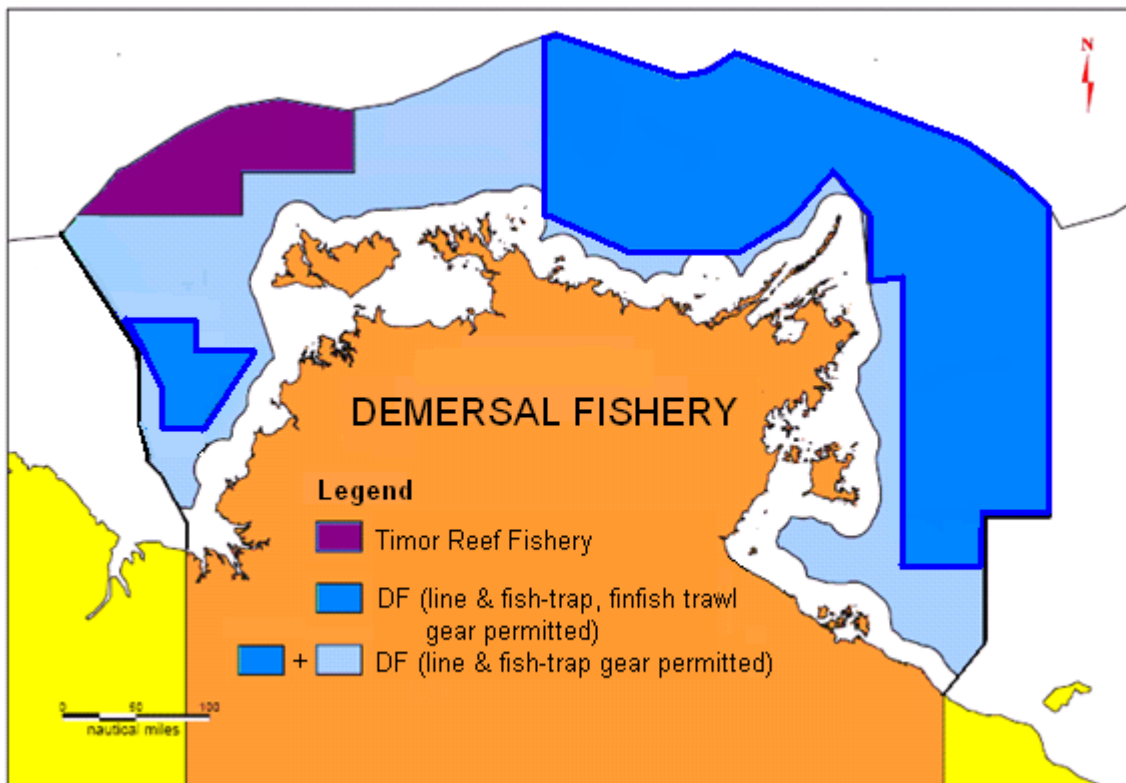


MANAGEMENT ARRANGEMENTS FOR THE NORTHERN TERRITORYS

Demersal Fishery (DF)

The fishery covers all Teleost (bony fishes) species taken by approved methods in the Demersal Fishery (refer introduction section for more details)



(Figure 1.)

INTRODUCING AN INDIVIDUAL TRANSFERABLE QUOTA MANAGEMENT FRAMEWORK

February 2012

Explanatory notes. (Refer Appendix 2 for more detailed terminology definitions)

- Each current licence at the commencement of the amended Regulations will be granted equal numbers of FISHERY UNITS (or shares) for each of the combined species groups in the fishery.
- QUOTA UNIT allocation – the issue of quota units (i.e. an amount of fish of a particular species group allocated (in kgs) to a licensee), is based on the entitlement (fishery units) of the licence for that licensing year.
- Permanent transfers (selling) of fishery units may occur.
- Quota units have a nominal 'life' of twelve months and are considered a separate entity to fishery units, when a quota unit is 'transferred' it is actually 'sold', similar to a fishery unit.

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INTRODUCTION / BACKGROUND

The Demersal Fishery (DF) and Finfish Trawl Fishery (FTF) are limited entry, offshore demersal snapper fisheries with an area of approximately 100,000 nm². The fisheries share significant fishing area and are currently managed via input controls, utilising semi-demersal trawl, traps and hook gear to harvest largely red and goldband snappers, along with a number of associated finfish species. The two fisheries share sustainable harvest targets of 2500 tonnes (t) for red snappers and 400t for goldband snappers.

The Department, at the request of Demersal Fishermen's Association and Finfish Trawl Licensee Committee, has introduced primarily output (catch based) controls as opposed to the previous input (gear based) controls into the management arrangements in order to ensure and maintain sustainable catch levels and to provide certainty, economic efficiency and flexibility for operators. This has been developed concurrently with the establishment of a suitable mechanism to increase finfish trawl gear effort in order to assist sustainable utilisation of the remaining undeveloped areas of the Demersal Fishery.

Fisheries note that demersal fishers have continued to target higher valued goldband snapper which have a much lower harvest target (400t) than red snappers (2500t). The recent growth in goldband catches, particularly in the area adjacent to the nearby Timor Reef Fishery (TRF), is of potential concern. Under the previous management arrangements, if the number of demersal licences issued (60) became active the capacity exists to quickly reach or exceed current harvest targets. That could jeopardise the biological sustainability of the fishery and impact on its optimal operation.

Total allowable catches are a management tool used to provide biological protection of fisheries. Once any of the annual quotas have been taken the fisheries are closed. By setting a Total Allowable Commercial Catch (TACC) and allocating it to fishermen as Individual Transferable Quotas (ITQs), rights over a proportion of the catch are established. Market forces distribute the quota among those fishermen who value the rights most highly and are able to use the resource most efficiently. Because quota holders are guaranteed a proportion of the catch, they no longer need to compete for their catch and can concentrate on taking their share using the most economically efficient means. In this way, ITQs facilitate autonomous adjustment of fleet size and fishing operations.

The fishery covers all Teleost (bony fishes) species taken by approved methods. Other species taken as genuine byproduct while using approved methods may be retained (i.e. species that are not targeted by fisheries operating under a Commonwealth permit or as agreed under the Offshore Constitutional Settlement (OCS) for this fishery). Catch excludes certain no-take species defined under NT Fishery Regulations.

Management responsibility for the fisheries is shared by the NT and Commonwealth via the Northern Territory Fisheries Joint Authority (NTFJA). Approval has been granted by the NTFJA to implement the new management arrangements.

At the request of Industry, the NTFJA has given 'in principle' support, subject to satisfactory outcomes for government regarding any increased costs for management, research and compliance, for the formalisation of current harvest targets and the introduction of Individual Transferable Quota (ITQ) into the management arrangements of the DF and FTF. The NTFJA encourages rationalisation of the two fisheries in order to assist sustainable utilisation of the offshore demersal snapper grounds and to assist with this aim, has approved additional finfish trawl effort being introduced. The NTFJA is also supporting the removal of the goldband snapper area adjacent to the Timor Reef Fishery east to 133 degrees 16 minutes E and provision of alternative finfish trawl fishing areas (refer figure 1).

The FTF has been abolished and the existing FTF licence holders have been amalgamated into the restructured DF. Nominated areas allowing use of multiple gears (vertical line, drop-line, finfish long-line, fish-traps and finfish trawl gear) have been allocated (see dark blue areas on page 1 map for details). Some of the additional areas open to trawl fishing overlap with parts of the Commonwealth managed Northern Prawn Fishery (NPF). To ensure both fisheries effective quota management,

interaction between the fisheries needs to be monitored. Some additional management in specific areas may be deemed necessary to prevent potential negative impacts to the area. As improved stock assessment information becomes available, it may be necessary to implement additional management arrangements in the future. The exact scale of these proposed management arrangements will be dependent upon outcomes of stock assessments and discussions with Commonwealth fisheries agencies, Department of Sustainability, Environment, Water, Populations and Communities (SEWPaC) and other resource users. To allow for cost effective monitoring of the DF fleet, Fisheries has introduced a Vessel Monitoring System (VMS), which includes operators in the TRF in order to provide adequate coverage and reduce overall operating costs (refer section 10.1 for details).

This document describes the framework for the new management arrangements as developed by the Offshore Snapper Advisory Group (OSAG) for implementation by Government. It is important to note a previously explored Expressions of Interest (EOI) option included key criteria which recognised existing licence holder's entitlements through establishment of a funded licence buyback scheme. During an earlier consultation period feedback from within and outside the fishery expressed concerns over various elements of the EOI option. The comments received were carefully considered and upon reviewing legal advice to the EOI option the current approach to achieving the NTFJA's goals was developed as the most appropriate way forward. The key goals remain long-term protection of goldband snapper habitat and sustainable use of the offshore snapper resources whilst maintaining licence holder entitlements throughout the restructure process where possible.

The intention of the document is to outline policy guidelines which would assist implementation of the new management arrangements. In proposing legislative change for the current DF and FTF, it was important to recognise outcomes from research projects between the NT and other jurisdictions, ie: Northern Australian Red Snapper Harvest Strategy framework, which may have a future impact on sections of the proposal. Additionally, in reassessing the export accreditation of the fishery, SEWPaC may impose changed or additional conditions aimed at addressing the fisheries impact on the environment.

FRAMEWORK PROVISIONS

There are three main components to a quota structured fishery, the 'permanent fishery unit' (Fishery Unit or ownership share), the annual 'catch allocation' (Quota Unit or ITQ) and the 'licence to fish'. Within these three components lie a number of elements which permit the fishery to operate in a practical and sustainable manner.

A licence is required for a person to take fish for commercial purposes in accordance with Section 10 of the Fisheries Act. The licence is an authorisation to undertake an activity subject to the *Fisheries Act 1988*, Fisheries Regulations, Management Plans or licence conditions. Licences to fish sit outside the ITQ process to some extent. It is important to note that any financial 'value' a licence may have under the current management arrangements is likely to shift from the licence, to a licence's fishery units and allocations under this proposal. That is, the market will trade in fishery units and ITQ's and there may be little value placed on an existing licence as there will be minimal restrictions on the issue of new licences.

The number of new licences issued need not be restricted providing whole of fishery bycatch limits and overall ecological impacts of fishing are adequately addressed. Sustainability of stocks within the fishery will be maintained via enforcement of proposed risk-based performance indicators (described in appendix 1) and the annual catch allocation as described throughout this framework.

Fisheries has developed a mechanism to assign a specific sustainable TACC to all retained species (as group quota) other than those already under a TACC in order to reduce compliance costs to licensees and ensure sustainability for minor species. It is intended the Group TACC will be distributed pro-rata, as group fishery units, equally to all DF unit holders (refer section 1 for details).

