Regulatory Impact Statement: Wider Rollout of On-board Cameras

UPDATED with Supplementary Addendum: Scope of the rollout

Purpose of Document	
Decision sought:	This analysis has been prepared for the purpose of supporting Cabinet decisions on which vessels are required to use cameras.
Advising agencies:	Fisheries New Zealand, Ministry for Primary Industries
Proposing Ministers:	Minister for Oceans and Fisheries
Date finalised:	5th September 2024

Executive Summary

Without independent verification, there is some uncertainty in the catch data provided by some commercial fishers. This uncertainty can limit the use of agile fisheries management tools and can result in more conservative management decisions. Furthermore, the use of on-board cameras is a proven way to increase verification levels on smaller, inshore vessels.

In 2022, Cabinet made the decision to rollout cameras across the commercial inshore fishing fleet. Since this time cameras have been installed on 155 vessels with early insights indicating that cameras are improving the accuracy of fisher reported data on these vessels.

Under current regulations, cameras are due to be installed on an additional 73 vessels by the time the rollout is complete in February 2025. The deployment schedule contained within the current regulations prioritised rollout on the basis of risk posed to at-risk protected species. As a result, those vessels due to receive cameras in the next six months operate in fisheries with lower risk to protected species when compared to the vessels currently operating cameras.

This document is an addendum to the substantive Regulatory Impact Statement (RIS) for on-board cameras and analyses whether the rollout should continue as currently prescribed in regulation or be halted. Those vessels currently operating cameras will continue to do so when fishing in areas that are subject to the current regulations.

The Ministry's preferred option is to continue with the rollout. This is because doing so would result in a greater proportion of the catch being verified leading to better data and improved management across a wider suite of fisheries.

However, if the total costs of the programme are weighted more highly then halting the rollout of cameras may be preferred. The Minister for Oceans and Fisheries has requested additional work on costs and privacy controls associated with cameras before deciding on further rollout.

Limitations and Constraints on Analysis

There are limitations and constraints to this analysis.

The next regulated date for the rollout is 3 December 2024. After this date, approximately 44 additional vessels would require cameras to legally fish. The need for policy decisions ahead of 3 December has constrained the timeframe available for this analysis, and for consultation on the proposal presented.

The Minster has asked officials to provide advice on halting the rollout. This has constrained the analysis within this RIS addendum, and alternative options have not been considered.

It is also important to note that given this analysis is an addendum to the substantive RIS published in March 2022, it does not duplicate matters covered in that analysis. No supplementary consultation has been undertaken on this addendum.

It is acknowledged that the policy of onboard cameras has associated privacy implications. This addendum does not canvas those privacy implications, as the substantive RIS covered that matter in all material respects and there are no further privacy impacts arising from this supplementary analysis.

Responsible Manager(s)

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Fisheries New Zealand

Ministry for Primary Industries

5th September 2024

Quality Assurance (completed by QA panel)

Reviewing Agency:	Ministry for Primary Industries (MPI)
Panel Assessment & Comment:	The MPI Regulatory Impact Analysis Panel has reviewed the Regulatory Impact Assessment "*Wider Rollout of On-board Cameras*" produced by Fisheries New Zealand: MPI and dated September 2024. The review team considers that it **partially meets** the Quality Assurance criteria. The Panel found that the time constraints have limited the gathering of evidence to support analysis, impacting the ability of the RIS to meet the 'convincing' QA criteria.

Section 1: Background

What is the context behind the policy problem

1. All commercial fishers are required to report information on what they catch whilst at-sea (including any incidental captures of protected species such as seabirds or marine mammals). This information is an input into scientific analyses and management decisions regarding catch limits and protected species interactions

2. As noted in the substantive RIS, uncertainty in the quality of information provided by fishers impacts management decisions and can result in more conservative decisions.

3. Both international and domestic experience have shown that independent monitoring and verification increases the reliability of fisher-reported data.

4. The need for better data is most pressing on those inshore vessels which have the greatest impact on protected species bycatch and the capture of higher amounts of unwanted fish and where placing observers can be challenging (i.e. inshore vessels using the methods of trawling, seining, set netting or longlining). Other sectors of the commercial fishing fleet are either subject to high levels of monitoring at present (e.g. the deepwater trawl fleet where observer coverage averages above 40%) or have less of an environmental impact due to the use of more selective fishing methods (i.e. the targeting of one fish species with little to no bycatch e.g. potting).

