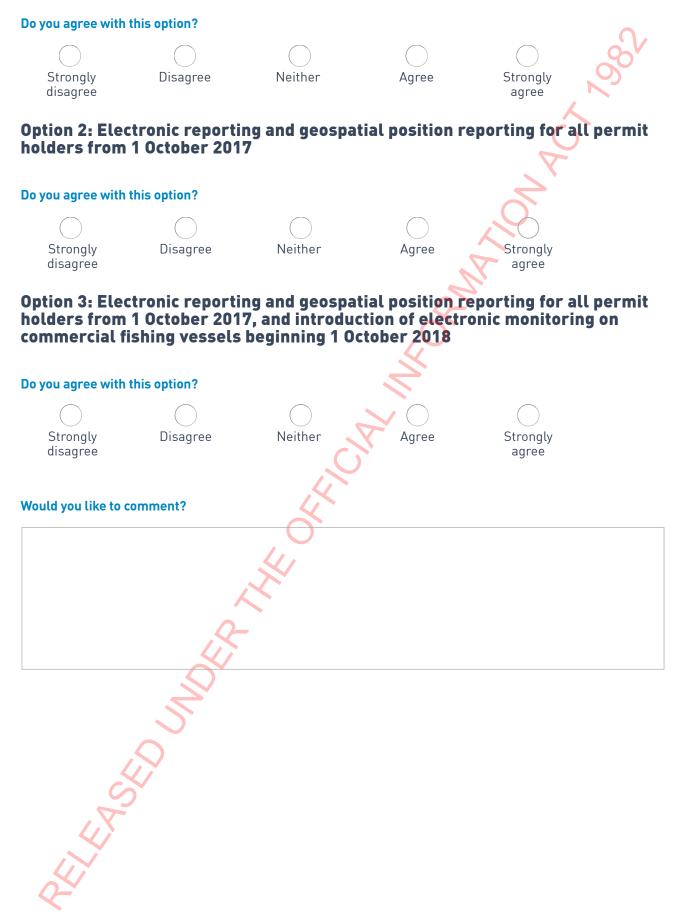
Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

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Objectives



Option 1: Current state



General questions

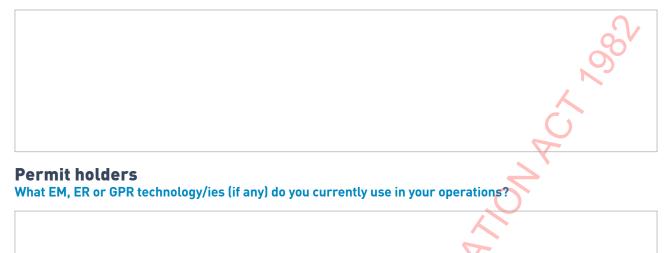
Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catch-effort reporting?



Do you operate this technology on your own behalf, or as an input into someone else's operations?

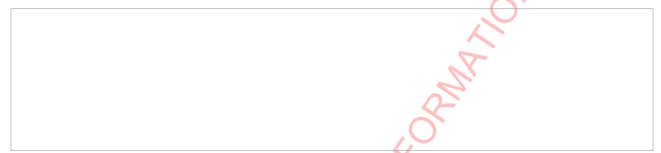
If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

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What issues do you currently have with ER?

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?



Commercial stakeholder organisations (CSOs)

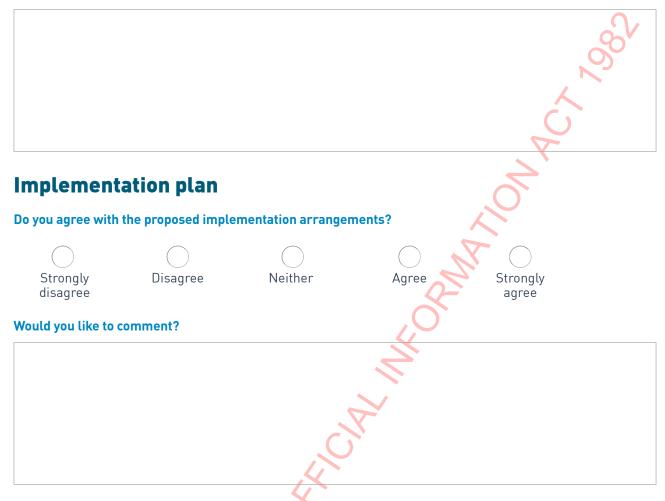
If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Licensed fish receivers

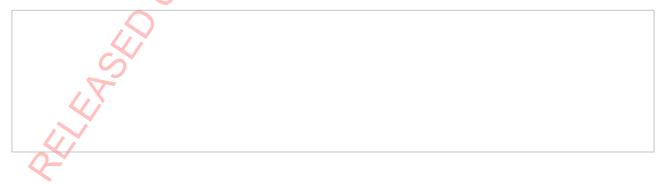
What problems do you experience with landing data?



Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?



What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?



Monitoring, evaluation and review

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Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

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Objectives



Option 1: Current state

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General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

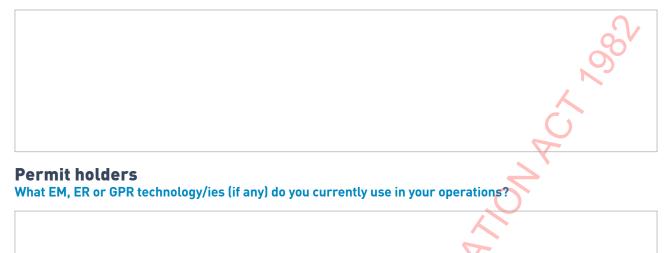
Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

Operators have and will not welcome this. MPI must ensure that operators are left in no doubt that accurate reporting will take place and fines to be large enough to discourage inaccurate reporting and tampering of monitoring systems

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catch-effort reporting?



