



Review of Management Controls for Ling 7 (LIN 7)

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INTRODUCTION

1 This Initial Position Paper provides the Ministry for Primary Industries (the Ministry's) initial proposals relating to catch limits and allowances for LIN 7, to apply from 1 October 2013.

2 The Ministry has developed this IPP for the purpose of consultation as required under the Fisheries Act 1996 (the Act). The proposals outlined in the paper are preliminary and are provided as the basis for consultation with stakeholders.

3 In August 2013, the Ministry will provide a Final Advice Paper to the Minister for Primary Industries. The FAP will summarise the Ministry's and stakeholder's views on the proposed deemed value rate changes and make recommendations to the Minister. A copy of the FAP and the Minister's letter setting out his final decisions will be posted on the MPI website as soon as these become available.

DEADLINE FOR SUBMISSIONS

4 The Ministry welcomes written submissions on the proposals contained in the IPP. All written submissions must be received by the Ministry no later than 5pm on **Friday, 9 August 2013**.

Written submissions should be sent directly to:

Deepwater Fisheries Management
Ministry for Primary Industries
P O Box 2526
Wellington 6011

or emailed to fmsubmissions@mpi.govt.nz

Official Information Act 1982

5 All submissions are subject to the Official Information Act and can be released (along with the personal details of the submitter) under the Act. If you have specific reasons for wanting to have your submission or personal details 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 Official Information Act.

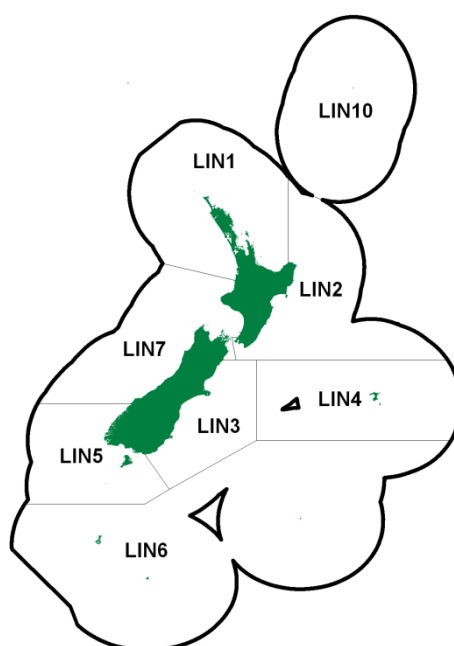


Figure 1: Quota Management Areas (QMAs) for Ling

EXECUTIVE SUMMARY

6 The Ministry for Primary Industries (MPI) is seeking tangata whenua and stakeholder information and views to inform a review of catch limits and other management measures for ling in Quota Management Area 7 (LIN 7) (Figure 1).

7 The 2013 stock assessment for LIN 7 estimated the stock status to be above the biomass that will produce the maximum sustainable yield (B_{MSY}) and above the default management target ($40\% B_0$). This estimate of stock biomass indicates that a higher TAC is likely to be sustainable.

8 Catches have regularly exceeded the catch limit by more than 10% in LIN 7 and are likely to increase further with potential TACC increases in hoki leading to increased activity in the fishery.

9 In response, MPI proposes the following options for the total allowable catch (TAC), total allowable commercial catch (TACC) and associated allowances (Table 1):

Table 1: Proposed TACs, TACCs and allowances for LIN 7

Option	Allowances				Other sources of fishing related mortality (t)
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	
Option 1 (Status Quo)	2,501	2,474	1	1	25
Option 2	3,144	3,080	1	1	62

10 Option two sets a TACC based on the highest catch of the last five years plus an additional 10% increase to allow for increased catches taken as a bycatch in the west coast

South Island hoki fishery. This option also includes an increased allowance for other sources of fishing-related mortality to take into account potential unreported ling catches.

CONTEXT

11 The TACC for LIN 7 has been exceeded by more than 10% in the previous two years, with catches in 2012/13 expected to be at a similar level and to increase again in 2013/14, especially if the TAC for HOK1 is increased as proposed. Although catches have historically been above the TACC, the stock assessment indicates that the stock has never been heavily fished suggesting that the TAC is conservative.

12 The 2013 stock assessment model for LIN 7 is somewhat uncertain, but the Deepwater Fisheries Assessment Working Group concluded that it is very likely that the stock is above the default management target of 40% B_0 at around 71% B_0 and has likely been only lightly fished. This indicates a utilisation opportunity is available and that the stock can support an increase in the TAC in line with current and increasing catches.

Biological Characteristics of ling

13 Ling is a moderately productive species found throughout New Zealand waters, at depths between 200 and 800 metres. Ling are thought to reach a maximum age of around 30 years old.

