



DEEMED VALUE GUIDELINES

Guidelines for the review of deemed value rates
for fish stocks managed under the
Quota Management System



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SUMMARY

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| Goal | <i>To set deemed value rates that create an effective incentive for individual commercial fishers to balance catch with Annual Catch Entitlement and for the overall catch to remain at or below the total available Annual Catch Entitlement in any one year.¹</i> |
| Performance Measures | <ul style="list-style-type: none"> • The number of stocks over-caught and the level of over-catch per stock per fishing year. • The percentage of catch for each stock for which catch is not balanced with Annual Catch Entitlement (ACE). • The ratio of the total deemed value payments to the value of quota (at a general and stock level) – the target in relation to this indicator is less than 0.1% of the value of quota in any fishing year. |
| Principle 1 | <p>Deemed value rates must generally be set between the ACE price and the landed price:</p> <ul style="list-style-type: none"> • when deemed value rates are below the ACE price: increase deemed value rates to a level above the ACE price and below landed price to provide an incentive to balance catch with ACE; and • when deemed value rates are above the landed price: decrease deemed value rates to a level between ACE price and landed price to provide an incentive not to discard illegally. |
| Principle 2 | <p>Deemed value rates must generally exceed the ACE price by transactions costs.</p> <p>Deemed value rates must be generally set at least at the greater of:</p> <ul style="list-style-type: none"> • 20% above the 90th percentile ACE price; or • \$0.10 per kg above the 90th percentile ACE price. |
| Principle 3 | Deemed value rates must avoid creating incentives to misreport. |
| Principle 4 | Deemed value rates for constraining bycatch species may be higher. |
| Principle 5 | Deemed value rates must generally be set at twice the landed price for high value single species fisheries and species subject to international catch limits. |
| Principle 6 | Deemed value rates for Chatham Island landings may be lower. |
| Principle 7 | Interim deemed value rates must generally be set at 90% of the annual deemed value rate. |

¹ For the majority of stocks, the total available Annual Catch Entitlement (ACE) may exceed the Total Allowable Commercial Catch (TACC) in any one year due to under-fishing entitlements, where 10% of the un-fished ACE from one year is carried forward to the following year. Furthermore, for some stocks, in-season increases to the catch limit generate additional ACE in a particular year while the TACC remains unchanged. This is why the goal is for landed catch to remain within the total available ACE rather than within the TACC.

Principle 8 Differential deemed value rates must generally be set:

- Standard differential deemed value rate schedule for most stocks

| Catch in excess of ACE holdings | Differential deemed value rate as a percentage of the annual deemed value rate |
|---------------------------------|--|
| 0–20% | 100% |
| > 20% | 120% |
| > 40% | 140% |
| > 60% | 160% |
| > 80% | 180% |
| > 100% | 200% |

- Differential deemed value rate schedule for low value, low TACC stocks

| Catch in excess of ACE holdings | Differential deemed value rate as a percentage of the annual deemed value rate |
|---------------------------------|--|
| 0–100% | 100% |
| >100% | 150% |
| >200% | 200% |

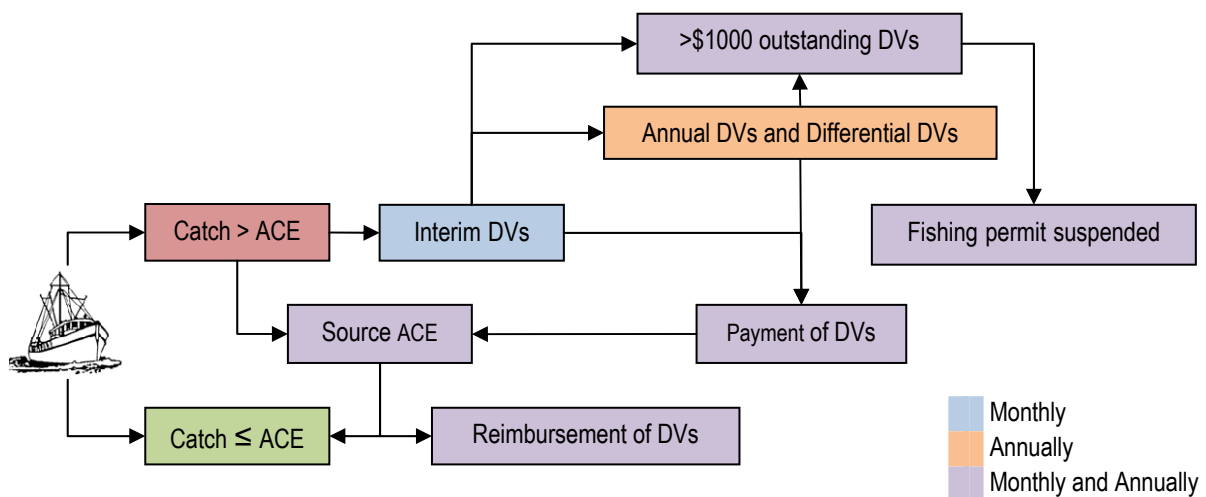
- Stringent differential deemed value rate schedules for highly vulnerable stocks or rebuilding stocks.