Do you operate this technology on your own behalf, or as an input into someone else's operations?

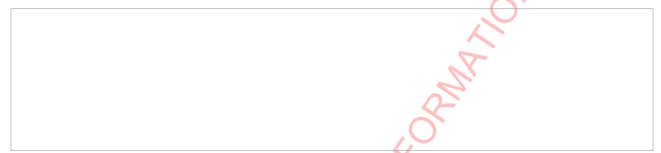
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What issues do you currently have with ER?

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?



Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Licensed fish receivers

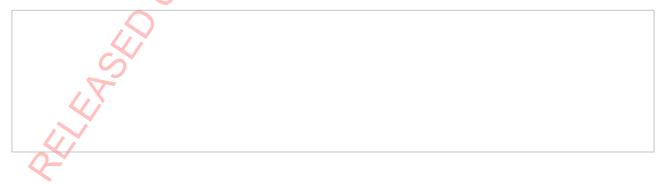
What problems do you experience with landing data?



Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?



What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?



Monitoring, evaluation and review

| Do you agree with | the proposed monit | oring, evaluation an | nd review arrangen | nents? | 0. |
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What do you think should be monitored? To whom should the results be reported?

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Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

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| Problem de | efinition how we have define | ed the problem? | | | |
| Strongly disagree | Disagree | Neither | Agree | Strongly agree | |
| Would you like to oproblem? | comment? For insta | nce, what evidence | should we examine | e to inform further analy | sis of the |
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Objectives

Do you agree with the objectives of IEMRS?





Agree



Would you like to comment?

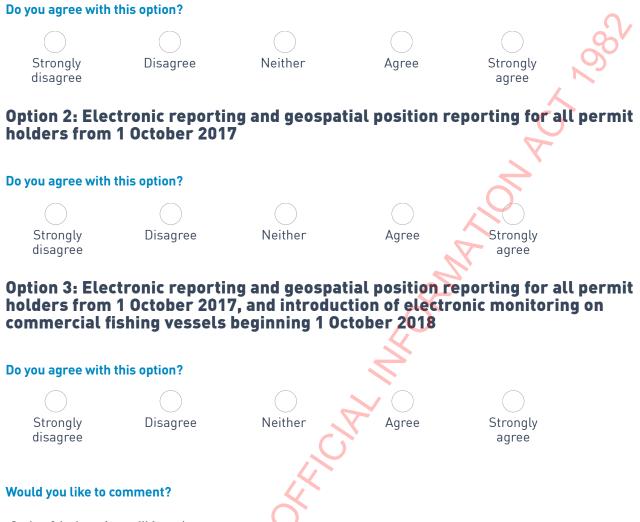
Agree

The objectives are fine, but they do not acknowledge just how big a challenge this is. The implication in the document and in the PR is that EM will solve bycatch problems.

The issue of independence is cricial here. The agency that collects and examines the EM data can have no direct link to the stand of the s the fishing industry. The current contractor is not credible in this regard.

4. ANDER WERE

Option 1: Current state



Option 3 is the only credible option

The key problem is in the allocation of resources to do with reviewing video. Who will watch the videos? What proportion of them will be examined? What are the decision rules around what video is examined? Also, Can individuals can be prosecuted for disabling some aspect of the system? There have already been issues with reliability.

One important problem with bycatch is dropout. We saw in the Operation Achilles video how fishers deliberately attempted to cause drop out of entangled Hector's dolphins. Without an observer on board, it seems likely that this practice will increase. There needs to be significant observer coverage attached to these fisheries also. Observers and cameras are not alternatives.

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

New Zealanders potentially benefit by having greater confidence in the level of bycatch, which to date has been very poorly known. Knowing that they are being surveilled may improve the behaviour of fishers. Fishers could benefit by being able to "prove" their operations are as clean as they say that are. Video monitoring of catch could provide a check on the accuracy of reported catch and, via length-frequency analysis for example, improve the quality of information available for stock assessment.

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

Fisheries with known or suspected takes of protected species should be addressed first. Particularly important are inshore trawl and gillnet fleets, as these have had negligible observer coverage in the past. Almost all observer coverage has been allocated to deepwater and middle depth fisheries.

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catch-effort reporting?

Fisheries enforcement officers on their own patrol vessel. This is routine in many other countries.

Permit holders What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

What issues do you currently have with ER?

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Licensed fish receivers

What problems do you experience with landing data?

Implementation plan

Do you agree with the proposed implementation arrangements?



Disagree

Neither

er

Aare

Strongly agree

Would you like to comment?

Neither

My impression is that implementation needs to be speeded up. EM was proven to be feasible more than a decade ago.

I am uncomfortable with the timid way in which MPI approaches its interactions with the industry. In Table 2 MPI lists risks to do with acceptance of these solutions by fishers. They need to be told to comply, or get out of the fishing industry.

Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?

So long as the company providing the service has no financial or other link to the fishing industry

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

Make self-sabotage of the equipment, or deliberately hiding material from camera view, a criminal offence.

Monitoring, evaluation and review



uti This will vary by fishery, but will need to include byactch of protected species, fish bycatch and evidence of benthic impact.

Volume III: Integrated Electronic Monitory and Reporting System (IEMRS)

Current state

Do you agree with how we have defined the current state in relation to monitoring and reporting (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | \boxtimes |
| Agree | |
| Strongly Agree | |

Would you like to comment? For instance, how would you describe the current system? What other factors should be considered?

Shambles. The Trident programme has not as yet worked and the failure rate is ridiculously high.

We all know of the interest Trident has with a Sandfords director (and National Party President).Concerning and part of the "tolerated corruption" allowed by MPI.

Problem definition

Do you agree with how we have defined the problem (please tick only one box)?

| Strongly disagree | |
|-------------------|------------|
| Disagree | |
| Neither | \searrow |
| Agree | |
| Strongly Agree | |

Would you like to comment? For instance, what evidence should we examine to inform further analysis of the problem?

