



Amendments to commercial freshwater eel fishing regulations

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1 Introduction

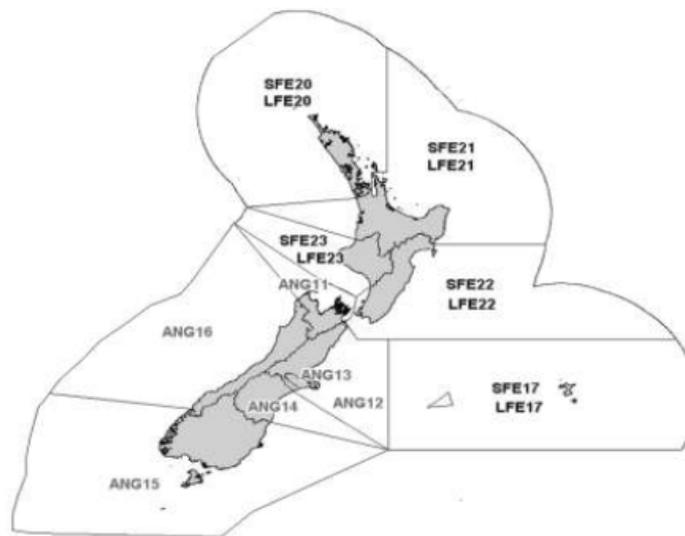


Figure 1. Freshwater eel Quota Management Areas

This discussion paper provides the Ministry for Primary Industries' (MPI) initial views on proposals to amend regulations governing commercial freshwater eel fishing. The views and recommendations outlined in the paper are preliminary and are provided for the purpose of consultation with tangata whenua, the eel industry and other stakeholders.

The proposals are to:

- A. reduce or revoke the minimum Annual Catch Entitlement (ACE) holding requirement for South Island eel stocks; and
- B. align the minimum legal diameter of fyke net escape tubes applicable in the North Island and Chatham Islands with that applicable in the South Island.

The eel industry proposed that these requirements be reviewed, in the context of MPI's planning process for freshwater fisheries. The proposals are specified as management actions in MPI's [Annual Operational Plan for Freshwater Fisheries 2012/13](#). They are aimed at increasing the benefit obtained from the use of eel fisheries while upholding the stocks' sustainability.

Eel fisheries are managed under the Quota Management System (QMS) within the Fisheries Act 1996 (the Act). Management of eel fisheries is guided by the [draft National Plan for Freshwater Fisheries](#) (the Plan), an MPI policy document which came into operation from July 2011. The Plan sets out management objectives for freshwater fisheries. The goal of the Plan, as set out in [Fisheries 2030](#), is to maximise the benefits (economic, social and cultural) obtained from the use of fisheries within environmental limits. The proposed regulatory changes are considered within this context. For additional information about the management of eel fisheries please refer to the Appendix.

1.1 CONSULTATION

Tangata whenua, the industry and other stakeholders are encouraged to provide additional information of relevance to, and their views on, these proposals. Submitters' points will be included in final advice to the Minister for Primary Industries on these issues.¹

Written submissions can be sent in until Friday 19 April 2013 and should be directed to:

Inshore Fisheries Management
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PO Box 2526
WELLINGTON 6140
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2 Proposals

In relation to the South Island minimum ACE holding requirement, MPI proposes to:

Option A1 - <i>(current situation)</i>	make no change Schedule 8 of the Act, leaving the current minimum ACE holding requirement for South Island eel stocks at four tonnes; OR
Option A2 -	amend Schedule 8 of the Act to reduce the minimum ACE holding requirement for South Island eel stocks from four tonnes to one tonne; OR
Option A3 -	omit South Island eel stocks from Schedule 8 of the Act, effectively removing the minimum ACE holding requirement for South Island eel stocks altogether.