INTRODUCTION

THE DEEMED VALUE FRAMEWORK AND THE ROLE OF THESE *GUIDELINES*

The catch-balancing regime and deemed value framework are key fisheries management tools contributing to both sustainability and utilisation objectives, for stocks managed under the Quota Management System (QMS). The deemed value framework is a key mechanism to protect the integrity of the QMS, providing incentives for commercial catch to not exceed catch limits. Deemed values are supposed to encourage commercial fishers to balance their catch with Annual Catch Entitlement (ACE), while not discouraging them from landing and accurately reporting catch.

Sustainability objectives are achieved when deemed value rates encourage fishers to balance catch with available ACE and in doing so, seek to constrain harvesting to the Total Allowable Commercial Catch (TACC), or, where applicable, the total available ACE. Catches in excess of TACCs/total available ACE may affect the sustainability of stocks and may undermine the long-term value of the resource and kaitiakitanga. The deemed value framework is illustrated in the figure below.²



Utilisation objectives are achieved by providing flexibility for commercial operators to manage unexpected and small overruns in ACE holdings by allowing periodic catch-balancing. In the long-term, over-catching of a TACC could result in TACC reductions, if it leads to a reduction in stock size, and to impacts on resource use by others sectors. This undermines utilisation objectives.

² Interim deemed value rates are charged each month to fishers for every kilogram of fish landed in excess of their ACE holdings. If the fisher sources enough ACE to cover his or her catch by the end of the fishing year, the interim rates paid are reimbursed. If the fisher does not source enough ACE by the end of the fishing year, the difference between the interim and annual deemed value rates is charged for all catch in excess of ACE; the annual rate applies at the end of the fishing year. Differential deemed value rates, if applicable, are also charged at the end of the fishing year if the fisher harvested well in excess of his or her ACE holdings. For example, differential deemed value rates are charged for catch more than 20% in excess of ACE, when the standard differential deemed value rate schedule applies. Differential rates reflect the increasingly detrimental impact of higher levels of over-catch on sustainability and utilisation objectives.

The *Deemed Value Guidelines* set out an operational policy to inform the advice that the Ministry for Primary Industries (MPI) provides to the Minister for Primary Industries (the Minister) on setting deemed value rates.

THE LEGAL CONTEXT

Section 75 of the Fisheries Act 1996 (the Act), provides the statutory framework for setting deemed values. That section requires the Minister to set deemed value rates for QMS stocks and sets out the matters the Minister must consider when doing so.

Within the statutory framework, the Minister has considerable discretion when setting deemed value rates. The *Guidelines* are a statement of how MPI will use the criteria in the statute to develop its advice to the Minister on deemed value rates. The *Guidelines* do not bind the Minister. When making decisions on deemed value rates, the Minister uses the statutory criteria in making decisions and can act within the bounds of the statute, notwithstanding the *Guidelines*.

Under section 75(2)(a), the Minister must consider whether deemed value rates are set at levels that provide an incentive to balance catch with ACE. Once the Minister has considered the issues that arise as mandatory considerations, she/he may also consider the discretionary criteria under section 75(2)(b):

- a) the desirability of commercial fishers landing catch for which they do not have ACE;
- b) the market value of ACE for the stock;
- c) the market value of the stock;
- d) the economic benefits obtained by the most efficient commercial fisher, licensed fish receiver, retailer, or any other person from the taking, processing, or sale of fish, aquatic life or seaweed;
- e) the extent to which catch of that stock has exceeded or is likely to exceed the TACC for the stock in any year; and
- f) any other matters that the Minister considers relevant.