Criteria have been proposed to enable DF licence holders to use finfish trawl gear in the multi-gear use zones. It is proposed that appropriate red snapper, goldband and group quota unit holding amounts and additional monitoring would be required as well as a solid commitment to participate in essential planned research projects (e.g. regular assessment surveys).

Note; those additional costs (remaining after sale of survey catch) for the proposed surveys are anticipated to be offset by all fishery unit holders in the proposed DF and TRF. These main essential criteria are to be addressed prior to a trawl gear application being considered by Fisheries.

1. Total Allowable Commercial Catch (TACC)

This document is focussed on the harvest of finfish by the commercial sector only, as there is currently little significant interaction with other resource user groups (e.g. Amateurs or Fishing Tour Operators) in the fishery. However, the introduction of the TACC mechanism (which may be conservative in terms of possible TAC) allows for consideration of potential resource allocation issues in the future, i.e. scope remains for any sector allocation issues to be considered in the future.

Fisheries notes that when not all of a fisheries landed catch comprises quota species, 'offshore' and 'onshore' compliance monitoring needs become more complex (i.e. an individual's capacity to deceive or conceal quota species increases). Currently, a dedicated 'offshore' compliance capacity for these limited entry fisheries is not considered to be necessary because there are no individual catch restrictions. The current risk to sustainability is deemed low because licence numbers are limited and existing gear restrictions effectively restrict productivity. The risk assessment is to be reassessed under a quota management framework. However, it is anticipated that with the necessary additional checks and balances in place (see Appendix 1), that the introduction of quota management will provide for better environmental outcomes for the fishery and improved economic performance for operators.

The TACC setting for combined goldband snapper species has been examined with careful consideration of the relatively low proportions of 'prime' goldband habitat when compared to red snapper habitat type and of the successful fishing activity undertaken in areas adjacent to the TRF and eastward across the Arafura Sea. In recognition of these considerations, along with currently available scientific advice, Fisheries has determined that at this time the commercial fishery share is an allowable catch of 400 tonnes for combined Goldband snapper species (*Pristipomoides multidens*, *Pristipomoides typus*, *Pristipomoides filamentosus*), and 2500 tonnes for combined Red snapper species (*Lutjanus malabaricus*, *Lutjanus erythropterus*). Additionally, to simplify compliance needs and to assist in reducing monitoring costs, a TACC has been determined for all other retained (group) species of 915 tonnes. The quota management framework provides for a review of quota limits based on evidence. Therefore, either increases or decreases to the quota limits may be warranted in time if they do not put the sustainability of the resource at risk.

Provided here is a brief explanation of the background information used to calculate the Group TACC. Goldband fishing methods can be quite targeted operations due to the species preferred habitat range and schooling nature. Historically, these methods have caught an average of ~8% (fisheries datasets 1995-2009) of additional species. This proportion should be considered when determining the amount of Group TACC.

Also considered in the context of assigning a group TACC were comments received from industry members advising that operators may intend to develop the shallower redfish sector of the fishery and potentially utilise different gears. Red snapper fishing methods vary due to the species broader habitat range and have a higher additional species catch of up to ~24% (fisheries datasets 1995-2009). This proportion should also be considered when determining the amount of Group TACC.

Note, DF and FTF triggers of 10% and 35% of the annual combined catch for total group (all other retained) species respectively, has been agreed with SEWPaC as a suitable trigger in assessing the ecological sustainability of the fishery.

The proposed Group TACC should not unduly inhibit fishery development and should enable operators who wish to operate in the fishery sufficient access to available group quota. Additionally, it is proposed to introduce a mechanism to identify, evaluate and if possible, set individual TACC for any dominant species which emerges through changing fishery practices in the future (note sections 2.1, 2.2).

These factors have been carefully considered by Fisheries along with recognition of scientific knowledge gaps surrounding most species included in the group. The decision rules developed for the fishery (Appendix 1) have been amended to ensure that TACC setting remains appropriate as the fishery develops. These amendments will align with daily logbooks being lodged at the completion of each trip, not monthly as is the case now. When required, additional single species safeguards would be incorporated into the decision rules to meet Fisheries environmental obligations.

The DF total Group fishery units would initially be distributed equally to each demersal licence. After initial allocation, individual operators would have to transfer quota to ensure they held adequate quota to suit their intended fishing operations. Operators would have the capacity to source additional group quota from other group quota holders in the fishery as required to meet trip minimum holdings.

The proposed changes to the fisheries management arrangements trigger a need to inform SEWPAC and the fishery will then need to be re-evaluated by SEWPAC to ensure maintenance of environmental sustainability.

1.1 Setting the TACC

Under Fisheries legislation, the Minister for Fisheries is responsible for setting a Total Allowable Commercial Catch (TACC) and may, before the start of each fishing season, review and/or determine the TACC for each quota species / or species group. In reviewing and/or determining the allowable catch the Minister may consider:

- The adequacy of government stewardship of aquatic resources promoting fairness, equity and access to aquatic resources by all recognised stakeholder groups
- the agreed decision rules
- information given by the Offshore Snapper Advisory Group (OSAG), and any subsidiary Committee if established
- information about the sustainability of marine species in the area of the fishery
- potential impacts from other community sectors
- the reference points set for the stocks of quota species
- the precautionary principle; and
- any decision made by the Executive Director of Fisheries ('the Director') or the NTFJA

The proposed Regulations shall describe the parameters for determining TACC's, and the annual TACC may be prescribed by the Minister in those regulations. The TACC will remain as set by the Minister until the Minister determines a new TACC. If the Minister for Fisheries does not set a new TACC prior to a fishing season, then the TACC set for the previous season will continue to apply.

The Director may develop decision rules and management actions for confirming the TACCs and associated management arrangements in the fishery. The decision rules, if appropriate, should be included in the regulations and include at a minimum, performance indicators, trigger points and management actions covering:

- monitoring the fishery effectively and minimising high grading / discarding
- maintaining and providing confidence in TACCs
- maintenance of bycatch within acceptable parameters
- review of retained and non-retained catch composition
- interactions with threatened, endangered, protected or listed species

- effects of fishing on the ecosystem

In approving any decision rules the Director may consider:

- information given by the Offshore Snapper Advisory Group (OSAG), and any subsidiary Committee
- the total estimated catch by commercial, recreational, indigenous fishers and any other users of the fishery
- information about the sustainability of marine species and ecosystems in the area of the fishery and conformity with the *Environmental Protection and Biodiversity Conservation Act* (the *EPBC Act*)
- the reference points set for the stocks of quota species
- the precautionary principle; and
- any decision made by the Minister

2. Initial Access and Allocation

On establishment of the NTFJA in 1995, eligibility of existing Commonwealth permit holders to participate into the future was determined on proper grounds. Those eligible permit holders were granted access into the new NTFJA fisheries. This framework does not provide for a reconsideration of previous access allocations.

Therefore, only those licences current immediately prior to the commencement of the new Regulations will transition into the proposed DF. To maintain and recognise a current licence holder's entitlement, each demersal licence holder at the commencement of the new regulations will be granted an equal allocation of fishery units (or shares) for each combined species group allocated to the DF. The equal allocation mechanism is derived from recommendations from Industry and is independently supported by the vast majority (95%) of individual DF licence holder's.

There are currently 60 licences in the DF, and 1 FTF licence. These two 'offshore' fisheries historically share a combined commercial harvest target of 2500t red snappers and, more recently, 400t goldband snappers. In recognition of the historical average harvest levels of the finfish trawl fishery subsequent to the revised NTFJA in 1995, Industry have requested the FTF is allocated 800t of red snapper and 40t of goldband snapper from the shared harvest targets with the remainder being distributed equally between each DF licence holder.

The number of fishery units issued to the DF unit is as follows:

Combined Goldband snapper species	360,000 fishery units
Combined Red snapper species	1,700,000 fishery units
Combined Group species	631,000 fishery units

The numbers of fishery units issued to the FTF unit are as follows:

Combined Goldband snapper species	40,000 fishery units
Combined Red snapper species	800,000 fishery units
Combined Group species	284,000 fishery units

The number of fishery units will initially be equally allocated to each of the sixty DF licences as follows:

Combined Goldband snapper species	6,000 fishery units
Combined Red snapper species	28,333 fishery units
Combined Group species	10,516 fishery units

2.1 Development of a Future New Target Species

The species group categories for initial fishery unit allocation encompass all retained catch from the entire fishery, ie: major target species or species groups as well as all lesser species or species

groups. All of the lesser species or species groups are incorporated in the combined Group species category.

If, in the future, it is identified by Fisheries or through the annual review of catch composition (refer section 8.4 for catch composition guidelines) that a particular species or species group within the combined Group species category is becoming dominant, that species or species group may be referred to a science-based Fishery Advisory Group (FAG) for assessment. If the FAG considers there is adequate information on the species, it may recommend to Fisheries that the species or species group may be allocated a TACC. Alternatively, Fisheries or the FAG may determine there is insufficient information to move the species or species group to the target category and it remains in the Group species. However, Fisheries or the FAG may recommend that a focused research program be established to gather the information required to reassess the species or species group.

A recommendation for this species or species group to be nominated for target species status would be made to the Executive Director of Fisheries and, if approved, referred to the Minister for consideration. If the Minister agrees then the new target species could be allocated a nominal block of fishery units (e.g. 100,000 fishery units). The fishery units would be allocated pro-rata between the holders of a licence based on their group fishery unit holdings at the next annual allocation review. If a species is allocated target species status, the Fisheries or the FAG will also review the appropriateness of the Group species TACC. For an example, refer section 12.

The new quota allocations would be made pro-rata based on a licensee's group fishery unit holdings at the next annual allocation review, ie. May – June, in time for 1 July, the start of the new fishing/licensing/quota year. An example of how this could occur is as follows. To determine a licence allocation, the licence's total group fishery units held (e.g. 10,516) are tallied and divided by the total group fishery units issued in the fishery (e.g. 915,000 units) = .01149. This figure is multiplied by the new species TACC (e.g. 100,000 units) = licence holders fishery unit share of the new species TACC (1,149 units).

Minimum holdings for the new species group will also be determined at this time based on catch composition. For information on how minimum holdings are determined, see section 8 for details. This capacity to expand total catch limits may encourage continued exploration and product development in the fishery.

