



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

MPI Regulatory Impact Statement

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Regulatory Impact Statement

MINIMUM LEGAL DIAMETER FOR FYKE NET ESCAPE TUBES IN THE NORTH AND CHATHAM ISLANDS

Agency Disclosure Statement

This Regulatory Impact Statement has been prepared by the Ministry for Primary Industries.

It provides an analysis of options to provide for national consistency in fyke net escape tubes regulations and ongoing effective escapement of undersize eels from commercial fyke nets in the North and Chatham Islands, to support management objectives. The proposal is to increase the minimum legal diameter of fyke net escape tubes applicable in the North and Chatham Islands, aligning it with that applicable in the South Island (i.e. 31mm).

Analysis of options has relied on information supplied by stakeholders, namely commercial fishers, and data from an eel sampling survey in the Waikato region. The proposal seeks to regulate a practice which is largely adopted voluntarily by commercial fishers in the North Island at present. Furthermore, there is effectively no commercial fishery in the Chatham Islands at this time. Therefore, the short term impact of the proposed change is expected to be marginal, although it would make the relevant regulations effective and consistent across the country.

In the medium to long term, the proposal is expected to maintain ongoing effective escapement of undersize eels from commercial fyke nets in the North and Chatham Islands, supporting use and sustainability objectives. Industry representatives do not believe the current voluntary arrangement is robust enough to ensure this outcome in the medium to long term. This is consistent with isolated anecdotal reports of non-compliance.

Following consultation, submissions have highlighted some costs of the proposal on some commercial fishers but MPI acknowledges that information on these may be incomplete. MPI believes these costs can be mitigated and do not outweigh the benefits of the proposal.

The proposal does not impair private property rights, market competition, or incentives on businesses to innovate and invest nor does it override fundamental common law principles.

The main risk with the proposal is non-compliance with either the voluntary or regulated use of the 31mm escape tubes. This risk is expected to be lower if the requirement is regulated.

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Summary of option analysis ¹

Options	STOCK SUSTAINABILITY Objective : Maintain adequate spawning biomass to provide for high levels of recruitment	USE Objective: Secure social, economic and cultural benefits from each stock			GOVERNANCE Objective: Effective and consistent regulatory framework	Comment
		Customary	Amateur	Commercial		
Minimum legal diameter for fyke net escape tubes in the North and Chatham Islands commercial eel fisheries						
Option 1 – Voluntary use of 31mm escape tubes	✓ Use of 31mm escape tubes will result in a higher yield per recruit and therefore provide for a higher level of escapement of undersize and smaller legal-size eels in the short term at least.	✓ Higher escapement of undersize and smaller legal- size eels may increase availability for non-commercial fishers in the short term at least.	– Marginal use of eel fisheries.	✓ In all areas for the short term at least.	✗ Regulation on minimum fyke net escape tubes for the North and Chatham Islands will continue to be ineffective and inconsistent in different parts of the country.	Relies on ongoing adherence to voluntary agreement.
Option 2 – Regulate use of 31mm escape tubes	✓ Use of 31mm escape tubes will result in a higher yield per recruit and therefore provide for a higher level of escapement of undersize and smaller legal-size eels.	✓ Higher escapement of undersize and smaller legal- size eels may increase availability for non-commercial fishers.	– Marginal use of eel fisheries.	✓ ✗ In most areas. Will limit access to areas with stunted shortfin eels (~\$80,000 in lost revenue per year), although some of this impact could be mitigated.	✓ Regulation on minimum fyke net escape tubes for the North and Chatham Islands will be effective in achieving its intended purpose and consistent in different parts of the country.	Relies on compliance with regulation and/or effective enforcement

MPI considers there are no other viable non-regulatory options.

¹ KEY: ✓ = option supports objective; ✗ = option does not support objective; – = unlikely change/impact.

Status quo



Figure 1 – fyke net with escape tubes

fyke net escape tube requirement is one of those differences. To a large extent, the reason for separate management was because a joint industry-iwi group used to advise the Minister on management of South Island eel fisheries, while no equivalent group was in place for the North and Chatham Islands. Today management of all eel fisheries is guided by a national fisheries planning process. MPI does not believe there is a justifiable reason for the current difference in the required size of escape tubes.