And, in relation to the North Island and Chatham Islands minimum legal diameter for fyke net escape tubes, MPI proposes to:

Option B1 - <i>(current situation)</i>	make no change to the Fisheries (Commercial Fishing) Regulations 2001, leaving the current minimum legal diameter for fyke net escape tubes in the North Island and the Chatham Islands at 25mm; OR
Option B2 - <i>(preferred option)</i>	amend the Fisheries (Commercial Fishing) Regulations 2001 to increase the minimum legal diameter for fyke net escape tubes in the North Island and the Chatham Islands from 25mm to 31mm, aligning this with the requirement currently applicable in the South Island.

¹ All submissions are subject to the Official Information Act 1982 (OIA) and can be released, if requested under the OIA. If you have specific reasons for wanting to have your submissions withheld, please set out your reasons in the submission. MPI will consider those reasons when making any assessment for the release of submissions if requested under the OIA.

3 Review of minimum Annual Catch Entitlement holding requirement for South Island eel stocks

3.1 OBJECTIVE

The objective of this review is to increase the commercial value of the South Island eel fishery.

3.2 PROBLEM DEFINITION

The current minimum ACE holding requirement may have become an unwarranted barrier to entry into the fishery and it appears to be either excessively restrictive or unnecessary. The requirement may thus be constraining value derived from the fishery, particularly in the face of increased demand and price for eels.

3.3 CURRENT SITUATION

South Island eel stocks are listed in Schedule 8 of the Act; each commercial eel fisher is generally required to hold four tonnes of ACE (derived from quota) before fishing for eels in a given QMA.

This requirement has been in place since South Island eel stocks were introduced into the QMS in 2000. The requirement was recommended in the 1996 South Island Eel Management Plan developed by Te Waka a Maui me ona Toka Mahi Tuna², which recommended the introduction of South Island eel stocks into the QMS. The intent of the requirement was to limit the number of fishers by excluding those who have only a marginal interest in the fishery and ensuring that fishers have harvesting rights before going fishing. An equivalent requirement applies to other high value single species fisheries like rock lobster and paua to reduce the risk of black market activity associated with marginal commercial operations. This requirement does not apply to North Island eel stocks and is not deemed to be necessary there as there have been no issues with over-investment or overcapitalisation in that fishery.

There are approximately 30 active eel fishers operating in the South Island. Approximately 70% of them do not own any or sufficient quota to meet the four tonne holding to access the fishery and are therefore required source additional ACE every year.³

ACE is generally provided to fishers by quota-holders/licensed fish receivers (LFRs) at the start of the season and discounted from the price paid for eels once they are landed. If fishers do not actually catch four tonnes of eels and cannot transfer ACE to another fisher or back to the quota-holder/LFR before the end of the season, they effectively prevent other fishers from using those harvesting rights.

In recent years, particularly due to this requirement and the increasing international demand for eels (and thus increasing price and demand for ACE), there has been a shortage of ACE

² A ministerial advisory body for the management of the South Island eel fishery composed of tangata whenua and South Island eel industry representatives.

³ Even if quota was available in the market, the cost of buying enough quota to generate the required amount of ACE every year would be prohibitive (approximately \$80,000 per fisher per QMA). Four tonnes of ACE cost on average \$2,000 per fisher per stock.

for some South Island eel stocks. The requirement has become a barrier to entry into the fishery as every fisher needs to hold at least four tonnes of ACE through the season, even if they fish less than that.

3.4 IMPACT, COSTS AND BENEFITS

The current restriction (Option A1) appears to be either excessively restrictive or redundant given that:

- introduction into the QMS resulted in a significant rationalisation and reduction in the number of active fishers both in the North Island and in the South Island;
- a minimum ACE holding requirement does not apply, and is not believed to be necessary, for North Island and Chatham Island eel stocks;
- catch is limited to the Total Allowable Commercial Catch (TACC), regardless of how many fishers are involved;
- TACCs for all eel stocks are subject to a significant level of protection through relatively high deemed value rates and overfishing thresholds;⁴ and
- the risk of black market activities associated with marginal commercial operations is believed to be relatively low for eel fisheries.