More open research is needed with methods and systems being used by successful fish management programs considered (from not only English countries).

Discussion document November 2016

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| Strongly disagree Disagree Agree Disagree Disagr | Objectives | | | |
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Option 1: Current state

Do you agree with this option (please tick only one box)?

| Strongly disagree | |
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| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |

Option 2: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017

Do you agree with this option?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
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| Strongly Agree | |

Option 3: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017, and introduction of electronic monitoring on commercial fishing vessels beginning 1 October 2018

Do you agree with this option (please tick only one box)?

 \square

 \boxtimes

Strongly disagree Disagree Neither Agree Strongly Agree

Would you like to comment?

All in a reasonable time frame.

Discussion document November 2016

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catcheffort reporting?

Permit holders

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

What issues do you currently have with ER?

Discussion document November 2016

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

24 Ministry for Primary Industries

Licensed fish receivers

Would problems do you experience with landing data?

Implementation plan

Do you agree with the proposed implementation arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|--|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Would you like to comment?

Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

Discussion document November 2016

Monitoring, evaluation and review

Do you agree with the proposed monitoring, evaluation and review arrangements (please tick only one box)?

| Strongly disagree | |
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| Disagree | |
| Neither | |
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Would you like to comment?

2 Mitoria ed? T. What do you think should be monitored? To whom should the results be reported?

Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

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| Need accurate, not w | rishful measurement | of declining fish popu | ılations | | |

Objectives



Option 1: Current state



General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Much more real science needs to be incorporated. Disadvantage cost. Benefits, much clearer and less subjective actions

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

More accurate information on all fishing activities would clearly benefit the more "law abiding" fishers as well as maintaining their stocks better.

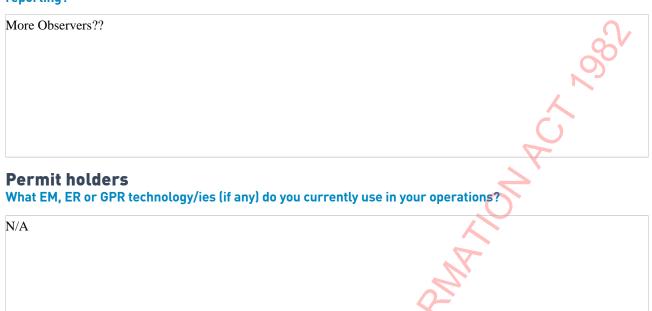
Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

As soon as is technically and financially feasible

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

maintaining equipment?

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catch-effort reporting?



Do you operate this technology on your own behalf, or as an input into someone else's operations?

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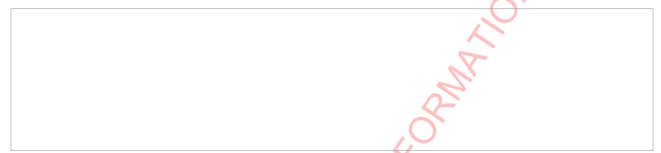
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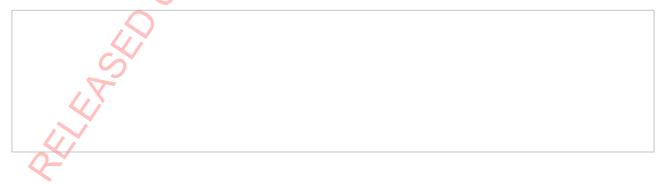
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What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?



Monitoring, evaluation and review

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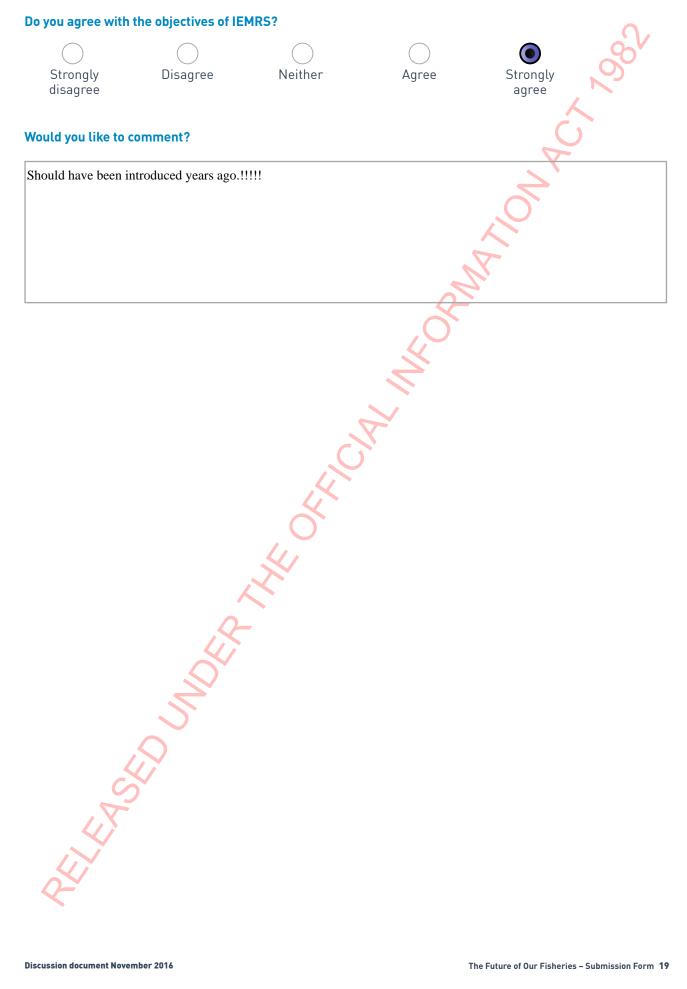
What do you think should be monitored? To whom should the results be reported?