2.2 Process to Develop a New Species

Fisheries recognises Industry comments relating to issues faced by an operator when evaluating a new venture to target a specific demersal species by changing bait type, modifying hook sizes or carrying out approved changes to hook and trap gear configuration. Dependent upon the target species sale value, a major inhibiting factor identified in an operator's business plan is likely to be the cost of purchasing sufficient Group ITQ to make the venture viable. If the value and / or expected quantity of a new species were such that a large amount of Group ITQ was required, the amount of Group ITQ available for lease from the fishery, at an acceptable price, may be insufficient for the operator's requirements.

This issue could be overcome by establishing a process where the operator can harvest the new species outside the Group TACC framework.

In order to address Industry's issue and encourage sustainable development, Fisheries proposes to enhance the capacity for a fisher to be able to outline his proposal to Fisheries for assessment. Providing any species or ecosystem sustainability issues can be addressed, Fisheries will collaboratively develop an operational plan, with a complementary monitoring plan to implement the fisher's proposal.

A key variation to the normal quota process would be that the particular species will be permitted to be harvested outside of the group TACC framework for the duration of the permit. Minimum Holdings for

all other species, including group species, but excluding the new target species, would still apply. This should allow the operator to evaluate the feasibility of the proposal without unnecessary constraints caused by the introduction of group quota to the fishery.

If the new species can be evaluated as satisfying the conditions for a sustainable harvest level, the mechanism described in section 2.1 can be applied in allocating TACC pro-rata based on a licensee's group fishery unit holding.

2.3 Review of Multi-gear areas

The exact placement of multi-gear areas within the Demersal Fishery has been determined through consultative processes and endorsed by OSAG and the NTFJA. However, it is likely that boundaries will require adjustment as the fishery evolves under the new scheme. The Offshore Snapper Fisheries Advisory Committee (OSFAC), a stakeholder-based committee that replaced the schemes development and establishment Group (OSAG) as the peak advisory body to the fishery, has recently considered this scenario.

Any changes to the existing boundaries would require OSFAC to consider potential cross-sectorial impacts and assess the area being considered to evaluate its potential impact on catch composition, other users, fisheries and the ecosystem. Additionally, a review of the decision rules would be required to ensure impacts of any proposed changes (e.g. localised depletion etc.) were appropriately addressed.

3 Individual Transferable Quota (ITQ)

ITQs are the annual allocation of quota units to an individual based on that person's fishery unit holding in the fishery. ITQ's for each quota species group would be allocated proportionately to fishery unit holders based on how many fishery units of a particular fish species group they hold. The fishery unit holder must also be the holder of a current fishery licence to be eligible for ITQ allocation. Methodology using the Industry agreed allocation method to determine the amount of quota units allocated to a fishery unit and to an individual is as follows:

The TACC of a particular species group will be allocated to fishery unit holders commensurate with their share of particular species group units within the fishery unit. For all species groups the allocation method is the same and can be calculated as follows:

- (a) *To determine the amount of a fish species ITQ (in Kgs) allocated to one fishery unit = TACC of a fish species (in Kgs) / Total number of a fish species units in the fishery*
- (b) *To determine a Fishery unit holders total quota unit allocation = (Number of a fish species group fishery units held / Total Number of a species group units in fishery) X TACC for a fish species group (Kgs). Note: partial numbers to be rounded to the nearest whole number.*

As described in section 1.1, the TACC for a fish species group may vary and if amended, the ITQ amount (as determined by (b)) will vary. However to reduce any confusion, one quota unit will always equal one kilogram of the combined species group to which it refers.

4. Licensing

A fishing licence currently provides access to the fishery for licensees, subject to provisions in the Fisheries Act and additional management arrangements in place for that fishery. To assist in the administration within NT Fisheries, unique licence numbers are used as the lynchpin holding the various identifying elements of a complicated structure together. A number of elements, such as party, contact details, vessels, gear, catch and effort logs, fishery units and quota, any special catch or gear conditions and crew are linked to the licence within the database mainframe. The fishing licence is a

mechanism that can be used to control multiple species, bycatch (discards) and gear impacts on the ecosystem. Licences are fully transferable in both fisheries.

Currently, a fishery licence number consists of two parts. One part is an identifier for the fishery, in the case of the demersal fishery A6, and for the finfish trawl fishery A16. The other part is a unique two to four digit licence identification number, the highest being 1875. When used to identify a demersal licence, the number may be displayed as an A6/1xxx series.

All licences current immediately prior to the commencement of the new Regulations will be transferred into the new Regulations. In the case of the existing finfish trawl licence, the fishery identifier is proposed to be changed from A16 to A6. The trawl licences unique identifier (i.e. the last four digits) will not need to change and the existing licence, when renewed under this scheme, will maintain its current gear endorsements.

Additionally, it is proposed that a new entrant who is purchasing **fishery units or quota units** in the fishery shall simultaneously apply for and, if the current legislative conditions (please refer S11, Fisheries Act) for the issue of licences are met, the Director shall issue an **A6/1xxx** series licence to the new entrant.

All licences will stipulate an agreed minimum holding (refer section 7 for minimum holding details) of quota units before any fishing may commence. Additionally, all licence categories will continue to allow for nomination of one vessel, using certain specified fishing gear. A DF licensee may apply for and hold more than one DF licence.

5. Gear Approvals

Licence conditions will allow a DF licence holder to use certain nominated gears which are specified as conditions on the licence. Each DF licence will be approved for Vertical line, Dropline, Finfish longline, Fishtrap and Finfish Trawl if criteria for use of the gear are met by the licence holder. The criteria for approval of the fishery's gears are proposed as follows:

- **Vertical line, Dropline, Finfish longline and Fishtrap** – minimum trip holdings (see section 8 for details) and compulsory longline vessel monitoring (refer Appendix 1). Additionally, recognition of a licence holder's commitment to participate in a proposed ongoing survey program agreed to by industry will be required.
- **Finfish Trawl** – minimum quota unit holdings of 400t of Red snapper, 20t of Goldband and 100t of Group species, demonstrated each licensing year at renewal time as a condition of the annual licensing and gear endorsement process, minimum trip holdings (see section 8 for details) and compulsory vessel monitoring (refer Appendix 1). Additionally, recognition of a licence holder's commitment to participate in a proposed ongoing survey program agreed to by industry will be required.

The line and fish trap approvals would allow the holder to use those gears in all parts of the DF (refer map page 1). The finfish trawl approval would allow the holder to use that gear in the multi-gear areas only.

Whilst it is not government's intention to unnecessarily impede the number of finfish long-line or trawl vessels approved, consideration must be given to the potential impacts of these gears on the environment. The NTFJA will necessarily take a precautionary approach, in accordance with the principals of the *Fisheries Act (1988)* and will regularly monitor and review the impacts of finfish long-line and finfish trawl effort.

It is anticipated the proposed levels of commitment will encourage environmental standards to be maintained by all licence holders. Additionally, a high initial level of quota unit holdings may encourage

any new trawl operator to develop and maintain product value and enhance quality of his products to the benefit of the community.

Participation in a proposed ongoing survey program will also be required. It is anticipated that this will be conducted throughout the DF fishery and will be designed to gather important age structure data to provide confidence in the TACC's. As the surveys will provide surety and benefit all licence holders, additional survey costs not recovered through sale of catches will be shared pro-rata between all licence holders based on fishery unit holdings. As a joint beneficiary, the Timor Reef Fishery (TRF) may be included in the survey program and will be asked to share non-recovered costs along with DF operators.

6. Transfers

6.1 Licence Transfers

Licences issued under Fisheries Regulations 102 or 141L (subject to Reg.141M) are currently fully transferable. This capacity is not required under a quota system as there will be no restrictions on new licences issued. Licences will not be transferable under the new proposal. Licences currently in the fishery will be transferred into the new Regulations framework and will provide for the initial allocation of fishery units. Note the proposed changes to the existing Finfish Trawl Fishery licence to a new DF licence (A6).

A key difference under this proposal is that there will be fishery units attached to the licences which entitle the licence holder to an annual quota unit allocation. Minimum quota unit holdings (refer section 8) for each of the species are required for the licence holder to enter the fishery (i.e. go fishing). The requirement for minimum holdings is recognition that as demonstrated historically the proposed quota target species cannot be caught in isolation from other species and will therefore minimise discarding. The level to which minimum holdings are set is important as the appropriate level will minimise incentives for high-grading of target or high value species.

6.2 Permanent Fishery Unit Transfer

A licence holder's fishery unit may be sold (i.e. permanently transferred) subject to the following conditions pertaining to the transfer of fishery unit. Note, if the licence holder sells ALL his fishery units he will not be entitled to receive any future allocation of quota units. The new holder of the transferred fishery unit will not have any quota units issued until the next licensing period.

The minimum amount of fishery units that may be sold is undecided but will depend on the varying cost of administration to transfer one or a set amount of fishery unit. A fishery unit holder may sell some of, or their entire fishery units. Note the sale of fishery units may attract stamp duty obligations.

6.3 Quota Unit Transfer

Under this proposal, quota units are considered to be a separate entity to fishery units. Once they have been allocated to a licence, they have a nominal 'life' of the licencing period in which they were issued (i.e. one licencing year) and as such quota units may be transferred. A quota unit holder may transfer some or their entire quota unit allocation. Note: as quota units only have a nominal 'life' of twelve months, they may be transferred only within the licensing year to which the quota unit relates. A new entrant to the fishery must apply for, and be approved, a demersal licence simultaneously for the transfer of quota units to be approved.

To encourage stewardship of the resource, quota unit transfers will be restricted when holdings (i.e. quota linked to a finfish trawl gear endorsement) are below the agreed criteria levels (refer section 5 for criteria details). The intent of this restriction is to prevent uncommitted operations. Note: A licence holder may apply to the Director for an exemption to this restriction if special circumstances prevail

(such as illness, vessel breakdown etc.). Note: granting of this exemption will remove the finfish trawl gear endorsement from the licence.

6.4 Undercatch

Undercatch (Carry over) provides relief to operators who encounter circumstances, within a fishing season, which prevent them from taking their quota for a species. Undercatch provides flexibility to take into account the variations in abundance and availability of individual species in this multi-species fishery.

As there is a delay between when the previous years fishing ceases and when all catch information is entered into the database, carryover is not able to be calculated until the last week of July. A licence holder will be notified of quota unit carryover amounts and holdings will be accessible for viewing on the web once the process is completed.

Note that to be eligible to receive carryover, a person must hold a current DF licence. In the case of a licence holder who only held quota units in the fishery in the previous year, and who has eligible carryover, the licence would need to be applied for and approved before any carried over quota units could be transferred to the licence. The licence holder has until December 31 to have the licence renewed and receive the carryover.

