



TERMS OF REFERENCE FOR

On-Board Cameras

Technical Working Group

Ministry for Primary Industries

June 2020



Terms of reference for Technical Working Group on On-board Cameras

1 Background

- 1.1 Fisheries New Zealand's on-board camera initiative is a key element in its digital monitoring programme to improve the quality of, and ability to verify, information collected on commercial fishing activities. Collecting and using footage from on-board cameras will play a key role in the electronic monitoring of commercial fisheries to improve both transparency and Fisheries New Zealand's capacity to verify fisher reported catch information.¹ It will also provide important additional data and information to support the management and research of and for New Zealand fisheries.
- 1.2 Industry-led electronic monitoring trials and proofs of concept have been implemented in different New Zealand fisheries and further industry-led proofs of concept are currently being planned.
- 1.3 New Zealand regulations for on-board cameras on commercial fishing vessels came into effect in 2018. Currently, the regulations apply to selected vessels from 1 November 2019 set netting or trawling in a defined area on the west coast of the North Island. This group of regulated vessels is known as "On-board Cameras - Stage 1".
- 1.4 Since then, Fisheries New Zealand has been developing the systems and processes to support this, and has placed cameras on some fishing vessels.
- 1.5 Verification and monitoring of certain fisheries will have a higher priority than for others. On-board Cameras – Stage 1 prioritises commercial fishing vessels using methods that pose a greater risk to Māui dolphin, trawl and set net, which operate in high risk areas.
- 1.6 During the October 2019 Sustainability Round, Minister Nash agreed to the implementation of the Eastern Tarakihi Management Strategy and Rebuild Plan (The Industry Rebuild Plan) and secured an in-principle agreement from Industry for use of on board cameras for monitoring and verification purposes associated with the rebuild of East Coast Tarakihi stock (TAR 2 & TAR 3).
- 1.7 Fisheries Inshore New Zealand (FINZ) has been progressing discussions with delivery partners for on-board cameras in the East Coast Tarakihi fishery. This has included engagement with The Nature Conservancy and independent third parties around storage and review of footage. Further lessons learned activity will be captured from other trials both form within NZ and other jurisdictions
- 1.8 Currently, a holding date of 1 October 2021 has been set before the on-board camera regulations apply to other commercial fishing vessels.

¹ "Footage" is defined as the raw video footage or still images collected from cameras deployed onboard vessels.
"Data" is defined as the raw information generated from review of the video footage.



2 Context and Objective

- 2.1 The Minister of Fisheries has asked for a Technical Working Group on On-Board Cameras (the Working group) to be established, involving Fisheries New Zealand, representation from the commercial seafood industry, and The Nature Conservancy be established.
- 2.2 The Working Group is required to provide advice (to the Deputy Director-General Fisheries New Zealand) on the fisheries management objectives, stratified by fishery, and the technical specifications for future stages of on-board camera rollouts, e.g. placement, activity captured, equipment and compliance considerations for various types of vessels/methods/fisheries, building on the On-board Cameras - Stage 1 and other trials being undertaken by industry groups, MPI and/or other agencies/ENGO's.
- 2.3 It is intended that the technical advice will be tailored to meet a series of targeted fisheries management objectives (preliminary assessment provided under separate cover) that may be achievable through on-board cameras across New Zealand's fisheries. The Working Group will identify and assess the data and technical matters necessary to establish and operate an effective on-board cameras programme, noting that solution(s) may well be stratified depending on objectives, fishery type and risk. Further noting that cameras could be an alternative to observers, in some circumstances.
- 2.4 Fisheries New Zealand has carried out an assessment of fisheries by management objective. This assessment is known as the Preliminary Assessment of Objectives and Information Needs (*Preliminary Assessment*) and lists fisheries by what we have judged to be the highest to the lowest risk², or where high priority management objectives are evident. The assessment also indicates a potential cut off point, below which the benefits of cameras, in current state of development, may not exceed the costs, and so they may not be required³.