GOAL AND MEASURES OF PERFORMANCE

GOAL

The goal of the *Guidelines* is to outline principles to *set deemed value rates that create an effective incentive for individual fishers to balance catch with Annual Catch Entitlement and for the overall catch to remain at or below the total Annual Catch Entitlement available in any one year.*³

MEASURING PERFORMANCE

In light of this goal, the performance of the deemed value framework will be measured using the following indicators:

- the number of stocks over-caught and the level of over-catch per stock per fishing year;
- the percentage of catch for each stock for which catch is not balanced with ACE; and
- the ratio of the total deemed value payments to the value of quota (at a general and stock level) – the target in relation to this indicator is less than 0.1% of the value of quota in any fishing year.

MPI will also use these performance indicators where applicable, in addition to other relevant information such as landed price changes, to identify stocks for which a deemed value rate review may be necessary. Which stocks to review deemed value rates for will be determined in discussion with tangata whenua, industry representatives and other stakeholders within the fisheries planning processes for inshore, deepwater and highly migratory species fisheries.

³For the majority of stocks, the total available ACE may exceed the TACC in any one year due to under-fishing entitlements, where 10% of the un-fished ACE from one year is carried forward to the following year. Furthermore, for some stocks, in-season increases to the catch limit generate additional ACE in a particular year while the TACC remains unchanged. This is why the goal is for landed catch to remain within the total available ACE rather than within the TACC.

PRINCIPLES FOR SETTING DEEMED VALUE RATES

Deemed values are economic tools; they provide economic incentives and disincentives which are directly related to other economic variables such as operating costs, ACE prices, transaction costs of acquiring ACE, and landed fish prices. When any of these factors change the incentives created by deemed values also change. Accordingly, deemed value rate changes will generally be small, relatively frequent adjustments consistent with economic changes rather than significant occasional changes. The effectiveness of deemed values is dependent on individual commercial fishers' compliance with landing and reporting requirements, their responses to the incentives provided and on the impact of other incentives such as those created by market conditions.

MPI will use the following principles to assess stocks for which to review deemed value rates and to guide the development of its advice to the Minister on deemed value rates. These principles recognise the various economic incentives that commercial fishers face and give effect to the Minister's obligations under section 75 of the Act.

PRINCIPLE 1: DEEMED VALUE RATES MUST GENERALLY BE SET BETWEEN THE ACE PRICE AND THE LANDED PRICE

A deemed value rate above the ACE price and below landed price generally provides the correct incentives. The following actions will create the correct incentives for commercial fishers to acquire ACE to cover their catch:

- when deemed value rates are below the ACE price: increase deemed value rates to a level above the ACE price and below landed price to provide an incentive to balance catch with ACE; and
- when deemed value rates are above the landed price: decrease deemed value rates to a level between ACE price and landed price to provide an incentive not to discard illegally.

Because ACE for some stocks is traded infrequently, the available information on ACE price may be inadequate. When there is evidence of intentional fishing on deemed values, MPI will assume that the fisher could not acquire ACE at less than the deemed value rate and that the price of ACE should be assumed to be above the deemed value rate. MPI will generally recommend increases in the deemed value rate in this circumstance.

In certain circumstances (including some described below) it may be appropriate to depart from this principle. MPI will outline this to the Minister on a case-by-case basis.

PRINCIPLE 2: DEEMED VALUE RATES MUST GENERALLY EXCEED THE ACE PRICE BY TRANSACTION COSTS

If ACE price is close to the deemed value rate there may be an incentive for fishers to pay the deemed value instead of acquiring ACE to balance their catch to avoid the transaction costs involved in making an ACE trade (for example, transfer registration fee, time, brokerage fees).

ACE prices vary as other economic factors, such as the price of fish, exchange rates, and fuel prices, vary. Deemed value rates should generally be set at least 20 percent above the 90th percentile ACE price. This is to ensure that the ACE price used is representative of the majority of market trades and that the difference between the deemed value rate and the ACE

price is sufficient to create an effective incentive. This reference point should be used for setting deemed value rates for most stocks.