3. A fyke net fitted with 25mm escape tubes would not generally allow escapement of undersize eels; according to industry reports it will generally hold longfin eels as small as 180g and shortfin eels as small as 200g. According to industry reports and sampling data for the Waikato Region, fyke nets fitted with 31mm escape tubes (as per the South Island requirement) generally hold eels of at least 280g-300g, well within the minimum legal weight. The current requirement for 25mm in the North and Chatham Islands provides flexibility for some commercial fishers (3 identified) to access populations of stunted shortfin eels in small areas of the North Island with poor habitat conditions.

4. The industry reports that the 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 (weight for a given number of eels) of their catch. However, the industry is not confident that the voluntary agreement will continue to be effective in the medium to long term. There have been two anecdotal reports from industry representatives and Fishery Officers about isolated instances of non-compliance with the voluntary measure. However, it is not possible to accurately quantify the extent of this.

5. 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, Licenced Fish Receivers), will be entering the fishery in the future. It is the industry's view that ongoing compliance with the voluntary measure cannot necessarily be guaranteed in these circumstances.

6. 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 generated export revenue of approximately \$6 million. Each fisher operates between 20 and 60 fyke nets with at least two escape tubes each. There is effectively no commercial fishery in the Chatham Islands at present.

7. The North Island eel industry is represented by the Eel Enhancement Company (EECo), which proposed the change in the first place. EECo shareholders are mostly North Island eel quota owners. EECo is funded by a levy on quota. Although it does not directly represent the views of non-quota owning fishers, it does seek to consult with them and include their views on its

1. Fyke nets are the most common commercial fishing method used to catch eels. Commercial eel fishers are required, under the Fisheries (Commercial Fishing) Regulations 2001 ('the Commercial Regulations'), to have at least two escape tubes in their fyke nets (as shown in Figure 1) to allow for escapement of undersize eels (less than 220g). In the North and Chatham Islands, the escape tubes are required to have a minimum diameter of 25mm. This diameter is substantially smaller than that required for escape tubes in the South Island (31mm), even though the minimum weight limit for eels is the same.

2. In the past, North Island and South Island eel fisheries have been managed separately which resulted in various differences in rules. The

positions on various issues where appropriate. MPI understands EECO does not always make decisions by consensus.

Problem definition

8. The problem the proposal seeks to address is the current inconsistency between commercial eel size limits and minimum fyke net escape tubes sizes applicable in the South Island and in the North and Chatham Islands. A consequence of this inconsistency is a risk of future non-compliance with the use of 31mm fyke net escape tubes in the North and Chatham Islands commercial eel fisheries.

9. Because of the current inconsistency, industry in the North Island has voluntarily adopted the use of 31mm escape tubes. Although the industry is satisfied that at present the majority of eel fishers use 31mm escape tubes, except in poor habitat areas where 25mm escape tubes are used to fish for stunted shortfin eels, it is not confident of its ability to ensure voluntary adoption of this higher standard in the medium to long term, particularly with new entrants. Given increased demand and price for eels, it is reasonable to expect new entrants in the fishery (fishers, quota owners, Licensed Fish Receivers) in the medium to long-term. Use of escape tubes of less than 31mm may result in higher individual catches but a lower yield per recruit and, over time, it may undermine the achievement of management objectives.

Objectives

10. The goal of this review is to support the management objectives for freshwater eel fisheries specified in the National Plan for Freshwater Fisheries. Relevant objectives from the Plan are:

- to maintain adequate spawning biomass to provide for high levels of recruitment;
- to secure social, economic and cultural benefits from each stock; and
- to ensure there is an effective and consistent regulatory framework to support the management of eel fisheries.