3 Scope

- 3.1 The work of the Working Group falls into three key phases, each to identify and define:
 - a. The fisheries management objectives for the placement of on-board cameras, as stratified by fishery or fishery groups (Phase 1);
 - b. The data requirements (Phase 2):
 - i Based on an agreed Preliminary Assessment, group appropriate fisheries and/or main methods of fishing where

² Risk is described as "lists fisheries by the risk they pose to sustainability and compliance and the benefits of using cameras to manage those risks – taking into consideration the fishery specific objectives and what tools are likely to be most effective to meet those objectives"

³ It should be noted the cost-benefit cut-off point will change over time as the benefits of using cameras to achieve an objective in a fishery change (e.g., the status of a protected species becomes more or less critical) or the costs change (e.g., technology developments such as artificial intelligence/machine learning reduce the costs of data transmission and analysis).



information required, and therefore likely camera solutions, are likely to be similar

- ii define what footage is required to be collected and reviewed relative to each fisheries/methods grouping and agreed management objective(s).
- c. The technical and operational specification (Phase 3) – Note additional technical expertise may be asked to join the working group for this phase:
 - i define technical specifications for on-board cameras for each of the exemplar fisheries/methods determined at b) above, and
 - ii define end-to-end processes requirements for each exemplar fishery/method.

The Working Group will not be constrained by the current legislation (i.e. the camera placement provisions) and will not consider broader policy matters such as the returns to sea rules – in effect, a first principles approach to consider the efficacy of using cameras to address various fisheries management information needs.

- 3.2 The following items are considered to be out of scope for this initial activity for this working group: Ownership and use of data, cost and cost models.

4 Governance and process

- 4.1 The Working Group will report to the Deputy Director-General Fisheries New Zealand.
- 4.2 While Fisheries New Zealand maintains the right to provide independent advice to the Government, it will endeavour to provide advice consistent with recommendations of the Working Group. If Fisheries New Zealand's advice differs from recommendations of the Working Group, the Ministry will inform the members of the Working Group in advance and explain the reason for providing differing advice. The same process would apply if Industry provides additional advice to Ministers pertaining to the Working Group.
- 4.3 The Working Group will undertake the review, including production of a report that is focused on delivering to the objectives above. The group will provide a progress report to the Deputy Director-General Fisheries New Zealand monthly.
- 4.4 The Working Group will be supported by a secretariat provided by Fisheries New Zealand which will arrange meetings, work with the Working Group to agree an agenda prior to any meeting, take minutes, and commission work at the direction of the Working Group.
- 4.5 The intention is to provide a single report with joint recommendations on the technical specifications for on-board cameras addressed in the report. If ultimate agreement cannot be reached on any recommendations, the report will indicate the respective positions of parties on the areas of disagreement and their rationale for these positions. The report will be drafted by Fisheries New Zealand.



- 4.6 Government and industry members of the Working Group can agree to a particular position on an issue subject to any internal consultation that they may need to undertake to confirm a position. Both parties will expeditiously undertake the required consultation so as to assist the progress of the Working Group.
- 4.7 Discussions and material produced will be held in-confidence and it is anticipated that the detail of the discussions in the Working Group will not be actively disseminated, subject to the requirements of the Official Information Act (Note: it is expected that members will need to bring expertise and other insights from their respective organisations and as such will need to be able to have appropriate discussion within their organisations in order to bring the value to this working group).
- 4.8 Membership and the terms of reference for the group will be signed off by the Deputy Director-General Fisheries New Zealand.

5 Membership

- 5.1 Working Group members will be broken into two phases:
 - a. Phase one: Data Definition
 - i Chair: Kevin Bryant (Director Digital Monitoring - MPI)
 - ii **MPI officials:**
 - a. 9 (2)(a) (Senior Fisheries Analyst),
 - b. 9 (2)(a) (Team Manager Deep Water Fisheries),
 - c. 9 (2)(a) (Principal Adviser, Data Transformation),
 - d. 9 (2)(a) (FNZ Camera Project Manager)
 - iii **Non-government participants:**
 - a. 9 (2)(a) (TBC)
 - b. 9 (2)(a) (Seafood New Zealand),
 - c. 9 (2)(a) (Fisheries Inshore New Zealand),
 - d. 9 (2)(a) (The Nature Conservancy),
 - e. 9 (2)(a) (WWF),
 - f. 9 (2)(a) (Deepwater Group)
 - b. Phase 2: Technical Specification
 - i As above, plus:
 - ii Fisher representatives from exemplar fisheries/methods (personnel TBD)
 - iii Electronic Monitoring technical experts (TBD)
 - iv Technical Providers