The current requirement may be constraining the benefit obtained from the commercial use of South Island eel stocks and preventing new part-time fishers from accessing the fishery. The proposed changes would reduce compliance costs for individual South Island commercial fishers and quota-owners/LFRs by eliminating the transaction costs and lost revenue resulting from the current requirement.

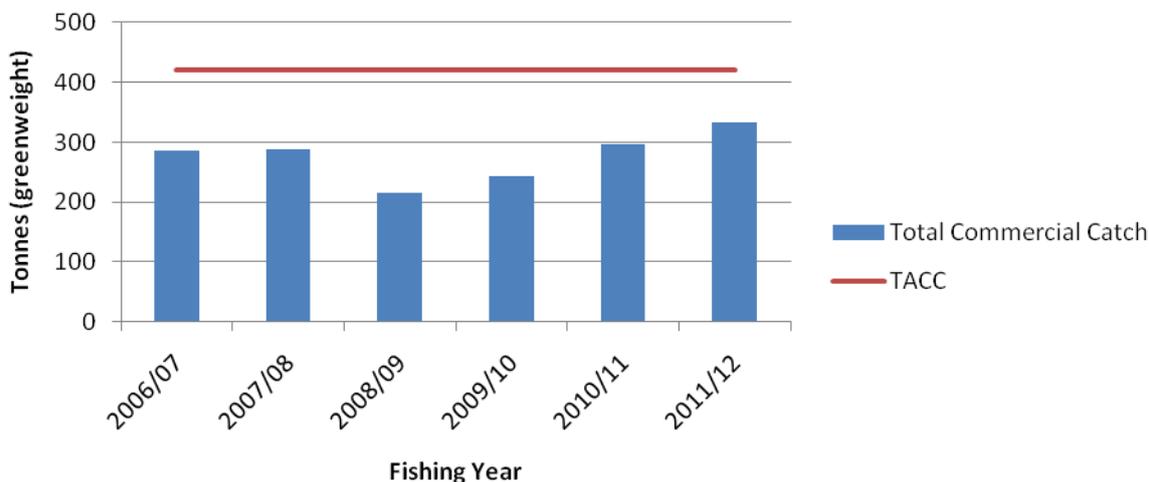
As illustrated in Figure 2, South Island eel catch has been increasing in recent years; the total catch for the 2011/12 fishing year was 333 tonnes. The industry estimates that the proposed changes would result in a further increase in catch of between 10% and 20%. Based on these estimations, such an increase would result in a total catch of between 366 and 400 tonnes, lower than the current TACC (420 tonnes). In turn, assuming an average export price of \$15/kg, this increase would result in additional export revenue of between \$0.5 and \$1 million, benefiting South Island commercial fishers and processors.

Because the current requirement (Option A1) is effectively restricting entry into the fishery, there is some risk that removing the requirement altogether (Option A3) could lead to over investment and overcapitalisation in the fishery (e.g. if reductions to TACCs are necessary in the future). Likewise, by attracting new part-time fishers, there is a risk of creating opportunities for black market activities associated with marginal commercial operations, particularly given the increasing price for eels. Furthermore, removal of the requirement could create opportunities for area misreporting as fishers would no longer be generally restricted to operating in one QMA, as is currently the case.

⁴ [Deemed values](#) are civil financial penalties charged to commercial fishers for all catch in excess of ACE. For eel stocks, the interim deemed value rate (charged every month) is currently \$4.00/kg; the annual rate (charged at the end of the fishing year) is \$10/kg, increasing by 20% for every 20% of catch in excess of ACE holdings up to a maximum of 100%. [Over-fishing thresholds](#) prohibit fishers from continuing to operate in a particular QMA if their catch is 5% plus 25 kg in excess of their ACE holdings.