5. On-board cameras are a proven way to achieve the necessary levels of verification as the alternative option of at-sea observers is often neither practicable nor cost-effective (see the substantive RIS for more detail).

6. The rollout of on-board cameras increases confidence in fisher-reported data, thereby strengthening the fisheries regime by providing an improved basis for decision making.

Decisions on the rollout of cameras

7. In 2022, Cabinet agreed to the rollout of on-board cameras across all inshore trawl,[1] coastal set net,[2] longline and seine vessels. Collectively, these vessels are responsible for approx. 85% of the total catch from inshore fisheries. Cabinet also decided that cameras would be deployed incrementally, with those vessels posing the greatest risk to at-risk protected species prioritised.

8. To give effect to these changes, amendments were made to the Fisheries (Electronic Monitoring on Vessels) Regulations 2017 (the Regulations) setting out the types of vessels that would be required to use cameras (the scope of the rollout), and the dates from which these vessels are required to use cameras.

[1] Trawl vessels 32 metres or less in length excluding those targeting scampi

[2] Set net vessels 8 metres or greater in length.

The rollout to date

9. Since the wider rollout began in mid-2023, the number of vessels operating cameras has progressively increased. As of August 2024, cameras are installed on 155 vessels, with the rollout covering those fleets that pose the greatest fisheries risk to threatened protected species such as Hector's and Māui dolphin, hoiho, and Antipodean albatross.

10. The regulations currently require cameras to be used on:
    - inshore trawl and coastal set net vessels fishing the West Coast of the North Island or the North, East or South Coasts of the South Island;
    - bottom longline vessels fishing in northern waters; and
    - all surface longline vessels.

11. There are two remaining rollout dates under the regulations – as set out in Table 1. This would see cameras installed on around 73 additional vessels by February 2025. Vessels subject to the remaining rollout primarily pose lower risks to those protected species noted above due to the fishing methods used and areas fished.[3] For example, hoiho and Māui dolphin are not found in those geographical areas covered by the remaining rollout, and methods such as seining are not considered to pose a significant risk to seabirds such as Antipodean albatross.

Table one: Vessels currently in-scope for on-board cameras

Fishery	Timing	Vessels	Cumulative vessels	% of inshore catch monitored (cumulative)
West Coast North Island inshore trawl and set net	Completed August 2023	33	33	8%
North, East & South Coast South Island trawl and set net	Completed October 2023	65	98	25%
All surface longline	Completed January 2024	26	124	25%
Northern bottom longline	Completed July 2024	31	155	30%
Remaining rollout per current regulations				
All remaining trawl and bottom longline	3 December 2024	44	199	60%

[3] For more information see the 2023 Seabird Risk Assessment, the NPOA–Seabirds Annual Report and the Spatial risk assessment of threats to Hector's and Māui dolphins.

All remaining set net and all Purse seine and Danish seine	28 February 2025	29	228	85%

12. Early insights suggest that cameras are improving the quality of information provided by fishers about catch. Since the rollout commenced, changes in the reporting of protected species interactions and the volume of fish being legally returned to the sea have been observed. This is coupled with high rates of compliance with reporting regulations.[4] This information validates the assumption in the substantial RIS that cameras will improve fisher reporting and increase confidence in the use of fisher-reported data.

Section 2: What is the policy problem or opportunity?

13. Assessing the key policy question of the scope of the rollout (i.e. which vessels are required to operate cameras) is a matter of balancing the benefits obtained from implementing cameras in a fishery against the costs associated with implementing cameras in that fishery.

Benefit differential

14. The number of vessels equipped with cameras is the principal driver of rollout costs (i.e. the more vessels with cameras then the bigger the privacy impact and the higher the costs for hardware, installation, footage transmission, storage, and review etc).

15. The continuation of the rollout would result in cameras being installed on an additional 73 vessels. It would see some of those vessels currently equipped with cameras using those cameras in additional areas and when using additional fishing methods should they choose to shift effort or change method.