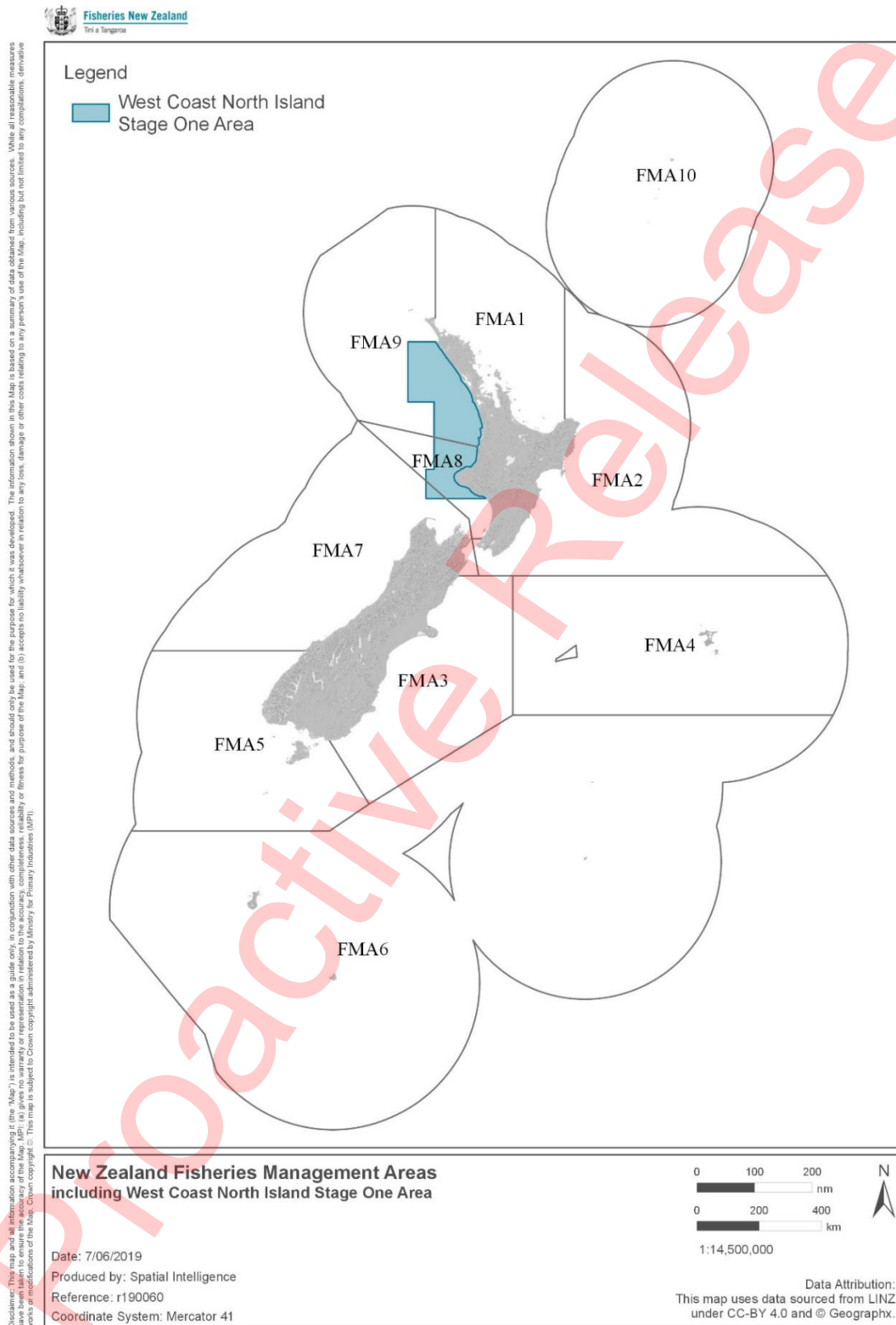
6 Indicative timetable

- 6.1 The intention is that the Working Group will complete its considerations and develop a final report by the end of May 2020. This is a stretch target, but important given the issues at hand.
- 6.2 Phase one should be completed by 28 February 2020, with a draft report due at the end of April 2020, and a final report due by 31 May 2020.

Note: The timetable will be amended to reflect the later start of the Working Group and the impacts of Covid-19 on the Working Group process.



Appendix One: Fisheries Management Areas





Agree on Cameras Technical Working Group Terms of Reference

Agreed/Decline

Signed:

Dated: 30 June 2020

Kevin Bryant, Digital Monitoring MPI

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