Given industry structures and practices, retaining a minimal level of undercatch for operator flexibility would seem appropriate. Undercatch arrangements may be utilised if the Director of Fisheries has set a % for the particular species group in that licensing year. The Director of Fisheries will review and set the undercatch % for each species group at licensing time.

Undercatch arrangements would be set in conjunction with TACC's for a fishing year. Any quota unit undercatch amount taking advantage of these arrangements is to be acquitted first and is valid for that year only i.e. carried over quota units are not eligible for carryover the following year..

Quota holders are authorised to carry over eligible ITQ that is not taken during the current fishing period to the next fishing period, up to a maximum TBA% of the sum of his annual quota unit allocation if applicable, plus any additional quota units purchased during the year, less any transfers. (See working example in section 12)

7. Permitted fishing gear

At the commencement of the new plan, licensees will be entitled to use the gear currently permitted in the fishery (vertical lines, droplines, fish-traps and finfish trawl gear). There are no limits to the numbers of fish-traps, vertical lines or drop lines a fisher may utilise. Each demersal licence would be endorsed to utilise vertical lines, droplines and fish-traps in the fishery. The existing finfish trawl licensee would additionally be endorsed to utilise finfish trawl gear in the fishery if entry criteria are met (section 5). Maintenance of finfish trawl gear endorsements would be subject to the licence holder meeting certain holdings criteria each year upon licence renewal (entry level minimum holdings etc). To maximise stewardship of the finfish trawl gear licence condition a restriction on quota unit transfers is proposed (section 6.3)

Developmental trials of finfish longline gear have been conducted in the DF and nearby TRF and the potential impacts of this gear have been evaluated as being sustainable with significant additional monitoring to ensure maintenance of the decision rules (appendix 1). The potential impacts on the fishery's catch composition, other fisheries using demersal longlines such as the Offshore Net & Line Fishery and the ecosystem are deemed to be acceptable. Whilst it is not government's intention to unnecessarily impede the number of finfish long-line or trawl vessels endorsed, consideration shall be given to the potential impacts of this gear on the environment. A 2mm diameter limit on mono snood thickness is regulated for finfish longline.

Any information collected from intensive monitoring of this gear shall be analysed annually by Fisheries and outcomes discussed at the next review and relayed to the OSAG.

All gear types will be subject to minimum trip holdings of ITQ for the gear type before being permitted to enter the fishery (refer section 8 for details). The inclusion of bycatch reduction devices (BRD) into finfish trawl gears is currently being trialled. Dependant on a satisfactory outcome from these trials, BRD's may become a compulsory part of the gear at the start of these arrangements.

The development of alternative or innovative gear types in the fishery is encouraged and all new gear being proposed for trial in the fishery will be subject to approval by Fisheries. Validated fact finding trials would then be conducted on the gear by the operator to evaluate its potential impacts on the fishery's catch composition, other fisheries and the ecosystem.

8. Minimum trip holdings

Taking in excess of allocated quota not only undermines the principals of the NT *Fisheries Act*, it also affects the value of other operators' holdings. Non-compliance presents a significant and ongoing risk. Minimum holdings are deemed to be a cost-effective mechanism used to reduce the incentive for high-grading, discarding and for managing access to lesser species in the DF. A lesser advantage is to address excessive quota splitting resulting in too many vessels operating on fishing grounds and to reduce administration costs of servicing and policing many smaller quota holders. Minimum holdings also reduce compliance monitoring and analysis costs and assists with over quota and subsequent reconciliation procedures. Minimum ITQ (quota unit) holdings, when used in this context, means a predetermined level of quota that must be nominated against a licence and vessel before fishing can commence.

Important note

You must hold sufficient quota to cover your entire catch for each trip. The onus is on licence holders to ensure that they check their Quota balance thoroughly and report any discrepancies or errors to DOR. DOR may vary or amend a concession holder's entitlements in the current or subsequent years for any overcatch not balanced with uncaught quota, or discovered following conviction, or where DOR has reason to believe that catches were misreported. Licence holders may also face administrative penalties where catches have exceeded their quota holdings for lesser amounts of up to 100kg during the fishing season.

To ensure effectiveness the amount of minimum holdings generally represents one and a half times the amount of fish that could be expected from a productive trip. Additionally, the makeup of the minimum holdings quota should represent the types of species the operator is likely to catch while fishing. As noted in section 6.4 undercatch (Carry over) provides relief to operators who encounter circumstances, within a fishing season, which prevent them from taking their quota for a species.

The Regulations will include the amounts for minimum holdings required to operate a gear type by an individual licence holder. The minimum holdings amounts will be determined and set by the Minister at the start of the fishing season each year if change is required.

NOTE: As different gear methods used in the fishery have varying catch rates, the percentage (%) used to determine minimum holdings required by the vessel to fish will vary dependent upon which gear method is used. The benchmarked amounts of Minimum Holdings for each gear type are pre-determined to closely align with the amounts used in the Timor Reef Fishery framework.

8.1 Dropline and Vertical line Minimum Holdings

To maintain consistency with the TRF, it is proposed the following mechanism be used to identify the level of minimum holdings for each quota species group when **Dropline and Vertical line** gear methods are used:

- Combined Goldband species (49%* of 10,900 kgs), rounded off to: **5350** kgs**
- combined Red snapper species (45%* of 10,900 kgs), rounded off to: **4900** kgs**
- combined Group species (6%* of 10,900 kgs), rounded off to: **650** kgs**

* These figures will change as the catch composition average changes over time.

**Figures rounded off to the nearest 50 kg.

8.2 Fish-traps, Finfish Longline gear Minimum Holdings

It is proposed the following method be used to identify the level of minimum holdings for each quota species group when **Fish-traps, Finfish Longline gear** methods are used:

- combined Goldband species (49%* of 21,800 kgs), rounded off to: **10,700** kgs**
- combined Red snapper species (45%* of 21,800 kgs), rounded off to: **9800** kgs**
- combined Group species (6%* of 21,800 kgs), rounded off to: **1300** kgs**

* These figures will change as the catch composition average changes over time.

**Figures rounded off to the nearest 50 kg.

8.3 Semi-demersal finfish trawl gear Minimum Holdings

It is proposed the following method be used to identify the level of minimum holdings for each quota species group when the **Semi-demersal finfish trawl gear** method is used:

- combined Goldband species (4%* of 52,200 kgs), rounded off to: **2100** kgs**
- combined Red snapper species (75%* of 52,200 kgs), rounded off to: **39150** kgs**
- combined Group species (21%* of 52,200 kgs), rounded off to: **10950** kgs**

* These figures will change as the catch composition average changes over time.

**Figures rounded off to the nearest 50 kg. These two figures will not total the benchmarked figure due to other group species not being included at this time.

To summarize minimum holding process for demersal licence holders:

1. ***“When dropline or vertical line gear methods are used: A total minimum holdings of 10,900 Kgs is set proportionate to the rolling three year average catch compositions for each quota species group.”***
2. ***“When fish-traps or finfish longline gear methods are used: A total minimum holdings of 21,800 Kgs is set proportionate to the rolling three year average catch compositions for each quota species group.”***
3. ***“When finfish-trawl gear methods are used: A total minimum holdings of 52,200 Kgs is set proportionate to the rolling three year average catch compositions for each quota species group.”***

The level of minimum ITQ holdings are intended to be set so as not to prematurely place inappropriate restrictions on operators, i.e. not so large as to restrict entry to the fishery, but sufficient to discourage high-grading and issues associated with unrestricted access to non-quota species.

A licensee must ensure minimum ITQ holdings for each species group is held prior to commencing a voyage. Suitable penalties for non compliance of these provisions will be imposed.

8.4 Mechanism to determine the rolling three year average catch composition for each species group

It is anticipated that the catch composition of the fishery may change with the introduction of ITQ. To monitor this change the catch composition will be reviewed annually by Fisheries. Fisheries will recommend the average catch composition for each gear type and quota species group using the fisheries catch composition rolling average for the last three years. The current average catch composition will be used to identify the level of minimum holdings for each species group each year as described above.

9. Bycatch

All Combined bycatch species currently have a review trigger of 10% of the total annual catch for the demersal fishery. The finfish trawl fishery currently has a bycatch review trigger of 35%.

Potential impacts resulting from changes to bycatch composition arising from the introduction of ITQ are addressed through application of performance indicators in the decision rule tables (refer Appendix 1). The tables have been developed for current demersal fishery gears and include specific bycatch objectives to maintain bycatch weight below 10% (hook & trap gears), 25% (finfish longline gear) and 35% (finfish trawl gear) respectively of the previous year's total catch weight estimate, amending bycatch performance indicators and placing precautionary triggers and appropriate management actions to be taken if triggered. Suitable bycatch tables have been developed for finfish longline and trawl gears and are incorporated into the decision rules. Note: deliberate wasting (discarding) of fish once it has been chilled will not be condoned (i.e. even if fish has low market demand) and may be legislated against and appropriate penalties imposed if the practice is observed.

Fisheries will periodically review the fisheries catch composition to ensure the bycatch triggers are maintained at an appropriate level. The Decision Rules tables described in Appendix 1 allow for additional observer monitoring and research at Industry cost if concerns arise over combined group, bycatch or other catch issues.

10. Monitoring and Reporting

Onboard fishery observers record and monitor target, group and bycatch species. Logbooks currently record target and grouped species by number (trap and dropline gear) and weight (trawl gear). Bycatch species are recorded by weight. Observer data is often used to verify logbook data. To enable the timely identification of individual grouped species, it is proposed that daily logbooks will be completed and provided to Fisheries at the completion of each trip, and within seven days of unloading, not monthly as is the case now. Monthly market detail logbooks shall also be provided within seven days of the vessel unloading. An alternative to trip logbook returns would be modification of the CDR form to provide individual grouped species to be sorted, weighed and recorded by species. This alternative is considered to be inappropriate, onerous to operators and a needless replication of information gathered already.

The current level of observer coverage will not be adequate to monitor changes in fishery practices anticipated under a quota system. It is proposed that an agreed mechanism be put in place to trigger additional monitoring (refer Appendix 1). To ensure cost effectiveness, any increase in observer coverage should continue to record and validate fishery catches and be linked to the gathering of required scientific data to assist in the confirmation and annual review of the TACC.

Fishery unit and quota unit transfer applications must be made on approved forms to Fisheries and must be approved by the Executive Director of Fisheries (or a nominated person) prior to the quota unit being used.