MPI believes these risks (overinvestment, overcapitalisation and illegal activities) do not outweigh the benefits of the proposal and could be monitored and managed with existing restrictions and through compliance and enforcement activities already occurring in the fishery. Furthermore, these issues have not eventuated in the North Island, where, as indicated above, the requirement does not apply.

Figure 2 - South Island eel commercial catch and TACC



To further minimise these risks (overinvestment, overcapitalisation and illegal activities associated with marginal commercial operations), a reduction of the minimum ACE holding to 1 tonne (Option A2) is also proposed. This will ensure fishers are still required to hold some harvesting rights prior to going fishing, while reducing the current requirement. Maintaining a 1 tonne minimum ACE holding requirement would also exclude very marginal commercial operations.

Aside from these risks (overinvestment, overcapitalisation and illegal activities associated with marginal commercial operations) and the administrative costs of making the necessary regulatory changes, this proposal is not expected to result in any other costs for the industry, other resource users or MPI.

Tangata whenua and stakeholders are encouraged to submit their views on this proposal and in particular information on:

- their perception of what are the current barriers to entry into the fishery;
- their perception of the ongoing relevance or otherwise of the minimum ACE holding requirement in the South Island eel fishery;
- the impact of the current minimum holding requirement on their fishing activities and business;
- the costs and benefits that the proposed changes would have on their fishing activities and business; and
- their assessment on the risks likely to be created under the proposed changes.

4 Minimum legal diameter for fyke net escape tubes in the North Island and the Chatham Islands

4.1 OBJECTIVE

The objective of this proposal is to provide for ongoing effective escapement of undersize eels from commercial fyke nets in the North Island and Chatham Islands.

4.2 PROBLEM DEFINITION

The current minimum legal diameter for fyke net escape tubes in the North Island and the Chatham Islands (25 mm) is not effective to achieve its purpose to allow escapement of eels below the minimum size as it would retain undersize eels. Although the minimum weight limit for eels is the same all over the country (220 g), fyke nets in the South Island are required to have larger escape tubes (31 mm) which are effective in achieving their purpose to allow escapement of undersize eels. Consequently, the North Island eel industry has voluntarily adopted a higher standard, equal to the regulated measure applicable in the South Island, although it is not confident that the voluntary agreement is strong enough to ensure compliance and effective enforcement in the long term (e.g. with new entrants).

4.3 CURRENT SITUATION

Fyke nets are the most common commercial fishing method used to catch eels. Commercial eel fishers are required to have at least two escape tubes in their fyke nets (as shown in Figure 3) to allow the escapement of undersize eels (less than 220 g). In the North Island and Chatham Islands, the escape tubes are required to have a minimum diameter of 25 mm.⁵ This diameter is substantially smaller than that required for escape tubes on the South Island (31mm), even though the minimum weight limit for eels is the same.



Figure 3. Fyke net with escape tubes.

A fyke net fitted with 25 mm escape tubes would not allow escapement of undersize eels; according to industry reports it will hold longfin eels as small as 180 g and shortfin eels as small as 200 g. According to industry reports and sampling data, fyke nets fitted with 31 mm escape tubes (as per the South Island requirement, the North Island voluntary Code of

⁵ The ends of the tubes are also required to have a minimum diameter of 29 mm; the tubes must be at least 35 mm in length and must project inside the net by no more than 10 mm.

Practice and Option B2) generally hold eels of at least 280 – 300 g, well within the minimum legal weight. The current requirement is therefore ineffective.

The industry reports that the vast majority of North Island commercial eel fishers currently use 31mm diameter escape tubes under a voluntary Code of Practice to increase the escapement of undersize and smaller legal size eels and to increase the yield per recruit of their catch. However, the industry is not confident that the voluntary agreement will result in ongoing compliance and effective enforcement, particularly in the case of any new entrants which may choose to not comply with the agreement. There are anecdotal reports from the industry and Fishery Officers about isolated instances of non-compliance with the voluntary measure. However, it is not possible to accurately quantify the extent of these instances.