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Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

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| Strongly disagree | Disagree | Neither | O Agree | Strongly agree | |
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Objectives



Option 1: Current state



General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

 Piracy should be attended to effectively. Double dipping by licence holders must be stopped.

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Higher levels of knowledge will help higher levels of abundance will help higher catch levels.

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

Low or no interest loans for say five years, urgent implementation, arms length trustworthy equipment supplier.

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

Most can be overcome by well skilled people.

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catch-effort reporting?



Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative

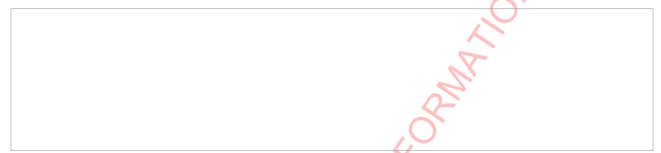
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What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?



Commercial stakeholder organisations (CSOs)

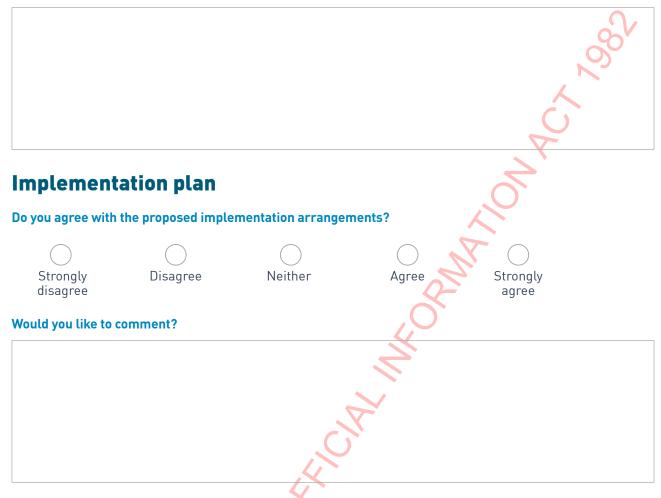
If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Licensed fish receivers

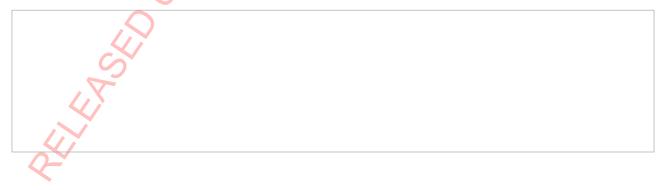
What problems do you experience with landing data?



Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?

| should be arms length input as well | | |
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What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?



Monitoring, evaluation and review

| Do you agree with | the proposed moni | toring, evaluation a | nd review arrangen | nents? | 0. |
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Do you agree with how we have defined the current state in relation to monitoring and reporting (please tick only one box)?

| Strongly disagree | |
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| Disagree | |
| Neither | |
| Agree | YES |
| Strongly Agree | |

Would you like to comment? For instance, how would you describe the current system? What other factors should be considered? All efforts appreciated

Problem definition

Do you agree with how we have defined the problem (please tick only one box)?

| Strongly disagree | |
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| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | YES |
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Would you like to comment? For instance, what evidence should we examine to inform further analysis of the problem? Inviting public input = excellent

Objectives

Do you agree with objectives of IEMRS (please tick only one box)?

| Strongly disagree | |
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| Disagree | |
| Neither | |
| Agree | YES |
| Strongly Agree | |
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Would you like to comment?

Option 1: Current state

Do you agree with this option (please tick only one box)?

| Strongly disagree | |
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| Disagree | |

| Neither | |
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| Agree | YES |
| Strongly Agree | |

Option 2: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017

Do you agree with this option?

| Strongly disagree | |
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| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | YES |

Option 3: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017, and introduction of electronic monitoring on commercial fishing vessels beginning 1 October 2018

Do you agree with this option (please tick only one box)?

| Strongly disagree | |
|-------------------|-----|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | YES |

Would you like to comment?...good for you,- and good luck

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Illustrations to show people how our marine environments once were,- and what we can aim for again...most people 'in overload' plus short attention span...picture says a thousand words,- such as the one you utilized (hands around the NZ ocean) to put in newspapers encouraging this input – well done

12 Ministry for Primary Industries

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly? Monitoring, Transparency, Peace of Mind

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out? Doubtless MPI has the matter well in hand

What do you consider are particular difficulties that vessel operators may encounter in implementing EM? budget, weather, competence

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catcheffort reporting? Ask fishermen re fair alternative option at the hui coming up

Permit holders

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

What issues do you currently have with ER?

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

14 Ministry for Primary Industries

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Licensed fish receivers

Would problems do you experience with landing data?

Implementation plan

Do you agree with the proposed implementation arrangements (please tick only one box)?

| Strongly disagree | |
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| Disagree | |
| Neither | |
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| Strongly Agree | |

| Strongly Agree | | 5 | | | |
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| Do you see value in a M | PI, commercia | I sector and serv | vice provider | working group t | to work on |
| implementation issues? | | | | | |

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

Monitoring, evaluation and review

| Do | you | ag | gree | with | the | propo | sed | monite | oring, | evaluat | ion | and | review | arra | ingem | ents | (please | tick | only |
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Strongly disagree DisagreeNeitherAgreeStrongly Agree

Would you like to comment?

What do you think should be monitored? To whom should the results be reported?

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[Not relevant to request] K [Not relevant to request]

[Not relevant to request]

Similarly the massive costs of processing and storing the amount of information you talk about collecting for EM are glossed over, and should be stated up front.