To minimise 'offshore' compliance costs, enforcement of the quota system will be assisted through the licensee completing a Prior Landing Notice (given by phone 12-24 hrs before landing, nominating time and where in port), an Unloaded Fish Notice (given by phone within 1 hour after unload, detailing catch weights, transporters, processor), and a Catch Disposal Record (paper, CDR) designed to verify

recorded information about fish catches (*Fisheries Act s34*). The notices and CDR are not intended to replace daily catch and effort logbooks. A Pre-Departure Notice is required to be given before leaving the mooring (given by phone 1 hr to 12 hrs before undocking nominating time of departure, intended destination, type of gear to be used, confirmation of minimum holdings, etc).

For the purposes of this framework and subsequent Regulations, reference to a *record* may include a collection of data that contains information such as position marks on an electronic device e.g. a global positioning system (GPS) or plotter. This will allow for Fisheries Officers to examine the track of the vessel's last voyage to enable cost effective validation of information provided by the fisher in the compulsory notices.

To ensure effective enforcement of quota, it will be a requirement that all unloading of catch by operators be carried out in Darwin or Nhulunbuy (may be additional compliance costs for operators using this port). Fishers returning to Darwin or Nhulunbuy will be required to contact a nominated phone number twelve to twenty four hours prior to entering the harbour (i.e. Prior Landing Notice). A licensee may apply to the NTFJA seeking once-off approval to unload quota species in another port in special circumstances (e.g. cyclonic weather, vessel and crew safety concerns) to be outlined in a written application. Limited compliance sharing capacity with QFBP is being reviewed and may permit some pre-approved unloading of catch in approved interstate ports.

It is also proposed to provide for applications to the NTFJA from individual operators who wish to unload GOC catch in another port on a more permanent basis. This approval would provide for unloading of GOC catch in interstate ports (e.g. Weipa, Karumba) on a regular basis. Approval to this scenario will require the operator to establish an approved alternate compliance monitoring regime (e.g. Compliance Officers or Electronic Monitoring) to maintain integrity of the fishery regulations. It is also proposed that any additional monitoring costs would be borne by the requesting operator (i.e. via the Tier 2 mechanism), not borne by the DF fishery as a whole.

In order to ensure that the compliance and administrative issues of the new arrangements can be simplified, the plan will **not** allow for transshipping of product. The capacity to tranship product at sea may be reviewed in the future once the new arrangements have been bedded in. A licensee may apply to the Director seeking once-off approval to tranship quota species at sea only in special circumstances (e.g. cyclonic weather, vessel and crew safety concerns) to be outlined in a written application. However, if special dispensation is granted, the unloading of catch in Darwin provision will remain (note previous comment relating to alternate ports).

Conversion factors for various product forms for individual species will need to be developed in conjunction with Industry. Until these conversions are developed, only the current practice of whole fish product will be permitted to be unloaded. Special arrangements will be considered by the Joint Authority in advance (i.e. before the trip), for DF operators wishing to unload processed fish.

No quota species intended for sale will be allowed on board a vessel upon commencement of the next voyage. This is required to assist enforcement activities and will greatly reduce the cost of ensuring compliance with the proposed management arrangements. A licensee may apply to the Director seeking approval to store quota species on board in special circumstances (e.g. on-board storage of product for export etc.) to be outlined in a written application. Additionally, before un-docking, a fisher must declare which gear and fishery he intends to fish in that voyage and may only fish in one fishery during a single voyage. Special approval may be sought to fish outside the DF and, if granted, all fish taken during the voyage will be deducted from the licence holders DF holdings.

The final design and printing of the CDR has been completed for use in the nearby Timor Reef Fishery and it is proposed that use of this form be continued. It is proposed that Parts A & B of the CDR be common to all Parts and will only need to be filled out once as it will be 'carbon copied' to the other pages. Part A will consist of information on the quota holder's licence, vessel, trip, total catch, fish receiver and method of transport details.

Part B of the CDR will record the driver's confirming details. Part A and Part B will be recorded on the first page and will be sent to and received by Fisheries, within three calendar days of the fish being unloaded. A second 'carbon' copy of the first page remains in the book, with a third 'carbon' copy of the first page accompanying the fish to the fish receiver (Trader/Processor, etc.). Part C of the CDR, filled out by the fish receiver or his authorised nominee, shall be completed (and signed) within 50 metres of the vessel unloading and received by Fisheries within three calendar days of receiving the fish. Fish may only be sold to the holder of a current fish trading licence issued by NT Fisheries such as a Fish Retailer licence, Fish Broker licence or a Trader/processor licence.

Penalties to an operator for submitting an *incomplete* notice or CDR record shall reflect the seriousness of the breach and be a significant deterrent to operators. Penalties for submitting *incorrect* information in a notice or CDR form shall be deemed to be a fraudulent act against the sustainability of the fishery and the penalty shall reflect the seriousness of the act.

A guide booklet to assist operators in filling out the new forms and giving notices has been prepared by Fisheries. It is intended the forms and notices guide will be distributed to all holders of quota. A risk based compliance program and catch monitoring program will be implemented on commencement of the new regulations. In addition, some form of Vessel Monitoring System (VMS) for all vessels in the fishery is being considered to assist in offshore compliance matters. VMS in the TRF is proposed to be introduced prior to, or in conjunction with the Demersal and Finfish Trawl fisheries move to QMS. Global positioning or electronic monitoring systems are variations to traditional VMS and may be used in the fishery.

10.1 Vessel Monitoring Systems (VMS)

VMS assists fisheries managers to achieve compliance with fishery management arrangements, particularly where fishing activity needs to be restricted to certain areas or zones. This technology is considered ideal in maintaining the integrity of managed areas such as the NT's Timor reef, and the proposed DF and as an aid in the deployment of enforcement assets.

In other jurisdictions, VMS has been found to have numerous applications, many of which are still emerging as fisheries management arrangements become more sophisticated. Commercial acceptance of the system has generally been very good once the decision was made to implement VMS. In many instances, fishing businesses have been quick to place computer terminals on-board vessels to enable land-based licence holders to maintain firm lines of communication with the vessel and crew. Safety measures associated with the system have also been recognised and appreciated by vessel operators.

Potential management and research benefits for sharing information on vessel activity between cross-jurisdictional joint authority partners could be available. This is particularly important for managing shared species or straddling stocks such as Snapper where the fisheries overlap state / territory borders.

The DF and TRF licensees have lobbied Fisheries to remove the regulation requiring a Timor reef fisher to also have a demersal licence attached to the vessel. This regulation was in place to remove the need for constant monitoring of the vessels location while fishing and it has been removed with the introduction of QMS. The introduction of VMS into both the Timor reef and the proposed DF fisheries would enable sharing of VMS related establishment and monitoring costs and provide a cost effective monitoring alternative.

This system would provide for accurate, real-time monitoring of a vessels location and two-way transfer of data between the Fisheries monitoring office and the vessel.

Fisheries are also investigating alternate remote vessel monitoring technology, such as electronic monitoring (referred to as EM or e-Monitoring), which may prove more cost-effective and provide 100% coverage of fishery operations. EM technology records video footage of catch, GPS location, hydraulic and drum use through sensors and can provide for trip and gear auditing. Analysis of the information stored provides the species caught, retained, released and discarded. The information recorded by the EM system is stored on a hard drive (for up to 4 mths) located on the vessel, and the drives may be swapped when the vessel is in port, not via satellite. The EM system may be a cost effective alternative to the requirement to carry an 'at sea' observer, and are able to be installed where an observer may not currently be feasible due to a vessels size, or for extended trips.

One of the advantages of EM over VMS is the ability to gather additional information on catches and gear use that can be independently analysed and reported on by accredited trained observers, potentially reducing the requirement for as many at sea observer trips. A further benefit of EM has been identified where monitoring of catch unloading at approved remote ports is required. This equipment is likely to provide a cost-effective alternative to the provision of Compliance Officers in monitoring the vessel unload.

10.2 Scales and weights to be used when quota species are unloaded from vessel.

An ITQ holder must not unload or attempt to unload a quota species for sale unless the fish is in a whole product form and the ITQ holder has in his or her possession scales suitable for weighing quota species. An ITQ holder must not unload or attempt to unload quota species for sale unless the ITQ holder has in his or her possession a suitable trade weight for the purpose of testing the scales used by the ITQ holder to weigh quota species. On any day that a quota species is unloaded, the ITQ holder must use the suitable trade weight to test the scales for accuracy before weighing the quota species. A contravention of this clause is proposed to be an ITQ holder offence.

10.3 Catch not to be transferred between vessels

In order to ensure simplicity of the compliance and administrative issues of the new arrangements, the plan will **not** allow for transshipping of product. The capacity to tranship product may be reviewed in the future once the new arrangements have been well established. A licensee may apply to the Director seeking once-off approval to tranship quota species only in special circumstances (to be outlined in a written application). However, if special dispensation is granted, the unloading of catch in Darwin provision will remain.

Special arrangements will not be considered for DF and FTF operators wishing to unload in Australian ports outside of the Territory. Breaches of notification or unload provisions will attract a suitable penalty. An ITQ holder must not transfer any quota species from one vessel to another without the approval of the Director. A contravention of this clause is an ITQ holder offence.

11. Costs

It is anticipated that there will be some additional financial costs to Government and industry as the proposed DF moves to a Quota Management System (QMS). With QMS, the timing of CDR data entry becomes critical to effective monitoring of quota allocations. Additionally, strict enforcement of fishing zones and catch landings to ensure compliance becomes critical to maintain transparency and confidence in the TACC. This will require additional resources.

Government is unable to support, on behalf of the community, any increase in current management costs that are associated with implementation of QMS into the Demersal and Finfish Trawl Fisheries.

AFMA's licence fee and tiered quota cost recovery system has been suggested by industry to be used as a guide for setting up a similar cost recovery process for the DF quota management. The

Commonwealth's cost recovery mechanism has been used in the TRF framework and is provided here as a guide to encourage discussion.

It is proposed to establish a subsidiary working group (comprising Industry, Fisheries finance group, Compliance and Fisheries staff) to review current operating costs and identify additional costs. This group will determine the total costs to be recovered via the tiered system and report to the OSAG annually at least four months prior to the licence renewal period.

11.1 Review of Current costs

Fisheries have reviewed research, management and administration costs associated with the current administration of the fishery. Fisheries provides funding for at least one monitoring trip per year, a portion of a manager's time (generally as required), a portion of a scientist's time (generally in-depth analysis of fishery) and licensing, registration and logbook data entry and verification.

The current costs of administering the Demersal and Finfish Trawl Fisheries have not been included into the additional costs referred to in section 11.2. New costs identified as a consequence of moving to quota are outlined below.