Many fishers are relatively close to retirement and in the face of increased demand for and price of eels, it is reasonable to expect that new players (fishers, quota owners, LFRs), will be entering the fishery in the near future. It is the industry's view that ongoing compliance with the voluntary measure cannot necessarily be guaranteed with new players.

There are 44 active commercial eel fishers operating in the North Island. They harvested 417 tonnes of eels during the 2011/12 fishing year; this should have generated export revenue of approximately \$6.3 million. Each fisher operates between 20 and 60 fyke nets with at least two escape tubes each.

4.4 IMPACT, COSTS AND BENEFITS

Under the current situation (Option B1), the regulated minimum diameter of fyke net escape tubes in the North Island and the Chatham Islands would continue to be ineffective to allow escapement of undersize eels. There will continue to be an unjustified discrepancy between weight limits (220 g) and the minimum diameter of fyke net escape tubes applicable in the South Island, and in the North Island and Chatham Islands.

Ongoing compliance with the industry's voluntary measure would continue to rely on the strength of industry's governance arrangements. Currently this depends on LFR/quota-owner's limited coercion of individual fishers. Industry representatives are not confident of the ongoing strength of this arrangement in the future, as new entrants enter the fishery. Even today there are anecdotal reports of occasional non-compliance with the voluntary measure.

Use of the 25 mm diameter escape tubes (as per the current minimum requirement and Option B1, in the absence of the industry's voluntary measure) would result in catch of a higher proportion of undersize and smaller legal size eels which would:

- be inefficient as fishers would need to sort through their catch thoroughly before landing, and may have to return a greater proportion of their catch back to the water;
- create a risk of fishers failing to comply with the minimum legal weight limit if catch sorting is not thorough;
- be inefficient because smaller legal size eels are worth less than larger eels;⁶ and

⁶ The landed price per kilogram for smaller eels is less than for larger eels (e.g. in July 2012, \$4.10/kg for eels <300g vs. \$7.85/kg for eels >1kg) and the cost of processing smaller eels is greater due to the additional handling required.

- may affect the welfare of undersize eels due to unnecessary handling.

Furthermore, take of a higher proportion of smaller legal size eels through the use of the current minimum legal diameter escape tubes would result in a lower yield per recruit and may eventually result in a lower number of migrating eels.⁷ This may also affect the future availability of larger eels for other resource users (e.g. customary fishers).

The actual short term impact of the proposed change (Option B2) on fishers and the fishery would be marginal given that, for the reasons outlined above, the majority of North Island commercial fishers are reported to already use the larger escape tubes voluntarily. Furthermore, there is currently no active commercial eel fishery in the Chatham Islands.

Nonetheless, the main benefit of the proposal would be to make the requirement for minimum diameter for fyke net escape tubes for the North Island and Chatham Islands effective in ensuring escapement of undersize eels and would also make it consistent with the requirement applicable in the South Island. The regulation would strengthen the voluntary practice adopted by the industry and would support future compliance and enforcement, particularly in relation to new entrants. This would ensure that the current benefits from use of the larger escape tubes are maintained into the future. It is also consistent with the objective of maintaining adequate spawning biomass.

For any North Island commercial eel fishers that may be currently using escape tubes of less than 31 mm, the cost of replacing their escape tubes is approximately \$5 per fyke net (\$300 for a set of 60 nets). However, as mentioned above, the eel industry reports that the majority of fishers already use 31mm escape tubes. Aside from any gear modification costs required and the administrative costs of making and implementing regulatory changes, this proposal is not expected to result in additional costs to the industry, other resource users or MPI.

Tangata whenua and stakeholders are encouraged to submit their views on this proposal and in particular information on:

- the extent of the voluntary uptake of the larger fyke net escape tube diameter across the North Island;
- their suggestions of how to strengthen industry governance arrangement and ensure ongoing compliance with the voluntary measure (under Option B1);
- their assessment of the impact of the current escape tube requirement on the sustainability and value of the fishery;
- the costs and benefits that the proposed changes would have on their fishing activities and business; and
- their assessment on the risks likely to be created under the proposed changes.