14 There are at least five discrete biological ling stocks in New Zealand. Growth rates have been found to vary between these stocks although any movement of fish between stocks is unknown.

15 LIN 7 includes the west coast South Island biological stock and a small proportion of the Cook Strait stock in Statistical Area 17.

LIN 7 Fishery

16 New Zealand's ling fisheries have been managed within the quota management system (QMS) since 1986. There are eight quota management areas (QMAs) for ling (Figure 1).

17 The main fishing area for LIN 7 is off the west coast of the South Island (WCSI), where 98% of the LIN 7 catch is taken. This catch is mostly taken in two main fisheries, the first as a bycatch in the WCSI hoki target fishery, and the second by vessels smaller than 28 metres targeting ling using both trawl and longline fishing methods.

18 The catch from smaller vessels has gradually increased since the early 2000s making up nearly 50% of total catch in 2011/12. The catch from hoki target fishing has varied over time in relation to the hoki TACC and hoki catch from the WCSI fishery.

19 Hoki TACCs were highest from 1994–2001, the period where LIN 7 captures regularly exceeded the TACC and reached 3300 tonnes. The hoki TAC was lowered in 2001 and LIN 7 catches decreased as a result. Hoki TACCs have been increasing since 2009 and as

a result, LIN 7 catches from hoki target fishing have also increased. There is another increase to the hoki TAC proposed for this year which would likely to increase LIN 7 catches again.

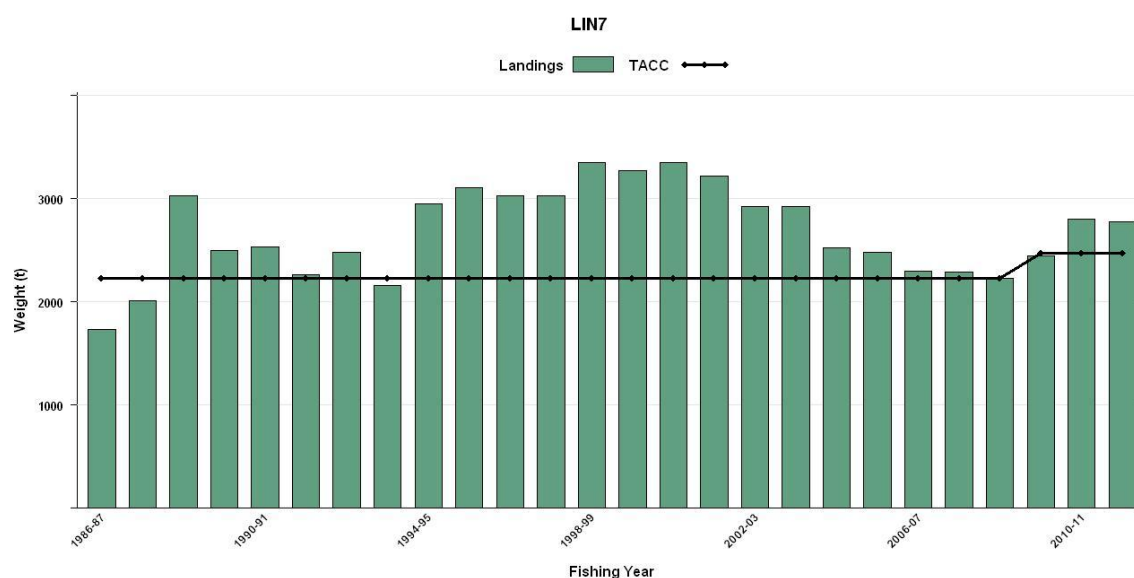


Figure 2: Reported Landings and TACC (t) for LIN 7 from 1986/87 to the 2011/12 fishing year

Recreational and Customary

20 There has previously been a nominal recreational allowance of one tonne set for LIN 7. As the majority of the fishery operates at depths of 200-800m in depth, there is nothing to suggest that there is any more than a nominal amount of recreational catch. It is proposed that the LIN 7 recreational allowance be retained at one tonne for both options. MPI aware of any restrictions under s 311 that have been placed on fishing in any area within the LIN 7 QMA.

21 As described above, LIN 7 is primarily a commercial fishery that operates offshore. There are no reported customary authorisations for LIN 7 at this time. There are no mataitai reserves or closures/restrictions under s 186A that impact ling fishing in LIN 7. Consequently, MPI is proposing to retain the one tonne customary allowance under both options.

Other Sources of Fishing Related Mortality

22 MPI proposes an increased allowance for other sources of fishing-related mortality of 2% of the TACC. This allowance is required to take account of ling mortality that is not reported such as ling lost due to burst nets, broken hooks, ling that are damaged by fishing activity but not caught, or fish that have been discarded at sea and not reported.