Regulatory impact analysis

11. Table 1 below summarises the management options considered by MPI, and their costs and benefits.

Table 1 – management options, costs and benefits

Option 1 – Voluntary use of 31mm escape tubes <i>(status quo)</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 and Chatham Islands at 25mm and continuing to rely on current voluntary arrangements to ensure ongoing escapement of undersize eels.
Benefits: <ul style="list-style-type: none"> - Maintain high yield per recruit and high level of escapement, contributing directly to stock sustainability and use objective in all areas, subject to ongoing adherence with voluntary measure. - Maintaining high escapement would result in increased availability of eels for non-commercial users (i.e. customary fishers), contributing directly to use objective, subject to ongoing adherence with voluntary measure. - Flexibility to access stunted shortfin eel populations (maintaining at least \$80,000 in revenue per year for at least three individual commercial fishers) – see below – contributing directly to use objective. - No administrative and implementation costs involved in amending and enforcing regulations. Costs: <ul style="list-style-type: none"> - Ongoing unjustified discrepancy and inconsistency between size limits and minimum diameter of fyke net escape tubes applicable in different parts of the country. - Regulated requirement would generally continue to be ineffective in allowing escapement of undersize eels. Fyke nets fitted with 25mm escape tubes will hold eels as small as 180g. This will prevent achievement of governance objective. 	

- Compliance and achievement of objectives would continue to rely on strength's of industry's governance arrangements. Industry is not confident about ongoing effectiveness of this arrangements (e.g. with new entrants).
- If ongoing adherence to voluntary measure is not maintained, there would generally be a higher proportion of catch of undersize and smaller legal size eels and this would result in:
 - inefficiency as fishers would need to sort through catch thoroughly before landing;
 - risk of failing to comply with minimum size limit if catch sorting is not thorough,
 - inefficiency as smaller eels are generally worth less than larger eels²;
 - unnecessarily handling of undersize eels which may increase mortality;
 - lower yield per recruit (i.e. more individual eels required for a given amount of catch) which would impact on the amount of spawner escapement and future levels of recruitment; and
 - lower future availability of larger eels for other resource users (e.g. customary fishers).

Option 2 – Regulate use of 31mm escape tubes
(preferred option)

Amend the Fisheries (Commercial Fishing) Regulations 2001 to increase the minimum legal diameter for fyke net escape tubes in the North and Chatham Islands from 25mm to 31mm, aligning this with the requirement currently applicable in the South Island.

Benefits:

- National consistency between size limits and minimum diameter of fyke net escape tubes. Regulation would be effective at achieving its purpose, directly contributing to achievement of the governance objective.
- Maintain high yield per recruit and higher level of escapement, contributing directly to stock sustainability and use objectives in all areas except poor habitat areas with stunted shortfin eels, subject to compliance with the requirement and/or effective enforcement (as described above).
- Higher escapement may result in increased availability of eels for non-commercial users (i.e. customary fishers), contributing directly to use objective, subject to compliance with the requirement and/or effective enforcement (as described above).
- Marginal short term benefit as majority of North Island fishers (according to industry reports) are already using 31mm escape tubes voluntarily and there is effectively no commercial fishery in the Chatham Islands at present.
- Over the medium to long term, the proposal would strengthen industry practice, adherence would be a legal requirement, able to be monitored and enforced as part of existing compliance activities occurring in this fishery. Legal requirement would be more effective in allowing ongoing escapement of undersize eels.
- Sustainability and value benefits from the use of 31mm escape tubes maintained in the medium to long term:
 - higher yield per recruit (i.e. lower number of individual eels for a given amount of catch);
 - potentially lower mortality of undersize eels due to less handling required; and
 - increased future availability of larger eels for other resource users (e.g. customary fishers).

Costs:

- Inability to access stunted shortfin eel populations (at least \$80,000 per year in lost revenue for at least three individual commercial fishers) – see below – undermining use objective in some areas.
- For any commercial fishers that may be currently using escape tubes of less than 31mm (at least three), the cost of replacing tubes is \$5 per fyke net.
- Administrative and implementation cost of amending and enforcing regulations.

Lost access to stunted shortfin eels

12. A cost of Option 2 which was not identified prior to consultation and in initial discussions with iwi and stakeholders was preventing access to stunted shortfin eel populations. This would

² The landed price per kg 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.

impact on some commercial fishers who fish in small poor habitat areas (private waterways in Hawke's Bay and Northland) where there are populations of stunted shortfin eels. According to submitters, 31mm escape tubes would take shortfin eels from 430-440g in these waterways, preventing them from taking smaller legal-size eels.