⁷ If the total catch has a higher proportion of smaller eels, a higher number of individual eels will need to be caught for a given amount of catch, than if it had a higher proportion of larger eels.

5 Monitoring and Review

Through the annual fisheries planning process described above, MPI monitors and reviews the effectiveness of regulations in supporting management objectives. The performance of the fishery and of the regulations proposed in this paper would be monitored and reviewed in discussion with tangata whenua, the industry and other stakeholders as part of this process.

In the case of ACE holdings, the impact of the changes may be measured by comparing the amount of fishers involved, the value of the fishery (in terms of ACE price and quota value) and total catch before and after the change.

In the case of fyke net escape tubes, compliance rates with the proposed increased minimum diameter can start to be monitored as part of existing compliance activities occurring within the fishery. These could be compared over time.

6 Conclusions

The proposals presented in this paper seek to support industry initiatives to increase the value obtained from the use of eel fisheries while upholding sustainability. Nonetheless the main mechanism to provide for sustainability are catch limits which, as described earlier, are reviewed periodically as new scientific information becomes available.

The proposed changes:

- are consistent with the government's statements on better and less regulation;
- would increase national alignment and consistency between the management of South Island and North Island/Chatham Islands commercial eel fisheries; and
- are aimed at increasing and protecting the value of eel fisheries while ensuring sustainability.

Tangata whenua, the eel industry and other stakeholders are encouraged to provide their views on, and additional information of relevance to, the proposals outlined in this paper. Submissions will be reflected in final advice to the Minister. Any changes resulting from the Minister's decisions would take effect following Cabinet's confirmation of the Minister's decisions, in October 2013.

Tangata whenua and stakeholders are encouraged to submit their views and additional information on these proposals and in particular:

- Is the description and analysis of the current situation an accurate reflection of your experience?
- Have the key features of each option been accurately and coherently set out?
- Have all the impacts of the options been identified and accurately described?
- Where applicable, is it clear why the preferred option is preferred over other options?
- Are the risks associated with each option clear?
- Is it clear how the performance of the regulation will be monitored and assessed?

7 Appendix - Management of eel fisheries

Like for all stocks in the QMS, catch limits for eel Quota Management Areas (QMAs, illustrated in Figure 1) are reviewed periodically in light of best available scientific information. The last time this occurred, in 2007, there were significant catch limit reductions for North Island eel stocks.

MPI, tangata whenua, the eel industry and other stakeholders devote a significant amount of effort and resources to monitoring the status of eel stocks. The main sets of fishery status indicators used to inform management of eel fisheries are:

- commercial catch per unit of fishing effort series;
- elver recruitment indices; and
- size frequency of commercial catch.

Additionally, there are various local research projects and information provided by tangata whenua, the eel industry and other stakeholders that also inform management of the fisheries.

Because of the unique life history of eels, their biological characteristics and their vulnerability to habitat change and loss, management must be cautious. In addition to catch limits, there are a range of other restrictions that commercial fishers have to comply with including:

- area closures - commercial fishing in National Parks and Reserves is generally prohibited and there are further area closures under the Fisheries Act 1996 – this provides for spawner escapement and significant protection for eels (e.g. about 30-34% of longfin eel habitat is within closed areas);
- where commercial fishing is allowed, fishers must comply with minimum and maximum weight restrictions, area restrictions, seasonal closures and gear restrictions, among other requirements.

Although the eel fishery is relatively small, it is estimated that during 2011/12 it generated more than \$10 million in export revenue and directly employed more than 70 commercial fishers. Eels are also a highly valued taonga species of significant importance for tangata whenua. Although information is very limited, there is some marginal recreational fishing interest in eels as well.