23 Historically, the allowance for other sources of fishing-related mortality in LIN 7 has been set at 1% of the TACC. However, potential drivers for non-reporting of catches have been identified and it is considered that the TAC should include an increased allowance that addresses this issue.

24 Such drivers include a lack of available ACE, difficulties and time required for the processing of large ling, and the ramped deemed values that can make it uneconomical to land the fish. Some of these drivers may be removed by an increase to the TACC, however the

processing difficulties remain and as a result, MPI proposes increasing the allowance from 1% to 2% of the TACC to allow for any potential misreporting of catch.

Previous Review

25 Prior to 2013, the LIN 7 stock assessment was last updated in 2008 and estimated that the biomass was about 69% B_0 . The model estimate was uncertain as it was adjudged that there was no reliable abundance series for the assessment.

26 The most recent review of the management settings for LIN 7 took place in 2009, when the TACC was increased from 2225 tonnes to 2474 tonnes and a TAC of 2501 tonnes was established. The amendment to the TACC was intended to address the regular catch above the TACC in the stock. The increase was based on the average catch of the previous five years; an increase of 12%.

Stock Assessment

27 The stock assessment for LIN 7 was updated in 2013. The assessment model uses data inputs including a standardised catch-per-unit-effort from commercial trawl fisheries, abundance estimates from two research trawl surveys in 2000 and 2012, and catch-at-age information from the research surveys and commercial trawl and longline fisheries.

28 The model estimated LIN 7 to be at 71% B_0 . However, the model is very uncertain with regards to estimates of B_0 or absolute biomass. There is insufficient information to allow the model to accurately scale the B_0 or B_{current} estimates. This means that while the Working Group believes that it is very likely that the stock is above the management target and lightly fished, the model does not provide information as to the actual amount of ling in LIN 7.

Management Approach

29 Ling stocks 3-7 are managed through the National Fisheries Plan for Deepwater and Middle-depth Fisheries (National Deepwater Plan). The species-specific chapter of Part II of the National Deepwater Plan for ling was completed in 2012. This chapter uses default management targets and limits for ling stocks as follows and the options presented in this paper are consistent with that harvest strategy.

Table 2: Default harvest strategy from the Harvest Strategy Standard

Reference point	Management response
Management target of 40% B_0	The stock is permitted to fluctuate around this management target. TAC/TACC changes will be employed to move stock toward or above target.
Soft limit of 20% B_0	A formal, time-constrained rebuilding plan will be implemented if this limit is reached.
Hard limit of 10% B_0	The limit below which a fishery will be considered for closure.

PROPOSED RESPONSE

30 MPI is consulting on the following management options for setting TACs, TACCs and allowances for LIN 7 (Table 3):

Table 3: Proposed TACs, TACCs, and allowances for LIN 7

Option	Allowances				Other sources of fishing related mortality (t)
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	
Option 1 (Status Quo)	2,501	2,474	1	1	25
Option 2 (MPI preferred option)	3,144	3,080	1	1	62

31 The best available information to inform setting the TAC for LIN 7 is the 2013 stock assessment and the catch history for the stock.

32 MPI considers both options proposed are consistent with the objective of maintaining the LIN 7 stock at or above the level that can produce the maximum sustainable yield.

Option 1 (Status Quo)

33 Under this option, the TAC would remain at 2,501 tonnes and the TACC would remain at 2,474 tonnes.

34 With the status of the stock estimated to be capable of supporting a higher TACC, the status quo would result in lost opportunities for utilisation.

Option 2

35 Option 2 proposes:

- The TAC be increased from 2501 tonnes to 3144 tonnes (an increase of approximately 26%).
- The TACC be increased from 2474 tonnes to 3080 tonnes (an increase of approximately 24%).
- The allowance for other sources of fishing related mortality be increased from 25 tonnes to 62 tonnes (increasing from 1% TACC to 2% of the TACC).
- No changes to customary or recreational allowances.

36 This option increases the TACC to the level of the highest catch in the last five years (2800 tonnes) and includes a further 10% to allow for increased LIN 7 catches as a result of proposed increases to the hoki TACC.

37 Based on export figures from 2012 of \$3.69/kg greenweight, the TACC increase of 606 tonnes would result in an additional \$2.24m in revenue.¹

Other Key Considerations

38 When making a decision concerning the TAC for a stock, the Minister for Primary Industries² (the Minister) must have regard to interdependence of stocks, the biological

¹ Based on export figures for 2012 calendar year of \$3.69 / kg greenweight. This uses frozen fillets (TSK) to estimate the greenweight export price as this form accounted for 63.1% of export earnings and 50.3% of export volume for ling in the 2012 calendar year. Precise revenue loss is difficult to estimate and will be influenced by factors such as commodity prices, exchange rate, catching costs and export state

² The Minister for Primary Industries now exercises the powers and responsibilities of the Minister of Fisheries under the Fisheries Act 1996.

characteristics (discussed above) and any environmental conditions affecting the stock. Key environmental issues associated with the LIN 7 fishery, and how they will be affected by the proposal to increase the TACC, are discussed below.