13. At least three of the submitters' ability to take stunted shortfin eels from these areas would be compromised under Option 2. Although there may be other affected fishers who have not been identified, the consultation paper went to every commercial eel fisher in the country therefore MPI is confident there would not be many, if any, other commercial fishers in this situation. Information from these submitters indicates forgone catch of at least 13 tonnes per year and at least \$80,000 in lost revenue per year from these areas (note this is about 3% of the catch and revenue derived from the North Island eel fishery overall). It is unlikely that there would be an impact on the value and export revenue derived from the fishery as a whole given that some of the affected fishers operate in these areas on a rotational basis. All North Island shortfin eel TACCs (except in Taranaki) were fully caught in 2011/12 and MPI understands that at least some of the affected fishers did not operate in these areas during 2011/12. Consequently, it can be assumed that at least some fishing effort could be relocated to other areas (i.e. where there are no populations of stunted shortfin eels). Furthermore, as described above, a very marginal amount of the overall North Island catch comes from these areas.

14. The affected fishers that MPI has contacted either already operate in other areas part of the time or have indicated that they could relocate to other areas if allowed to shift stunted shortfin eels to areas with better habitat conditions, as described below. MPI does not have detailed information about the activities of one submitter, even though it has made several attempts to contact the fisher.

15. Furthermore, there are provisions under section 97 of the Fisheries Act 1996 to use fishing methods prohibited under the Commercial Regulations (e.g. like fyke nets with smaller than regulated or without escape tubes) and to take and possess undersize eels for the purpose of enhancing wild eel fisheries. This could involve fishers shifting stunted eels from these poor habitat areas to areas with better habitat conditions to improve growth. Presumably these fishers may no longer have exclusive access to some of their fishing grounds (i.e. in areas with better habitat conditions as these may no longer be in private land) but this may be a way of mitigating the costs of Option 2. The extent to which these costs could be mitigated has not yet been quantified but MPI expects to discuss this option with affected fishers shortly.

16. Maori and the industry already use these provisions to transfer elvers (juvenile eels) to areas with better habitat conditions so MPI expects this option to be a viable way of mitigating costs. Although there are biosecurity risks associated with moving fish between waterways, these are managed by MPI through permits and these can include conditions to mitigate for any biosecurity risks. The option would rely on availability of suitable habitat areas close to the poor habitat areas holding populations of stunted shortfin eels. An additional impact of this option is that commercial fishers would presumably lose exclusive access to their current poor habitat fishing grounds. Yet, relocation of stunted eels may also create opportunities to enhance non-commercial use of these fisheries. Although MPI has not yet looked into this in detail, it does not expect these issues to prevent successful relocation of stunted eels.

Consultation

17. MPI publicly consulted on this proposal through a consultation document between 11 March and 19 April 2013. MPI received 16 submissions which commented on the proposal, ten supported Option 2 and six supported Option 1. Additionally, MPI has been discussing this proposal in recent months with iwi³, industry and recreational fishing forums as part of the fisheries planning process. MPI has also discussed this proposal with the Department of Conservation (DOC).

³ Te Hiku o Te Ika (Northland), Te Waka a Maui (South Island), Te Taihauauru (Taranaki), Mgainga Kuri (Bay of Plenty) and Chatham Islands Fisheries Forum.

18. Ten submitters (iwi, DOC, industry representatives, recreational fishing representatives and individual commercial fishers) support Option 2, to increase the minimum legal diameter of fyke net escape tubes to 31mm, with reference to some of the benefits of this option summarised in Table 1.

19. Six submitters (three individual commercial fishers, one eel aquaculture promoter, the owner of one of the lakes holding stunted shortfin eels and a retired commercial eel fisher) support Option 1, with particular reference to the impact of Option 2 in preventing access to stunted shortfin eel populations, as summarised in Table 1, and preventing development of eel aquaculture.

20. The final proposal has not been amended as a result of these submissions, although they have provided more specific information about the costs of Option 2. As described above, MPI believes that the costs of Option 2 can be mitigated by fishers relocating to other areas and allowing commercial fishers to shift stunted shortfin eels to areas with better habitat conditions.