[Not relevant to request]

For example it seems unreasonable for fishers to be expected to report (to species level) every single species that they catch. This could be twenty or thirty species per tow. This seems as if it would be outside of the taxonomic knowledge they could reasonably be expected to have, and an unreasonable respondent burden (contrary to the Department of Statistics data collection protocols). Their current processes may not involve sorting to species level when they are completing the catch estimates for tow by tow section of the TCEPR. It may not even be possible to make these estimates at this time (as the fish may be still in the net and hence not visible). The data collection system needs to be integrated with the fisher's processes in order for it to be achievable, otherwise you will just get rubbish data.

And because the data is complex it needs lots of validation, (and lots of testing of the system) to ensure that the data is as good as it can be. This is not cheap, and should not be skimped on.

The fact that only 10% of fishers have chosen to use Electronic Data Transmission suggests that 90% have chosen not to. It seems unreasonable to force it on them. Generally you would not expect good data quality or good compliance when you force respondents to use a mechanism that they are uncomfortable with. The fact that you can only detect 4% error rate when they submit electronically may just mean that anything that raises an error on their system they just "simplify" to get the computer to accept. And the error rate with unwilling fishers may not be the same as with fishers who voluntarily chose to use that channel. For example, if I am an old

codger being forced to use a system that I dont like and it tells me I cant enter some value I have always just handwritten on the form (which has always been interpreted by the data entry operator because it is clear what is intended) then I am incentivised to just lie and say that it didn't happen. Hence we dont get the data any more and we have an unhappy respondent who has learned to lie on their forms and get away with it.

In order for Electronic Monitoring to work on vessels, the vessels would have to completely change their processes. For example, Electronic Monitoring would not be able to monitor discards (for example of fish below the minimum legal size) unless fish is binned by species and then shown explicitly to the camera before discarding from a pre-determined discard point that is observed by a camera. In order for live fish to survive you need to get them back into the water as soon as possible, so they would normally be flicked over the side quickly. It seems a bit unreasonable for all fishers around the country to have to fundamentally change their business processes (presumably at a large but invisible cost) and is unlikely to provide information benefits desired.

Observers are on vessels for lots of other tasks than collecting the kind of catch effort data that could be monitored using Electronic Monitoring. Electronic Monitoring cannot for example collect length frequency or gonad stage information. Neither can it be collected in the sheds once the vessel has landed, as at that stage you cannot tell which tow (and hence which location etc) the fish came from. So cost savings are probably overestimated.

Marianne Chan s 9(2)(a)

20 December 2016

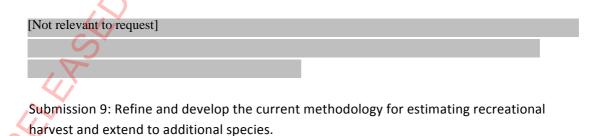
Title of Consultation: Future of Our Fisheries

Name: Environmental Defence Society (Contact: Gary Taylor) Postal Address: PO Box 91736, Victoria Street West, Auckland 1142 Telephone Number: s 9(2)(a) Email: gary@eds.org.nz

SUMMARY OF SUBMISSIONS

| [Not relevant to request] |
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Submission 7: Implement the Integrated Electronic Monitoring and Reporting System without delay on all commercial fishing vessels.





STRATEGIC PROPOSAL 2: BETTER FISHERIES INFORMATION

Option 1: Implement Integrated Electronic Monitoring and Reporting System

EDS strongly supports the implementation of electronic monitoring and reporting so that robust information is obtained about catch, by-catch, and discarding on all commercial fishing vessels. Such a system is likely to change behavior out on the water for the better. It will also provide more reliable figures on the extent of bycatch of protected species and discarding, thereby enabling more effective responses to these issues to be put into effect.

To have credibility, the system needs to be transparent and independently verifiable. The resultant data and analyses should be publicly available (subject to commercial confidentiality issues being addressed). Policy needs to be developed, setting out clear processes and expected management responses, when poor performance or adverse information is revealed by the cameras. This is to address the problems highlighted in the Heron report, which indicated that compliance processes within MPI had been unclear, with differing expectations between observed fishers, staff and management, resulting in low public confidence in the compliance system.

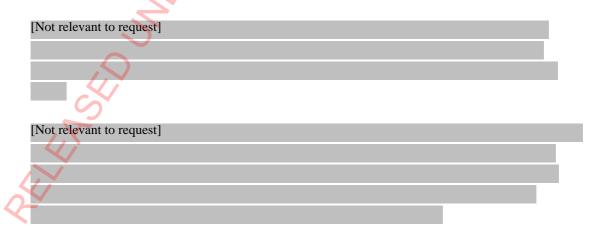
EDS would emphasise that this type of onboard generated fisheries data is not a substitute for investment in good industry-independent fisheries science as outlined below.

Submission 7: Implement the Integrated Electronic Monitoring and Reporting System without delay on all commercial fishing vessels.

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Monitoring of non-commercial fisheries

Effective fisheries management is reliant on good information about harvest levels. Harvest levels in the commercial fishing fleet is reasonably well monitored and will improve with the introduction of electronic monitoring. Harvest levels in the other sectors is less well known.



Submission 9: Refine and develop the current methodology for estimating recreational harvest and extend to additional species.

There appears no reason why amateur charter vessels, which are in effect operating commercial businesses based on fish harvest, should not be required to report all their catch, and to have electronic monitoring installed (at least on the larger vessels). This would provide reliable figures from this growing sector.

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1.11 We support other options, also under Strategic proposal 2, to invest in an integrated electronic monitoring and reporting system (Option 1), to gather more information to support decision making (Option 2), and to use more externally commissioned research (Option 4) (Vol. I, p20-21). However, in line with the precautionary principle, we caution against any unnecessary delay in the implementation of measures to improve the health of the marine environment while this data is being collected.

| [Not relev | | | | |
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2. Intergrated electronic monitoring and reporting system (IEMRS).

I support option 3.

 Electronic monitoring and geospatial position reporting for all permit holders from 1st October 2017 and the introduction of electronic monitoring in stages from 1st October 2018.