Interdependence of stocks

39 The main species that have been observed caught in association with ling on the west coast of the South Island are hoki, javelinfish and silver warehou. Observations have mainly been from larger trawl vessels. Bottom longline fisheries for ling have very low levels of bycatch, which include mainly QMS species such as stargazer, gemfish and spiny dogfish. There are not currently any sustainability concerns for any of these stocks and the hoki TACC is being considered for an increase.

40 The LIN 7 TACC also covers a small portion of the Cook Strait biological ling stock. The Cook Strait ling biological stock was assessed in 2013 but the assessment was not accepted by the working group as a reliable assessment of stock status. The previous assessment for the Cook Strait biological ling stock indicated it was likely to be at or above the default management target of 40% B_0 at around 54% B_0 . Less than 2% of the total LIN 7 catches come from the Cook Strait biological stock, and the biological stock is scheduled for assessment again in 2016.

41 MPI is satisfied that any increase to the LIN 7 TACC is unlikely to have an unacceptable impact on the sustainability of the key species that are caught in conjunction with ling. However, bycatch levels in the fishery will continue to be monitored.

Protected species interactions

42 The fishing methods used in ling fishing have different environmental effects. Trawl fisheries interact with seabirds and some marine mammals, and those that fish on the bottom also interact with the seabed and the associated benthic environment. Longline fisheries interact with seabirds and also with the seabed and associated benthic environment however less so than trawl gear.

Seabirds

43 A National Plan of Action –Seabirds has recently been approved by Ministers and guides management of seabird interactions in New Zealand fisheries. This management is based on a risk assessment that identifies at-risk seabird species.

44 Mandatory measures include the requirement that all trawlers larger than 28 m overall length and bottom longline vessels larger than 7 m overall length deploy bird mitigation devices when fishing gear is in use. Non-regulatory measures include vessel-specific measures, known as vessel management plans (VMPs), which set out the additional measures vessels must follow to avoid seabird interactions including offal management. MPI has processes in place to monitor and audit performance against these measures.

45 In the 2010/11 fishing year, there were five observed captures of birds in trawl fisheries in the west coast South Island area. None of these were from ling target fishing. An increase to the LIN 7 TACC may increase the risk of interactions with seabirds, however, MPI is satisfied that existing regulatory and non-regulatory measures to reduce incidental interactions with seabirds will ensure that any possible increase in fishing effort does not have an adverse effect on seabird populations.

Marine mammals

46 No marine mammals have been reported as incidental bycatch in any ling longline fishery in the last five years. Estimated captures of fur seals from all ling trawl fisheries were 26 in 2009/10 and 19 in 2010/11. None of the reported captures on which these estimates are based came from the LIN 7 fishery.

Benthic impacts

47 Although ling is a mid-water species, it is often caught by bottom trawl or midwater trawl fished on or near the bottom which can have an impact on the benthic habitat. Nearly 50% of the catch in LIN 7 is taken by bottom longlines which contact with the seabed, but are likely to have minimal impacts on the habitat.

48 In recent years, management measures to address the effects of deepwater trawl activity have focused on 'avoiding' these effects. This has been achieved through closing areas to bottom trawling; first with seamount closures in 2001 and then with Benthic Protection Areas (BPAs). The implementation of BPAs in 2007 effectively closed approximately 30% of the New Zealand EEZ to bottom trawling. It also implemented a monitoring regime to ensure these closures are adhered to.

49 The proposals to increase the TAC for LIN 7 will result in an increase in fishing effort. The majority of the increase is likely to be taken by vessels targeting hoki using mid-water trawl gear. Any increase directly due to the LIN 7 TAC increase is likely to be in the smaller vessels which predominantly use bottom longline gear.

50 The trawl footprint of both the ling and hoki west coast South Island fisheries will continue to be mapped and monitored annually.

Other Management Measures

51 MPI is not proposing to make any changes to the deemed values for LIN 7, or any other management measures.

Future Considerations

52 Catches in LIN 7 will be monitored annually and management measures will be reviewed if necessary.

53 The next stock assessment for LIN 7 is scheduled for 2016 and will include updated data from commercial fisheries as well as any relevant additional research. The TACC will be reviewed again if necessary following any updated stock assessment.

CONCLUSION

54 MPI is comfortable that a utilisation opportunity exists in the LIN 7 fishery. Estimates of current stock status from the 2013 assessment model indicate that the stock is above the default management target of 40% B_0 and a catch increase could be sustained. MPI is therefore proposing a TAC increase of around 26% with the potential to increase revenue from this fishery by \$2.24 m.