16. The importance of verifying fisher-reported data differs between fisheries due to a variety of factors. These include, amongst others:
    - the sustainability of the fish stock;
    - the level of interaction with protected species such as seabirds and marine mammals, and the conservation status of the species in question;
    - the selectivity of the fishing method, that is the extent to which the fisher can control the desired species and/or size-class of fish which are harvested; and
    - the importance of the stock to commercial, recreational and customary fishers.

17. With respect to managing interactions with protected species, the availability of high quality, verified data to inform management is of greatest importance in those fisheries which pose the greatest risk to at-risk protected species. Cameras are already in use in these fisheries.

[4] Since August 2023, 98% of protected species capture events detected by Fisheries New Zealand Video Analysts were also reported by the fisher.

18. Those additional fisheries which would be monitored using cameras as a result of the continuation of the rollout pose less of a risk to at-risk protected species. Therefore, from a protected species perspective, the marginal benefits obtained from expanding the rollout are lower.[5]

19. The situation with respect to fish stocks is more complex. Significant volumes of catch from stocks of importance to commercial, recreational and customary fishers are taken both in those fisheries where cameras are currently operating, and in those fisheries where cameras are scheduled to become a requirement. For example, fisheries where cameras are not yet operating are responsible for over half of the commercial catch of SNA1[6] (New Zealand's most important inshore finfish stock).

20. Verifying fish catch is of most importance in those stocks where there is a sustainability concern. This is because it is important to have accurate information on the catches of these stocks to ensure that catch limits can be set at an appropriate level. Fisheries where cameras are not yet operating are responsible for significant portions of the commercial catch of some stocks of sustainability catch, for example bluenose and east coast tarakihi.

21. Because of this, it is not possible to compare the benefits that would be obtained from continuing the rollout with those being realised at present.

22. Furthermore, in some cases, changes to the wider fisheries regulatory framework may be required to enable the benefits of verified fisheries data to be fully realised for fisheries management purposes.

Section 2: Deciding upon an option to address the policy problem

What criteria will be used to compare options to the status quo?

23. The criteria to be applied are the same as those used in the substantive RIS.

Improving information available to inform management - the extent to which the option improves the quality of information available to inform management.

Improving at-sea fisher behaviour – the extent to which the option results in positive behaviour change such as more accurate reporting and greater use of measures to reduce the risk to protected species.

Efficiency of solution – the viability and efficacy of using camera technology to collect the necessary data required to enable verification of fishing activity.

Cost effectiveness – the ongoing operational costs associated with the rollout.

[5] As noted above fisheries covered by the remaining rollout pose less of a risk to at-risk protected species such as Hector's and Māui dolphin, hoiho, and Antipodean albatross.

[6] The SNA1 stock covers the waters of eastern Northland, the Hauraki Gulf and the Bay of Plenty.

What scope will options be considered within?

24. No consideration is being given to removing the requirement for vessels already required to operate cameras when fishing in areas subject to the current regulations.

Options

25. Due to the need for policy decisions ahead of the next regulated rollout date for cameras (3 December 2024), this RIS addendum only analyses a single option (halting the rollout). The Status Quo for assessing this option will be the rollout as currently set out within regulation.

Option One – Status Quo

26. The Status Quo (Option Two in the substantive RIS) would see the rollout continue as currently prescribed in the regulations. Under this option, cameras are anticipated to be installed on a further 73 vessels by February 2025, with the requirement to utilise cameras expanding to cover inshore trawl, coastal set net and bottom longline vessels fishing in any area, and all Danish seine and purse seine vessels.

27. This option would see cameras installed on those inshore vessels which contribute the majority of the fisheries risk to protected species and which are responsible for approximately 85% of the catch (by volume) from inshore fisheries. As such this option would improve the information available to inform the management of inshore fish stocks and interactions between inshore vessels and protected species.

28. The operating costs of the Status Quo are estimated at approximately $10m per annum between 2025/26 and 2028/29. A portion of these costs are recoverable from the fishing industry although exact costs remain subject to change.