11.2 Additional Administration, Management and Research costs

A change to ITQ management will generate additional costs to government and industry. There may be further costs yet to be identified or uncovered as implementation of ITQ is advanced in the fishery. These costs are additional to those costs attributed to breaches and triggers of management objectives and performance indicators.

Additional 'one off' and ongoing management costs which have been identified and preliminary costings are detailed below;

- Design and printing of Catch Disposal Record logbooks
- additional logbook and licensing operator resources (.5 FTE at AO2 level) to enter and acquit units and CDR data
- database maintenance 5% (Demersal and Finfish Trawl Fisheries component) of database budget)
- Call Centre costs
- Compliance Costs (Est.)
- Vessel monitoring resource costs (incl .3 FTE at AO5 level)

Additional ongoing costs have been identified. There are potential savings of \$225.00 from current duplicate processes not required under the proposed management (e.g. Demersal and Finfish Trawl Fisheries Trader/Processor logbooks) which lower the ongoing costs.

11.3 Additional Compliance Costs

An estimate of resources required for risk-based monitoring of the fleet is still being determined by the department and as a result, only a draft costing is included in this study. Compliance costs will need to be included at a later date into the overall recovery proposal. As with the additional management and research costs, details will be provided for industry consideration once available.

Draft elements:

- 'At Sea' Inspections, activated upon fishery not complying with Management Objectives and triggering an agreed Management Action (refer to Appendix 1)
- Inspection of 5% (TBR) of landings. Based on current charge out rates for Compliance Officers = approx \$xxx per inspection
- Processor inspections, as required.
- Monitoring of compliance with fishery boundaries, multi-gear zones via VMS and alternate methods. (TBR)

11.4 Cost sharing mechanisms

Revenue raising measures required to share additional costs from industry would start as soon as the scheme is implemented into the fishery. If the scheme is implemented prior to the start of a licensing year, costs will be recovered on a pro-rata basis.

Note: the Northern Territory Seafood Council (NTSC) levy, currently collected at licence application or renewal time by Fisheries on behalf of the NTSC, will not be affected by these measures. New licences issued to new entrants will be liable for the full NTSC levy in addition to the base level licensing fees discussed in section 11.4.2. This fee has not been included in calculations detailed below. Licence holders will need to factor the NTSC levy into licence renewal costs upon application / renewal.

11.4.1 Recovery of 'Once off' start up management costs

It has already been agreed to apply for funding from the NT Fishing Industry Research & Development Fund to share the once off costs of upgrading the database to enable quota monitoring. The Timor Reef Fishery Management Advisory Committee's reasoning was that the upgrade would not only benefit the TRF but also the DF and FTF and perhaps other fisheries when moving to quota management in the future.

11.4.2 Recovery of 'on-going' Management Costs

It is proposed to retain annual licence administration fees and to increase those fees annually by CPI to offset existing costs to government (i.e. the current 'base level' fee is \$1015 for 2010-11). This base level fee will also be used to share in the expected additional administration costs of fishery unit and ITQ transfers.

Additionally, determination of a licence holder's 'on-going' additional costs **after** the first year will be from the Tier 1 mechanism of cost recovery (described below) and their licence fee each year will be adjusted accordingly: i.e. Based on a licence holders unit holdings for each species group, not just holding a licence.

As new entrants enter the fishery through purchase of units from other participants, the 'on-going' administration, compliance and management costs will increase proportionately; it is also proposed to apply a licence fee to new entrants at the time of fishery unit or quota unit purchase. As such, a new entrant successfully applying for an **A6/1xxx** series licence would pay a licence fee of 100% of the existing **A6/1xxx** series base level licence fee upon the issue of the licence.

11.4.3 Recovery of Unit and ITQ Transfer Costs (if required)

It is proposed to initially include the administration and management costs of registering changes in the ownership of units and quota in the base level fees outlined in section 11.4.2 above. However, if the transfer costs prove higher than expected, Government reserves the right, in consultation with industry, to introduce a separate fee for registering changes in ownership (where the individual licensee would pay).

11.4.4 Proposed Mechanism for funding of triggered Decision Rules Management Actions

Management actions need to be clearly defined and costs estimated in order to develop an acceptable, agreed system of cost sharing.

This will be done for each management action and will sit behind the Performance Indicator tables (refer to Appendix 1). Proposed Management Actions (MA) for specific breaches of the Trigger Points (TP) relating to Performance Indicators (PI) have been developed. In the attached PI table, each MA has been allocated a number (MA1, MA2, etc.) to distinguish it from other MA's to estimate a cost following a breach of a PI.

A cost recovery mechanism proposed to recover 'on-going' additional management costs based on a licence holders fishery unit holdings, is described below in section 11.4.5 (tier 1).

In addition, it is proposed to structure a tiered levy system which will be applied when a performance indicator trigger point is breached. The costs to be recovered can be put into two different categories, one is a fixed cost per day for an observer to go on a vessel (tier 2), and the other is a variable cost applied to whole of industry to recover the cost to Government in arranging for analysis and reports (tier 3). Refer to section 12 for working examples of the tiered mechanisms.

11.4.5 Tier 1 mechanism

A Tier 1 cost recovery mechanism is proposed to recover 'on-going' additional management costs after the first year, plus CPI increases, including some monitoring and compliance costs (yet to be verified). This mechanism is additionally applied when MA 4, 5, 11 or 17 are triggered (see Appendix 1). Tier 1 is applied annually at allocation/licence renewal time. Note: Licences will not be renewed, nor will Undercatch or ITQ be allocated until all outstanding fees and charges are addressed.

11.4.6 Tier 2 mechanism

It is proposed to apply a Tier 2 cost recovery mechanism to recover the cost of an observer = ~ 700 penalty units / day. This is applied to an individual licence, when a trigger point is activated and a management action is required. Tier 2 will be applied to an individual licence holder when Management Actions (MA) 1 has been activated (refer Appendix 1). When Tier 2 is applied costs will be recovered through the issue of an Invoice payable before the next quota allocation can be issued. Note: the number of observed fishing days on the trip should be at least as long as the average number of fishing days for the past 3 voyages. If the observer monitors less than this amount of time, and the information gathered is not sufficient to adequately address the reason for the trip, the fisher may be required to repeat the exercise at the discretion of the NTFJA.

11.4.7 Tier 3 mechanism

A Tier 3 cost recovery mechanism is proposed to recover the cost to Government in arranging for monitoring, analysis and reports. Tier 3 cost recovery is automatically activated when MA 6, 7, 12, 13, 18, 24 or 29 are triggered (see Appendix 1). Industry agrees to fund the additional cost of the monitoring, analysis and reporting through the automatic activation of Tier 3 – an annual Fishery allocation fee per fishery unit of quota allocated to each species group.

11.4.8 Management Costs Recovery Summary

It is proposed to recover costs via the three tier mechanism. Tier 1 will be used to recover 'on-going' additional costs; tier 2 will be used to recover the cost of an observer (to an individual licence holder) and tier 3 to recover monitoring, research and compliance costs for analysis and reports.

Cost sharing arrangements in the **first** year of quota in the proposed DF fishery are estimated to be ~\$TBA per licence with vertical line, dropline and fish-trap gear endorsements. Costs are higher for the licence with an additional finfish trawl endorsement as fishery unit holdings are greater. The approximate cost to the licensee with the finfish trawl endorsement is ~\$TBA in the first year. This figure is derived from a licence holders share of the on-going additional cost of \$TBA (the base level licence fee for 2010-11 has already been received) based on proposed fishery unit holdings. This licence fee will be payable on re-issue of the licence on the commencement of the Regulations.

On-going additional administration costs from year 2 are comprised of the estimated on-going additional costs + base level licence fee for 2011-12 + CPI and will be recovered from the Tier 1 method of cost recovery. These costs will be evaluated each year by the department and amended if required. Compliance costs are still being reviewed and as a result, estimates may change.

12. Additional Considerations

Both the Demersal and Finfish Trawl fisheries' gears and operating practices have been independently assessed by SEWPAC for environmental sustainability and were each accredited a five year export exemption. This exemption extends till May 2014.

SEWPAC supports the continued reporting of future assessment needs for each fishery, but reinforces the requirement for the DoR to advise SEWPAC of any intended change to the NT Demersal and Finfish Trawl Fisheries management arrangements, including legislated amendments that may affect sustainability of the target species or negatively impact on group, bycatch, protected species or the ecosystem.

SEWPAC is aware of an industry request to review the levels of permitted gear with a view to develop a formal plan of management. In the event that a formal plan is adopted, DoR will need to seek re-accreditation under Part 13 and Part 13A of the EPBC Act for the new management plan as the current accreditation would be deemed invalid.

13. Working Examples

13.1 Fishery unit & ITQ Transfer examples

The following 3 examples are of likely transactions and how they would occur:

In the first 3 examples, an A6/1xxx licence series operator (Lessor) has fishery unit to the equivalent of 5,000 kgs Goldband ITQ.

(1) I wish to transfer 5,000 kgs of Goldband ITQ to another licensee in the fishery.

The lessor (operator) completes an ITQ transfer form as lessor for 5,000 kgs of Goldband ITQ and the lessee (other licensee) signs the form in acceptance of the ITQ. Once approved, the result is as follows:

- Lessor's holdings
 - 5,000 Goldband fishery units
 - 0kgs Goldband ITQ allocation ((apply Conversion Factor, initially, 1 fishery unit = 1kg), (5,000kgs - 5,000kgs) = 0kgs)
- Lessee's holdings
 - 5,000kgs Goldband ITQ i.e. available for fishing.

(2) I wish to retain my entire quota (to continue fishing this year) but sell 5000 fishery units to a new entrant.

The operator (Lessor) completes a permanent fishery unit transfer form as holder of the fishery unit, the new fishery unit holder (Lessee) also completes their details on the form. A start date for the permanent fishery unit transfer to be effective from is nominated on the transfer forms. The new fishery unit holder must concurrently apply for, and be granted, an A6/1xxx series licence. The fishery unit transfer and issue of the A6/1xxx series licence to the new entrant do not occur until the starting period. Once approved, the result is as follows:

- Lessor's holdings
 - 5,000 kgs Goldband ITQ available for fishing
- New fishery unit holder's (Lessee) holdings (also applies for a A6/1xxx series licence)
 - 5,000 Goldband fishery units i.e. fishery unit only, no ITQ available for fishing in the current year

Note: The Lessee would receive an ITQ allocation at the start of next fishing season.

(3) I wish to sell my entire Goldband fishery units and transfer 3,000 kgs of my Goldband ITQ allocation to a new entrant, while retaining 2,000 kgs of Goldband ITQ.