However, for relatively low value species (for example, where the ACE price is less than \$0.15 per kilogram) 20 percent above the ACE price will not cover transaction costs for most trades. A second reference point that is a minimum amount per kilogram above the ACE price should be used. It is assumed that total transaction costs are approximately \$100.00 per ACE transaction and that fishers would source ACE instead of paying deemed values for landings greater than 1 tonne. Therefore, the transaction cost would be \$0.10 per kg, if the \$100.00 transaction costs are spread over 1 tonne.

Therefore, deemed value rates should be generally set at least at the greater of:

- 20 percent above the 90th percentile ACE price; or
- \$0.10 per kg above the 90th percentile ACE price.

In certain circumstances it may be appropriate to depart from this principle. MPI will outline this to the Minister on a case-by-case basis.

PRINCIPLE 3: DEEMED VALUE RATES MUST AVOID CREATING INCENTIVES TO MISREPORT

When two adjacent Quota Management Areas (QMAs) for the same species have substantially different deemed value rates, there may be an incentive to misreport the QMA in which the fish was taken in order to benefit from a lower deemed value rate. The impact of differences in deemed value rates across QMAs are important considerations. For most species, prices across adjacent QMAs are likely to be similar, because arbitrage in markets will result in movements of fish to equalise prices. Because the upper bound on deemed value rates in most circumstances is landed price, the upper bound for adjacent QMAs will often be similar. Thus, setting the same or very similar deemed value rates across different QMAs is often likely to be feasible.

There are reasons to consider more uniform deemed value rates across QMAs, but these reasons must be weighed against other considerations on a case-by-case basis. There are regional differences in the prices of some species and these differences must also be considered when setting deemed value rates.

For the avoidance of doubt, in the case of the Kermadec Fishery Management Area (FMA10), deemed value rates should be set at the highest annual deemed value rate applicable in the Auckland and Central Fishery Management Areas (FMA1 or FMA2) for the relevant species.

Likewise, for very similar yet different species, it may be appropriate to consider setting the same or very similar deemed value rates to avoid creating any incentives for species misreporting.

PRINCIPLE 4: DEEMED VALUE RATES FOR CONSTRAINING BYCATCH SPECIES MAY BE HIGHER

An important exception to Principle 1 occurs in some cases when a relatively low value species is taken as bycatch in a multi-species fishery. In such cases, the catch of that bycatch species may constrain the ability to catch the target species.

In this case, the bycatch species is said to have a “shadow value” greater than landed price, reflecting its value in allowing greater catches of target species in the overall fisheries complex. When the shadow value is high, the deemed value rate that will encourage catch to remain within the total available ACE/TACC may exceed the landed price.

When the ACE price and the deemed value rate are above the landed price, incentives to illegally discard are created. This may be an inevitable result of providing appropriate incentives under section 75(2)(a) for fishers to acquire ACE to cover their catches. It may be necessary to rely on compliance and enforcement tools to prevent illegal discarding when this occurs. The application of this principle will be considered on a case-by-case basis.

PRINCIPLE 5: DEEMED VALUE RATES MUST GENERALLY BE SET AT TWICE THE LANDED PRICE FOR HIGH VALUE SINGLE SPECIES FISHERIES AND FOR SPECIES SUBJECT TO INTERNATIONAL CATCH LIMITS

The appropriate incentive for high value single species fisheries (that is, with no or minimal bycatch) is to provide a very strong incentive to catch only the amount for which fishers have ACE. This has been accomplished by setting the annual deemed value rate at approximately twice the landed price. This principle has also been applied to southern bluefin tuna, which is subject to an international catch allocation.

Under such a deemed value rate, a fisher would suffer a large loss on any catches in excess of ACE. By setting the deemed value rate at twice the landed price, it is very unlikely that any incentive would arise to land catch in excess of ACE, even if landed prices increase significantly during a fishing year. This is consistent with section 75(2)(a) as it provides a strong disincentive against catches in excess of ACE. In addition to southern bluefin tuna, this setting has been applied to all rock lobster stocks, to all paua stocks and to all deepwater clam stocks. The application of this principle to other stocks needs to be considered on a case-by-case basis.