However, I question the timing. Why does it take another 20 months to <u>start</u> the introduction of electronic monitoring and what is the completion date of <u>all</u> vessels will have to comply by?

I also question the suitability of Trident to undertake the monitoring. To appoint a company that is partially owned by the fishing companies to effectively police themselves is farcical.

"The poacher is guarding the forest"

I understand that there were other options available but another international company with extensive experience was overlooked for an unproven, compromised, operator.

A report on why this operator was chosen is being withheld from the public. Hardly transparent management we are promised in Objective 2. "Fisheries management system is widely trusted in New Zealand and Internationally".



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Catch monitoring system

E tū supports the catch monitoring system as introduced.

However, the decision was taken to allow the industry to self-monitor and no one should be surprised that evidence of regulation breaches has simply disappeared.

Vessels must be properly monitored and this needs to be undertaken by a completely independent organisation. Instead, the Ministry of Primary Industries has contracted out this work to an organisation run by the fishing industry - effectively a situation of the fox guarding the henhouse.

To be honest, this is as much about the integrity of MPI as it is about the industry. The actions and outcomes to date - particularly around the essential monitoring of harvesting and dumping - give MPI very little if any credibility in the eyes of the New Zealand public.

Currently, there is a requirement for boats to have video equipment on board to monitor dumping and other regulations. Initially, footage showed significant breaches, but MPI failed to prosecute, telling offenders not to do it again.

Since then footage has been disappearing despite reports of further breaches, with experienced fishers telling the public via the media that dumping happens all the time.

But fishers know they can break the law with impunity because MPI won't act.

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I agree with many of the comments above, so it is interesting that the scoring on agreement is quite different. From a science, monitoring and assessment perspective, discards are very undesirable unless they, and any adverse impacts they might have on the ecosystem, are properly quantified. If they can be quantified (e.g., through IEMRS) and are of low adverse impact, then minimal discarding seems justifiable (e.g., for non-commercial species that have minimal value for meal on larger vessels, or of limited value but a nuisance in large quantities, such as spiny dogfish). Ideally any discarded QMS species should be recorded against quota.

| discarded Qivis species should be recorded against quota. | |
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Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

Current state

Do you agree with how we have defined the current state in relation to monitoring and reporting?



Disagree

Neither

Agree

Strongly agree

Would you like to comment? For instance, how would you describe the current system? What other factors should be considered?

The focus on IERMS concentrates on only one aspect of monitoring (catch reporting) and ignores the rest. My analogy is that 'you cannot tell how many sheep you have in a paddock by putting cameras at the freezing works'! Improved management of our fisheries (starting with single species assessment and hopefully eventually ecosystem-based management) requires us to know fundamentally about how many fish are out there. In many cases this requires fisheries independent monitoring which is expensive, and reducing under the current regime. The Future of our Fisheries documents provides no consideration about how this basic, long-term monitoring will occur.

More accurate catch recording is essential to management of our fisheries and social license to operate.

Problem definition

Do you agree with how we have defined the problem?



Would you like to comment? For instance, what evidence should we examine to inform further analysis of the problem?

Successful monitoring and management of fisheries provides long-term social, economic, and environmental benefits which are often intangible and hard to quantify when compared to the short-term costs of providing the data and advice needed to successfully manage. The focus on IERMS seems in part to be a 'knee-jerk' reaction due to recent media coverage of discarding, and does not address the whole problem.

We need to know three things to successfully manage a fishery:

- 1. Removals (catch)
- 2. Biology (stock structure, growth, reproduction etc)
- 3. Abundance (stock size and how this is changing).

The document only focuses on the first of these 3 factors - at the same time ignoring that we have little information on the other two key aspects for many QMS species.



Objectives

Do you agree with the objectives of IEMRS?



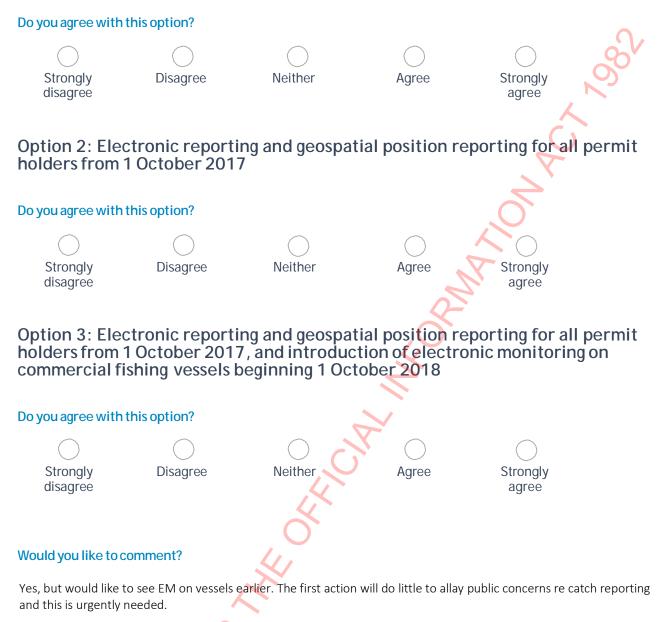
Would you like to comment?

The objective of IERMS is to provide better information on removals (catch). It may do this, but it will be expensive (especially for associated shore-based image analysis) and may not be the most cost-effective option for all sectors of the industry.

For the inshore fisheries IERMS appears to be a good option to pursue. How well it can deliver on all the things that seem to be promised is yet to be determined.

In terms of collecting data on fish catches and removals, this sort of system would work (assuming technology is up to scratch). Would be an improvement on current system anyway. There are other aspects of fisheries management though and knowledge of fish abundance and biology are also important. the set of the set of

Option 1: Current state



General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

The large number of MPI staff needed to examine the video footage is of major concern and these staff resources may be better employed as actual human observers? This may especially be the case with EM on larger deepwater vessels with much more complex catch handling and processing operations. What is the proposed annual cost of IERMS on all commercial vessels? And will the industry pay for the data analyses?