The operator completes a permanent fishery unit transfer form as holder of the fishery unit and a transfer form for the ITQ. The new unit holder (lessee) also completes details on forms. The new fishery unit holder must concurrently apply for, and be granted, an A6/1xxx series licence. The operator also completes an ITQ transfer form for 3,000 kgs of Goldband ITQ also signed by the lessor. Once approved, the result is as follows:

- Lessor's holdings
 - 2,000 kgs of Goldband ITQ (Conversion Factor applied, initially, 1 fishery unit = 1kg ITQ)
- New Lessee (Lessee also applies for a A6/1xxx series licence) holdings
 - 5,000 Goldband Fishery units
 - 3,000 kgs of Goldband ITQ (apply Conversion Factor, initially, 1 fishery unit = 1kg ITQ)

Note: Lessee would receive new ITQ allocation for his 5,000 Goldband fishery units at the start of next fishing season.

13.2 Tier 1 mechanism and example

A Tier 1 cost recovery mechanism is applied to recover 'on-going' additional management costs after the first year of \$154,030, plus CPI increases, including routine fishery monitoring and compliance costs (yet to be verified). Tier 1 cost recovery is automatically activated annually at allocation/licence renewal time. Licences will not be renewed, or ITQ allocated until all outstanding fees and charges are addressed.

Activation of the Tier 1 cost recovery mechanism will apply to all fishery unit holders on a pro rata basis, meaning that every unit holder pays an equal proportion of the costs due for each of the various species groups fishery unit he or she owns.

Quota species	Economic Value To Fishery unit (2yr ave.)			Species group displayed as a % of average Economic Value	Tier 1 Cost recovery (~\$154,030* species group %) Total	Cents/unit per Species group quota allocated Tier 1 fee =
	2008 \$M	2009 \$M	Ave. \$M			
Goldband Species group	\$1.59	\$2.64	\$2.12	26%	\$39,753	\$.099 cents/unit
Red snapper Species group	\$4.59	\$4.69	\$4.64	57%	\$87,212	\$.035 cents/unit
Group species group	\$1.56	\$1.32	\$1.44	18%	\$27,066	\$.030 cents/unit

* The \$154,030 figure used to demonstrate the Tier 1 cost recovery mechanism is only an example to enable the cents/kg fee to be displayed. The actual amount that needs to be recovered will depend upon the final cost once all costs have been verified.

Example; A licence holder owns 5,000 Goldband units, 20,000 Red snapper units and 5,000 Group units at licence renewal/allocation time. The licence holder would be charged the pro-rata rate from tier 1 of 5,000 @ \$.099 cents/unit, 20,000 @ \$.035 cents/unit, and 5,000 @ \$.030 cents/unit totalling \$1342.50 for that licence holder's share of the costs.

13.3 Tier 3 mechanism and example

Activation of the Tier 3 cost recovery mechanism will apply to all fishery unit holders on a pro rata basis across the differing species groups (to account for varying unit values).

Quota species	Economic Value To Fishery unit (2yr ave.)			Species group displayed as a % of average Economic Value	Tier 3 Cost recovery (~\$65,000* species group %) Total	Cents/unit per Species group quota allocated Tier 1 fee =
	2008 \$M	2009 \$M	Ave. \$M			
Goldband Species group	\$1.59	\$2.64	\$2.12	26%	\$16,775	\$.042 cents/unit
Red snapper Species group	\$4.59	\$4.69	\$4.64	57%	\$36,803	\$.015 cents/unit
Group species group	\$1.56	\$1.32	\$1.44	18%	\$11,422	\$.012 cents/unit

* The \$65,000 figure used to demonstrate the Tier 3 cost recovery mechanism is only an example to enable the cents/unit fee to be displayed. Costs applied using a Tier 3 method will be in addition to those 'on-going' management Tier 1 costs.

Example; A licence holder owns 5,000 Goldband units, 20,000 Red snapper units and 5,000 Group units at licence renewal/allocation time. The licence holder would be charged the pro-rata rate from tier 3 of 5,000 @ \$.042 cents/unit, 20,000 @ \$.015 cents/unit and 5,000 @ \$.012 totalling \$566.53 for that licence holder's share of the costs.

13.4 Undercatch mechanism and example

Rule:

Quota holders are authorised to carry over eligible ITQ that is not taken during the current fishing period to the next fishing period, plus any additional quota units purchased during the year, less any transfers up to a maximum 20% of his annual quota unit allocation, if applicable.

After all transfer and fishing activity has been accounted for a licence holder still holds the following quota units (i.e. eligible quota units) at the end of the season (midnight 30 June);

25,000 Goldband quota units

15,000 red snapper quota units and,

8,000 Group quota units

To work out what he is entitled to carryover we look at his total quota unit holdings and any transfers to his licence throughout the year, a twostep process.

In step one, we review his annual quota unit allocation (1 July, based on his fishery unit holdings, if held.). In this example it was;

80,000 Goldband quota units

110,000 red snapper quota units and,

35,000 Group quota units

In step two we look at quota unit transfers and find that during the year he purchased 20,000 Goldband quota units, 25,000 red snapper quota units and 5,000 Group quota units; and he made no sales giving him total quota unit holdings of (made up from annual allocation + purchases - sales);

100,000 Goldband quota units

135,000 red snapper quota units and,

40,000 Group quota units

Under the undercatch provision, he may carryover 20% of this amount, up to his remaining quota units as at 30 June. In this example, 20% of quota unit holdings are;

20,000 Goldband quota units

27,000 red snapper quota units and,

8,000 Group quota units

Therefore, the licence holder is entitled to carryover 20,000 Goldband quota units, 15,000 red snapper quota units and all 8,000 Group quota units.

Note: Any carryover quota units from the year before are not included in these calculations as they cannot be carry-overed. In this example, the licence holder would **not** be entitled to carryover 5,000 of his remaining goldband quota units as the amount was **greater** than the allowed 20% of goldband quota unit holdings. He also had **less** remaining red snapper quota units than he could have carried over. The amount of group quota units remaining equalled the permissible 20% amount so all were eligible for carryover. Note that he is only eligible to carryover remaining (i.e. unused) quota units, up to a maximum of 20% of holdings.

NOTES ON DECISION RULE TABLES:

- Expected first year growth is ~30-40%, initial activation of data gathering processes should start before this level to ensure adequate protection of minor species. By the time the species group has doubled from present (2011-12) levels, we should have the necessary information to conduct an informed review of the fishery. To ensure the guidelines are achieved, % triggers are to be placed at appropriate levels, activated when annual catch reaches the triggers.

- Additionally, in order to maintain environmental integrity of individual species within the grouped species, included are additional group triggers to identify any 'growth' species earlier, and if required, carry out specific research (at industry cost) to ensure its sustainability.

- Observer rates have been clarified with one industry funded trip per year for every 1000t over 500t.

- A T.E.P. and Ecosystem component table has been added to consolidate the fisheries decision rules into one set of tables.

APPENDIX 1. DECISION RULES OUTLINING FISHERY OBJECTIVES, PERFORMANCE INDICATORS, TRIGGERS AND MANAGEMENT RESPONSES

Species or group	Objectives (O)	Performance Indicator (PI)	Trigger point (TP)	Management action (MA)
All quota / non-quota species	<p>Minimise high grading, transshipping or discarding through;</p> <ol style="list-style-type: none"> 1. monitoring of quota transfer 2. Observer coverage of a min. 2 trips per year. 3. monitoring of catch compositions 4. monitoring of minimum holdings 5. in port inspection of vessels on arrival as required 6. Monitoring market conditions 7. monitoring of multi-agency offshore reports relating to transshipping of catch at sea 	<ol style="list-style-type: none"> 1. Analysis of individual catch return data shows no anomalies 2. No reported incidences of high grading or discarding occurring 3. Minimum holdings verified 4. Observer data validates catch composition and catch returns 5. Industry, Scientists, SEWPAC or Managers are satisfied with operations 6. No reported incidences of transshipping. Fisheries Officers satisfied with compliance in offshore operations 7. Validation of reported bycatch when finfish trawl, finfish longline gear are used 	<ol style="list-style-type: none"> 1. Breach of performance indicators by operator/s. MA1, MA3 activation. 2. Scientists have a concern for sustainability of a species. MA3 activation. 3. Breach of minimum holdings. MA2 activation. 4. Breach of compliance in offshore operations. MA1, MA3 activation. 5. Total combined annual catch is higher than 500t. MA4 activation. 6. Finfish Trawl, Finfish Longline gear is used. MA1 activated. 	<p>MA1. Any operator in breach must arrange for at least 1 additional observer trip to evaluate their fishing operations before re-commencing fishing at own cost e.g. 700 revenue units/day. If TP 6 is activated, any operator who uses finfish trawl or longline must either; install approved monitoring equipment; or, notify the Director within 14 days of first voyage to arrange for additional monitoring with the Director within the first two months at own cost e.g.700 revenue units /day per observer. If required, it is proposed to have one monitored trip for each three months of operations thereafter. Costs are proposed to be recovered via the Tier 2 mechanism.</p> <p>MA2. No entry to the fishery until formal verification of minimum holdings</p> <p>MA3. review fishery operating practices</p> <p>MA4. Observers to carry out one additional trip per year for every 1000t over 500t to validate catch composition and catch returns at industry expense. Additional costs are proposed to be recovered from industry annually via Tier 1 mechanism.</p> <p>Note: The Joint Authority may require an operator who has been convicted of an offence, or has been issued and has paid a FINS notice, to either, take an observer on board or install an electronic monitoring system within 3 months</p>