PRINCIPLE 6: DEEMED VALUE RATES FOR CHATHAM ISLAND LANDINGS MAY BE LOWER

Under section 75(5), the Minister may set deemed value rates for Chatham Islands-based commercial fishers for fish landed to a licensed fish receiver in the Chatham Islands that are different from deemed value rates applicable to fish from the same stock landed elsewhere. The price for fish landed in the Chatham Islands is generally lower than the price for the same species landed elsewhere because of the higher cost of transporting fish to markets. Therefore, there may be reasons to set different deemed value rates for the Chatham Islands.

For many stocks, the deemed value rates for the Chatham Islands has been set at about 50 percent of the deemed value rate applicable elsewhere in the same QMA. No strict procedures are appropriate. Instead deemed value rates applicable to Chatham Islands-based fishers need to be considered on a case by case basis, in light of the relevant economic conditions of each fishery.

PRINCIPLE 7: INTERIM DEEMED VALUE RATES MUST GENERALLY BE SET AT 90% OF THE ANNUAL DEEMED VALUE RATE

Interim deemed value rates should usually be set at 90 percent of the annual rate. If the interim deemed value is below the ACE price, fishers have an incentive to delay acquiring ACE. The result can be to delay the balancing of catch until the end of the fishing year. This

may lead to a race for ACE and insufficient ACE to cover all catch and thereby potentially contribute to the TACC/total available ACE being exceeded.

There may be stock-specific reasons to set interim deemed value rates at some percentage other than 90 percent of the annual rate in some cases. These will be considered when appropriate.

PRINCIPLE 8: DIFFERENTIAL DEEMED VALUE RATES MUST GENERALLY BE SET

Differential deemed value rates reflect the increasingly detrimental impact of higher levels of over-catch on sustainability and utilisation objectives. Therefore, differential deemed value rates should generally apply to all stocks, although exceptions to this principle will be considered on a case by case basis. In developing its advice, MPI will propose to use differential deemed value rates flexibly to achieve the management goals for different fisheries.

Different differential deemed value rate settings are appropriate for different fisheries. This will be considered on a case by case basis, but for most stocks MPI will advise the Minister to set differential deemed value rates according to the following schedules:

Standard differential deemed value rate schedule for most stocks

For most stocks, MPI will recommend the use of a standard differential deemed value rate schedule (standard schedule), as set out in Table 1.

Table 1: Standard differential deemed value rate schedule

| Catch in excess of ACE holdings | Differential deemed value rate as a percentage of the annual deemed value rate |
|---------------------------------|--|
| 0 - 20 % | 100 % |
| > 20 % | 120 % |
| > 40 % | 140 % |
| > 60 % | 160 % |
| > 80 % | 180 % |
| > 100 % | 200 % |

Differential deemed value rates for low value, low TACC stocks

The QMS provides for a number of stocks for which targeted fishing does not occur and low TACCs are set to account for occasional, small unintended bycatch. The standard differential deemed value schedule is not appropriate for these stocks. However, deliberate over-catching of these stocks on deemed values is not appropriate either.

The general principle for these stocks is unchanged: differential deemed values should reflect a qualitative assessment of the sustainability risk of over-catching. Higher levels of over-catch may be less of a concern for these stocks than similar levels of over-catch for larger and more valuable stocks. The low TACC and relatively high variability mean that high levels of over-catch will frequently occur as a matter of chance. As a starting point, MPI will consider recommending the following differential deemed value structure for these stocks:

Table 2: Differential deemed value rate schedule for low value, low TACC stocks

| Catch in excess of ACE holdings | Differential deemed value rate as a percentage of the annual deemed value rate |
|---------------------------------|--|
| 0-100% | 100% |
| >100% | 150% |
| >200% | 200% |

MPI may recommend alternative schedules for low value, low TACC stocks in some circumstances.

Stringent differential deemed value rate schedules for highly vulnerable or rebuilding stocks

Stringent differential deemed value rate schedules are applied to some stocks where utilisation and sustainability objectives are best met by providing very strong incentives for catch to not exceed ACE. This may be the case when the TACC is set very close to the sustainable limit or for highly vulnerable or rebuilding stocks. The exact structure of the schedule will be tailored to the stock in question. For example, the first differential step may reflect an assessment of how much a fisher acting with ordinary care might exceed his or her ACE holdings in their last tow of the season.