Option Two – Halt

29. This option would see the rollout halted. Under this option, camera use would not be required on Danish seine or purse seine vessels, with camera use on bottom longline, coastal set net and inshore trawl vessels restricted to those areas currently required under the regulations.[7]

30. Under the halt option, cameras would remain a requirement in those fisheries which pose the greatest fisheries risk to threatened protected species such as hoiho, Antipodean albatross and Hector's and Māui dolphin. Fisheries where camera use would no longer be a requirement under this option do not pose a material risk to these protected species. While Option Two would reduce the quality of information available to inform management of protected species compared to the Status Quo, it would ensure that high quality, verified information is available where most required to manage interactions between inshore vessels and protected species.

31. This option would result in the verification of lower amounts of catch (30% of the catch from inshore fisheries compared with 85% under the Status Quo). Therefore, Option

[7] That is Northern New Zealand (FMA1) for bottom longline vessels and the West Coast North Island and North, South and East Coasts of the South Island for coastal set net and inshore trawl vessels.

Two would reduce the quality of information available to inform management of fish stocks when compared to the status quo.

32. The operating costs of Option Two are estimated at approximately $8.2m per annum between 2025/26 and 2028/29. A portion of these costs are recoverable from the fishing industry although the exact costs remain subject to change.

33. s9(2)(i)

34. Option Two in this RIS Addendum is similar to Option Three in the substantive RIS with regard to vessel numbers. Cameras would be placed on a similar number of vessels (around 155) however the fleets covered under each option differ slightly. Under this option, camera use is prioritised based on risk (principally to at-risk protected species) whereas the comparable option of the substantive RIS prioritises those vessels which use 'serial' fishing methods (i.e. longline and set net).[8]

[8] Serial fisheries are those where fish are brought on-board one at a time (e.g. longline or set net). This compares with batch fisheries where fish are brought on-board all at once (e.g. trawl or seine)

How do the options compare to the Status Quo?

	Option One – *Status Quo* *Cameras on approx. 228 vessels*	Option Two – *Halt* *Cameras on approx. 155 vessels*
Improving information available to inform management	0	- The extent to which information would be reduced for this option because Danish seine and purse seine fisheries, and significant portions of inshore trawl, coastal set net and bottom longline fisheries would not be verified under this option.
Improving at-sea fisher behaviour	0	- The environmental and fisheries management outcomes achieved because of improved behaviour change would be less under this option due to lower levels of verification.
Efficiency of solution	0	0 Both experience to date, and camera programmes internationally have shown that on-board cameras can operate effectively on vessels using these fishing methods.
Cost efficiency	0	+ Estimated operating costs of around $8.2m per annum between 2025/26 and 2028/29 compared with around $10m per annum for the Status Quo. However, this would be offset by the costs of varying the contract.
Overall assessment		- The benefits delivered by this option would be less due the lower levels of verification. However, the reduction in the number of vessels operating cameras would also result in lower operating costs.

Key:

+ better than the status quo **-** worse than the status quo **0** about the same as the status quo

What option is likely to best address the problem, meet the policy objectives, and deliver the highest net benefits?

35. Completing the rollout would see the majority (85%) of the inshore catch verified through cameras whereas halting the rollout would see significantly less of the catch being verified, including large portions of stocks of significance such as snapper and tarakihi. This would impact upon the confidence in fisher reported data with some flow-on impacts on management decisions and environmental and economic outcomes from New Zealand

36. If total cost of the cameras programme is weighted more highly, then Option Two would be preferred. This option would not see cameras installed on as many vessels meaning costs would be lower. It is important to note that under this option cameras would continue to be used on a significant portion of the fleet (155 vessels), including those vessels that pose the greatest risk to at-risk protected species. This represents a significant increase in the level of verification when compared to the status quo before the rollout commenced and, as such, the original policy problem for cameras of improving the data available for management would still be addressed to a large degree.

Section 3: Delivering an option

37. If a decision is made to continue with the rollout, then no regulatory changes are required. Fisheries New Zealand will work with its technology provider for cameras to install cameras on remaining vessels.

38. If a decision is made to halt the rollout, this would be given effect through an amendment to the regulations removing the go-live dates for the remaining rollouts. This would be followed by a review of the regulations to ensure that the benefits of installing cameras on additional vessels outweighs the costs.

39. Regardless of the decision, Fisheries New Zealand will continue to progress operational changes to better leverage the enhanced verification provided by cameras and implement technical changes (including the greater use of AI) to the camera solution to reduce costs and increase the benefits derived from the rollout.