None of the other options (other than IERMS) seemed to have been considered? In particular, how do we obtain (and fund) estimates of abundance and collect biological information on low information (and no information) stocks. IERMS won't provide this.

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

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If you do not consider EM practical on some vessels, how else would you propose MPI verification of catcheffort reporting?

Permit holders

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative in it is shown in the second s body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

What issues do you currently have with ER?

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

Commercial stakeholder organisations (CSOs) If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

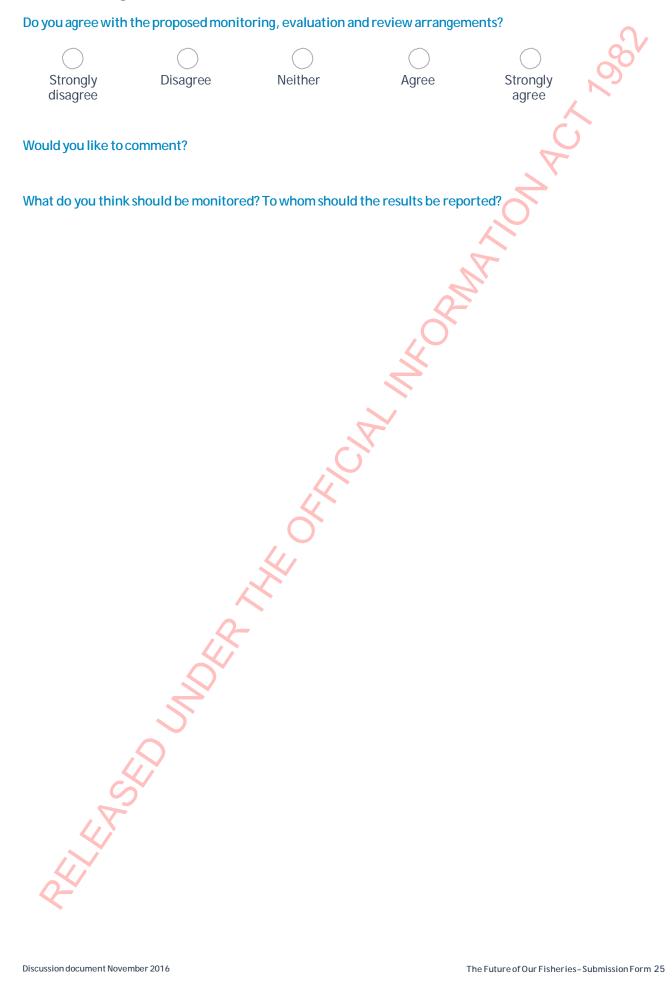
How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

TOR. Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Licensed fish receivers What problems do you experience with landing data?

| Implement | ation plan | | | 8V |
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| Do you agree with | the proposed imple | mentation arrangen | nents? | K |
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| Strongly disagree | Disagree | Neither | Agree | Strongly agree |
| Would you like to c | comment? | | | N. N |
| Do you see value ir issues? | n a MPI, commercial | sector and service p | provider working g | roup to work on implementation |
| What other issues | does MPI need to co | onsider to facilitate t | he commercial fle | eet's transition to IEMRS? |
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Monitoring, evaluation and review



Future of Fisheries Vol. 3

Integrated Electronic Monitoring and Reporting

Dr. Peter D. Knight

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·ff O· I write to make a submission on the electronic monitoring of the Bluff Oyster Fishery. Of particular concern is the possibility that the position of every 'tow', that is the position of each and every catch effort in the fishery, will be recorded, and become part of an electronic database to which the Government of New Zealand control rights of access.

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 Independent of the second o Use this learning, don't go blinkered down the path of applying a simple technological technique (electronic monitoring) in the place of a complex response that honours the local

Volume III: Integrated Electronic Monitory and Reporting System (IEMRS)

Current state

Do you agree with how we have defined the current state in relation to monitoring and reporting (please tick only one box)?

| Strongly disagree | |
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| Disagree | \boxtimes |
| Neither | |
| Agree | |
| Strongly Agree | |

Would you like to comment? For instance, how would you describe the current system? What other factors should be considered?

The discussion document identifies the major problems with the current monitoring and reporting system, but downplays the scale of the problems and provides a fairly optimistic view of current fisheries performance.

Problem definition

Do you agree with how we have defined the problem (please tick only one box)?

| Strongly disagree | |
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| Disagree | \boxtimes |
| Neither | |
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Would you like to comment? For instance, what evidence should we examine to inform further analysis of the problem?

The Trust believes that there is sufficient evidence available to suggest that there are problems, but again these is somewhat downplayed in the MPI description. For example a recent independent report (Simmons et al 2016) states that the actual annual catch of New Zealand marine fisheries is 2.7 times the amount officially reported to the Food and Agriculture Organization of the United Nations (FAO).

Discussion document November 2016

Objectives

Do you agree with objectives of IEMRS (please tick only one box)?

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| Strongly disagree | |
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| Disagree | |
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| Strongly Agree | |

Would you like to comment?

The Trust agrees with the proposal to establish an Integrated Electronic Monitoring and Reporting System (IEMRS), placing video cameras on all fishing vessels. MPI has acknowledged that there are problems with under-reporting of catch and bycatch, and is now taking steps to address it via implementing an IEMS.

However, the Trust believes that in addition to the current objectives sufficient resources also need to be allocated to reviewing the video footage and acting on it by enforcing regulations and prosecuting where necessary. Additionally, cameras should not be a substitute for observer coverage. Observers are required in order to calibrate the JEMS system and monitor its effectiveness, at least over the initial few years of operation. This would ensure that we can have confidence in the efficacy of the system. S. C. S. C.