Species or group	Objectives (O)	Performance Indicator (PI)	Trigger point (TP)	Management action (MA)
Combined Goldband species	<p>8. Management to an appropriately determined TACC</p> <p>9. Scientists, SEWPAC and Managers satisfied with TACC value</p>	<p>8. Confirmation of TACC</p> <p>9. Analysis of individual catch return data shows no anomalies</p> <p>10. No reported incidences of high grading or discarding occurring</p> <p>11. Minimum holdings verified</p> <p>12. Observer data validates catch composition and catch returns. Length frequency data shows no anomalies</p> <p>13. Industry, Scientists, SEWPAC or Managers are satisfied with operations</p>	<p>7. Breach of performance indicators by operator/s. MA1, MA9 activation.</p> <p>8. A 30% decline in catch from the previous year. MA6, MA8 activation.</p> <p>9. When 55% of the TACC is taken in a year. MA5 activation.</p> <p>10. When 80% of the TACC is taken in a year. MA6, MA7 activation.</p> <p>11. When 90% of the TACC is taken in a year. MA8 activation.</p> <p>12. When TACC is taken in a year. MA10 activation.</p>	<p>MA5. Observers gather data (~500 otoliths, lengths etc) to assist in future research. This information may either be collected 'at sea' or from landed catch. Additional costs proposed to be recovered via the Tier 1 mechanism.</p> <p>MA6. Analysis of gathered data is undertaken. Approx. \$20 per otoliths, + ~\$33,000 for Stock Assessment report. Additional costs are proposed to be recovered from industry annually via Tier 3 mechanism.</p> <p>MA7. Assessment surveys initiated as per agreed methodology. Additional costs are proposed to be recovered from industry annually via Tier 3 mechanism.</p> <p>MA8. A review of the appropriateness of the current TACC is undertaken using all data.</p> <p>MA9. A review of fishery operating practices.</p> <p>MA10. All activity in the fishery is halted until next ITQ allocation period.</p>

Species or group	Objectives (O)	Performance Indicator (PI)	Trigger point (TP)	Management action (MA)
Combined Red snapper species	<p>10. Management to an appropriately determined TACC</p> <p>11. Scientists, SEWPAC and Managers satisfied with TACC value</p>	<p>14. Confirmation of TACC</p> <p>15. Analysis of individual catch return data shows no anomalies</p> <p>16. No reported incidences of high grading or discarding occurring</p> <p>17. Minimum holdings valid</p> <p>18. Observer data validates catch composition and catch returns. Length frequency data shows no anomalies</p> <p>19. Industry, Scientists, SEWPAC or Managers are satisfied with operations</p>	<p>13. Breach of performance indicators by operator/s. MA1, MA15 activation.</p> <p>14. A 30% decline in catch from the previous year. MA13, MA14 activation.</p> <p>15. When 30% of the TACC is taken in a year. MA11 activation.</p> <p>16. When 70% of the TACC is taken in a year. MA12, MA13 activation.</p> <p>17. When 80% of the TACC is taken in a year. MA14, MA15 activation.</p> <p>18. When the TACC is taken in a year. MA 16 activation.</p>	<p>MA11. Observers gather data (need ~500 otoliths, lengths etc) to assist in future research. This information may either be collected 'at sea' or from landed catch. Additional costs proposed to be recovered via the Tier 1 mechanism.</p> <p>MA12. Assessment surveys initiated as per agreed methodology. Additional costs are proposed to be recovered from industry annually via Tier 3 mechanism.</p> <p>MA13. Detailed analysis of all gathered data is undertaken. Approx. \$20 per otoliths, + ~\$33,000 for Stock Assessment report. Additional costs are proposed to be recovered from industry annually via Tier 3 mechanism.</p> <p>MA14. A review of the appropriateness of the current TACC is undertaken using all data.</p> <p>MA15. A review of fishery operating practices</p> <p>MA16. All activity in the fishery is halted until next ITQ allocation period.</p>

Species or group	Objectives (O)	Performance Indicator (PI)	Trigger point (TP)	Management action (MA)
Grouped species	<p>12. Maintain group within 32% of fisheries total annual catch</p> <p>13. Scientists, SEWPAC or Managers satisfied with TACC value</p> <p>14. To identify key group species</p>	<p>20. Confirmation of an appropriately determined TACC</p> <p>21. Analysis of individual catch return data shows no anomalies</p> <p>22. No reported incidences of high grading or discarding occurring</p> <p>23. Minimum holdings verified</p> <p>24. Observer data validates catch composition and catch returns. Length frequency data shows no anomalies</p> <p>25. Industry, Scientists, SEWPAC or Managers are satisfied with operations</p>	<p>19. Breach of performance indicators by operator/s. MA1, MA21 activation.</p> <p>20. Scientists or Managers have a concern for sustainability of species. MA 17, MA18 activation.</p> <p>21. Breach of minimum holdings. MA20 activation.</p> <p>22. A species increases by more than 15% relative to the previous three (3) years average weight or, becomes dominant relative to other species in the group. MA17, MA18, MA21 activation.</p> <p>23. A 30% decline in catch relative to the previous three (3) year average . MA18, MA19 activation.</p> <p>24. When 30% of the TACC is taken in a year. MA17 activation.</p> <p>25. When 45% of the TACC is taken in a year. MA18 activation.</p> <p>26. When 50% of the TACC is taken in a year. MA19, MA21 activation.</p> <p>27. When 100% of the TACC is taken in a year. MA23 activation.</p>	<p>MA17. Observers gather data (otoliths if required, lengths etc) to assist in future research. This information may either be collected 'at sea' or from landed catch. Additional costs proposed to be recovered via the Tier 1 mechanism.</p> <p>MA18. Detailed analysis of all gathered data is undertaken. Fisheries to investigate species and compile & review biological data, this may require modelling, spatial & stock assessment. Additional costs are proposed to be recovered from industry annually via Tier 3 mechanism.</p> <p>MA19. A review of the appropriateness of the current TACC is undertaken using all data.</p> <p>MA20. No entry to the fishery until formal verification of minimum holdings</p> <p>MA21. A review of fishery operating practices</p> <p>MA22. Gear in the fishery to be reviewed by TRFMAC to evaluate impacts. Gear may be modified, or abolished to address identified issues</p> <p>MA23. All activity in the fishery is halted until next ITQ allocation period.</p>

Species or group	Objectives (O)	Performance Indicator (PI)	Trigger point (TP)	Management action (MA)
Bycatch species	<p>15. To maintain bycatch at or below 10% of the annual estimated catch weight for dropline and fish-trap fishing gear</p> <p>16. To maintain bycatch below 25% of the annual estimated catch weight for finfish long-line gear</p> <p>17. To maintain bycatch below 35% of the annual estimated catch weight for finfish trawl gear</p> <p>18. To maintain shark bycatch below 50% of the annual estimated bycatch weight</p> <p>19. To identify key bycatch species</p>	<p>26. Observer data validates reported discard ratios, including shark</p> <p>27. Industry, Scientists, SEWPAC and Managers are satisfied with operations</p> <p>28. Validation of reported bycatch when finfish trawl or finfish longline gear are used</p> <p>29. Bycatch % for each gear type within limits</p>	<p>28. Breach of performance indicators by operator/s. MA1, MA24, MA25 activation.</p> <p>29. Scientists, SEWPAC or Managers have a concern for sustainability of a species. MA24, MA25, MA26 activation.</p> <p>30. Observed or reported shark bycatch increases by more than 30% of the previous year's shark bycatch weight. MA24, MA25, MA26 activation</p>	<p>MA24. Fisheries to investigate species and compile & review biological data, this may require modelling, spatial & stock assessment. Additional costs are proposed to be recovered from industry annually via Tier 3 mechanism.</p> <p>MA25. A review of fishery operating practices</p> <p>MA26. Non-conforming gear in the fishery to be reviewed by TRFMAC to evaluate impacts. Gear may be modified, or abolished to address identified issues.</p>

Species or group	Objectives (O)	Performance Indicator (PI)	Trigger point (TP)	Management action (MA)
Endangered, Threatened or protected species and/or communities and/or Ecosystem components	<p>20. Maintain present levels of Endangered, Threatened or Protected species and communities' interaction with all fishing gear types</p> <p>21. Minimise effects of fishing on ecosystem components</p> <p>22. Fish traps are individually set, not attached to each other and are not set on reef habitat areas.</p>	<p>30. No unreported incidences of protected species interactions</p> <p>31. Observer data validates Endangered, Threatened or protected species and/or communities reporting practices.</p> <p>32. No fish trap damage to reef habitat areas observed or reported.</p> <p>33. No identification of threatening processes.</p> <p>34. Industry, Scientists, SEWPAC or Managers are satisfied with sustainability of all species and/or ecosystem components.</p>	<p>31. Breach of performance indicators by operator/s. MA1, MA27 activation.</p> <p>32. Scientists, SEWPAC or Managers have a concern for sustainability of a species and/or ecosystem component. MA27, MA28 or MA29 activation.</p> <p>33. Fish traps are not individually set. MA28, MA29 activation.</p>	<p>MA27. A review of fishery operating practices.</p> <p>MA28. Gear in the fishery to be reviewed by TRFMAC to evaluate impacts. Gear may be modified, or abolished to address identified issues.</p> <p>MA29. Fisheries to investigate species and/or ecosystem component and compile & review relevant data. Additional costs are proposed to be recovered from industry annually via Tier 3 mechanism.</p>

APPENDIX 2 Terminology Definitions

Some new specific definitions may be required:

Combined Red snapper species when used in this division means fish of the species *Lutjanus malabaricus* and *Lutjanus erythropterus*.

Combined Goldband snapper species when used in this division means all fish of the species *Pristipomoides*.

Combined Group species when used in this division means all retained species other than the combined Goldband species or combined Red snapper species and no-take species.

Combined By-catch species when used in this division means all non-retained species.

A6/1xxx series licence means an existing **Demersal** licence category. It is proposed the Demersal Fishery (DF) be assigned to this licence category symbol.

A16/1xxx series licence means an existing **Finfish Trawl** Licence category. It is proposed to abolish this licence category symbol and amalgamate the operator's into the Demersal Fishery.

DF Fishery licence means a licence issued to existing licence holders under the new Regulations or to new entrants who have purchased Fishery units or Quota units.

A **Fishery Unit**, when used in this division means a single share of the total shares available to the fishery (Initially, a total of 1 fishery unit for each kilogram of quota species TACC are to be issued for the whole fishery).

Entitlement (as fishery units) reflects the number of fishery units held by a licence at the commencement of the new Regulations. It is proposed each demersal licence will be granted similar amounts of fishery units (or shares) for each of the combined species groups in the fishery dependant upon licence type. Permanent transfers of fishery units may occur. When fishery unit is permanently transferred it is referred to as a 'fishery unit' transfer.

Quota unit when used in this division means the fishery unit allocation. The issue of quota units, i.e. 1 kg of whole fish of a particular species group allocated (in 1 kg units) to a licensee, is based on the entitlement of the licence for that licensing year and the TACC. When a transfer of an entitlements allocation occurs it is referred to as a 'quota unit' transfer.

Individual Transferable Quota (as quota units), when used in this division means the same as a quota unit.

Minimum Holdings (of quota units) when used in this division means a set amount (in kilograms) of quota units for each quota species group a licensee must have attached to the vessel prior to commencing fishing operations. To be reviewed annually and revised if necessary. The reviewed catch composition is applied to this figure and adjusted if necessary.