21. MPI does not consider the impact of the proposal on eel aquaculture development is a relevant consideration. An operational policy to manage access to wild stock for aquaculture development is currently being developed, independently from the Commercial Regulations. This proposal is aimed at the wild eel fishery, not at aquaculture. Aquaculture is not governed by Commercial Regulations therefore the proposed change would not constraint eel aquaculture development. Access to juvenile eels for aquaculture development is currently managed by a separate process (i.e. special permit) other than Commercial Regulations.

Conclusions and recommendations

22. Although the short term impact of the proposed change is expected to be marginal, in the medium to long term, the proposal is expected to result in ongoing effective escapement of undersize eels from commercial fyke nets in the North and Chatham Islands, contributing to management objectives:

- to maintain adequate spawning biomass to provide for high levels of recruitment;
- to secure social, economic and cultural benefits from each stock; and
- to ensure there is an effective and consistent regulatory framework to support the management of eel fisheries.

23. The current regulations are generally ineffective at achieving their purpose and are inconsistent with minimum eel size restrictions in different parts of the country. Although a voluntary arrangement is in place to address this, it is not believed to be robust enough to ensure this outcome in the medium to long term.

24. Public consultation has highlighted some potentially significant costs of the proposal on three individual commercial fishers. This information may be incomplete. Nonetheless, MPI believes these costs can be mitigated by fishers relocating their fishing effort to other areas and/or allowing for the transfer of stunted shortfin eels to areas with better habitat conditions; these costs are not believed to outweigh the benefits of the proposal.

25. Consequently, MPI's preferred option is still to recommend regulating the use of 31mm escape tubes in commercial fyke nets in the North and Chatham Islands.

Implementation

26. Any regulatory changes resulting from this proposal would need to be approved by Cabinet's Economic Growth and Infrastructure Committee on 10 July. Subsequent approval from Cabinet's Legislation Committee on 22 August and Order in Council are also required. Any changes are scheduled to come into force on 1 October 2013, the start of the next fishing year.

27. The Minister for Primary Industries has written to submitters, including commercial fishers who would be subject to the new requirement, informing them of his decision to recommend the proposed regulatory change. MPI would also inform all commercial eel fishers of the new requirement, should it be approved.

28. Fishery Officers would also remind commercial fishers of the new requirement, focussing initially on providing information. Over time, Fishery Officers would start checking adherence with the requirement and, where necessary, enforcing it, as part of existing activities occurring in the eel fishery (e.g. inspections of gear and fishing activities).

29. MPI would also discuss options to mitigate the costs of the preferred option with affected fishers. This would include facilitating the shifting of stunted eels from poor habitat areas to areas with better habitat conditions. Likewise, MPI will also inform relevant submitters of current work on development of eel aquaculture, which as described above, is not directly relevant to this proposal.

30. Current regulation 75, stipulating that fyke net escape tubes should be at least 25mm wide, which effectively applies only in the North and Chatham Islands, would be revoked. Regulation 52, which currently applies only in the South Island and stipulates that escape tubes should be at least 31mm wide, would be amended to apply throughout the country.

Monitoring, evaluation and review

31. Through the annual fisheries planning process⁴, MPI monitors and reviews the effectiveness of regulations in supporting management objectives. The performance of the fishery and of the regulation proposed in this paper would be monitored and reviewed in discussion with tangata whenua, the industry and other stakeholders as part of this process.

32. Compliance rates with the proposed increased minimum diameter would be monitored as part of existing compliance activities (e.g. inspection of fishing activities and catch) occurring within the fishery. These could be compared over time. Because monitoring would occur as part of existing compliance activities, no additional monitoring costs are expected.

⁴ MPI's fisheries planning process is the main mechanisms to guide and prioritise fisheries management interventions for deepwater, highly migratory species, inshore finfish, inshore shellfish and freshwater fisheries based on an objectives-based framework. The process is based on National Plans for each of the fishery groupings. The Plans define management objectives and performance measures. Each year an assessment of fishery performance against the management objectives, based on the performance measures, is carried out. Annual Operational Plans for each of the fishery groupings, specifying services and interventions, are developed to address identified gaps in performance or to enable identified opportunities. This is done in close discussion with tangata whenua, the fishing industry and other stakeholders. For more information please refer to the [MPI Fisheries website](#).