Option 1: Current state

Do you agree with this option (please tick only one box)?

| Strongly disagree | \boxtimes |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Option 2: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017

Do you agree with this option?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |

Option 3: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017, and introduction of electronic monitoring on commercial fishing vessels beginning 1 October 2018

Do you agree with this option (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | \boxtimes |
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Would you like to comment?

The Trust agrees with MPI that Option 3 is the preferred option. More accurate real-time and finer scale information on catch data, bycatch and fisheries effort are absolutely required in order to better manage our fisheries. The IEMRS will also act as a deterrent to discarding and give consumers more confidence in our fisheries system.

Discussion document November 2016

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

In addition to the preferred option 3, sufficient resources need to be allocated to reviewing the footage and observers need to be used on a percentage of the vessels (as stated earlier). This will provide advantages for the management of fisheries, for example, observers will allow assessment of any errors associated with the electronic monitoring system, drop-out rate (of penguins and other bycatch) before they come into view of the camera, weights and measurements of fish, and other data that cannot be collected via the video system. Any fisheries offences (e.g. fish dumping or protected species mortality) documented on video should be followed up to deter future offending and improve management of the fisheries.

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

IEMRS will be essential in providing a social licence to operate for the fishery. Fish stocks and other species affected by fishing (including protected species) belong to all New Zealanders. Without assurance that fishing operations are truly selective and sustainable the New Zealand seafood "brand" will lose its credibility.

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

Prioritisation of the role out of IEMRS technologies should be risk-based. For example, non-selective fisheries and those with high protected species bycatch (e.g. penguins) such as setnets should be the highest priority, as well as those vessels (e.g. inshore trawls) which in addition are unable to take observers due to lack of space.

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

Vessel operators should be assisted by MPI to overcome any particular difficulties.

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catcheffort reporting?

EM is both practical and essential for the future of our fisheries management.

Permit holders

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

N/A

Do you operate this technology on your own behalf, or as an input into someone else's operations?

N/A

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

N/A

What issues do you currently have with ER?

N/A

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

N/A

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

N/A

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

N/A

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

N/A

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

N/A

Licensed fish receivers

Would problems do you experience with landing data?

N/A

Discussion document November 2016

Implementation plan

Do you agree with the proposed implementation arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |

Would you like to comment?

The TRUST agrees with the proposed implementation but not the proposed timescale. Electronic monitoring has undergone trials in New Zealand since 2003 and is successful overseas (e.g. Australia), so it is unclear why MPI is proposing to wait until 2018 to implement electronic monitoring.

Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?

The Trust sees value in having a small working group to facilitate implementation of the IEMS and ensure compliance.

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

None

Monitoring, evaluation and review

Do you agree with the proposed monitoring, evaluation and review arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | \boxtimes |
| Agree | |
| Strongly Agree | |

Would you like to comment?

For this monitoring system to be credible in the international arena, there is a need for strong independent expert input. The system should also comprise monitoring, evaluation, review and enforcement. There is no point in monitoring fishing patterns and infringements if there are to be no enforcement and repercussions for fishers.

What do you think should be monitored? To whom should the results be reported?

Monitoring should include the following information: fishing effort, fish catches, fish discarding, protected species and other bycatch (e.g. penguins), and the extent of environmental damage (e.g. bottom-trawled seamounts, damaged coral). These results should be reported to MPI and the independent scientific body (e.g. National Fisheries Science Council).

In addition particular data should be made available to specific interest groups such as the Yelloweyed Penguin Trust. The Trust would benefit from knowledge of yellow-eyed penguin bycatch events (including location, time, date, depth, target fish species, gear type) which would help in implementing our own management plans and making scientific based conservation decisions.

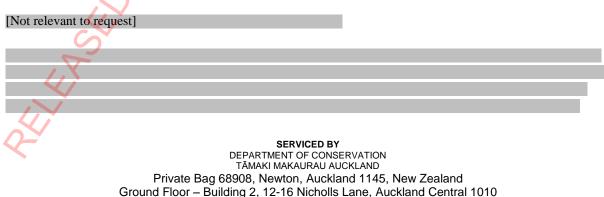
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AUCKLAND CONSERVATION BOARD Te Runanga Papa Atawhai o Tāmaki Makaurau

| Board File Ref: SBC-01-37 |
|--|
| 22 December 2016 |
| Future of Our Fisheries Ministry for Primary Industries PO Box 2526 Wellington 6140 |
| Email: <u>Fisheries.review@mpi.govt.nz</u> |
| Dear Ministry of Primary Industries |
| Submission on Future of Our Fisheries |
| [Not relevant to request] |
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Introduction of Integrated Electronic Monitoring and Reporting

The Auckland Conservation Board is supportive of the introduction of new technology for monitoring and reporting on fisheries activities. However, public confidence in the use of these technologies has recently been eroded by failings in their initial implementation in the commercial fishing sector. It is critical that the introduction of these technologies is done in a publicly transparent manner and appropriate safeguards are implemented to ensure high quality data capture and ongoing compliance. Additional measures above and beyond the "usual government procurement requirements" should be included to help restore the confidence of the public and interest groups.



Telephone (09) 307 9279, Fax (09) 377 2919



Amanda Leathers WWF-New Zealand Level 6 Davis Langdon House 49 Boulcott Street Wellington 6011 Tel: 04 4992930

Future of our Fisheries project team Ministry for Primary Industries Email: <u>fisheries.review@mpi.govt.nz</u>

23 December 2016

WWF – New Zealand is grateful for the opportunity to comment on the Future of Our Fisheries consultation documents. These comments have been developed with input and analysis from The Pew Charitable Trusts (New Zealand Office).

Executive summary

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We are particularly pleased to see that Government intends to address the economic incentives in the Quota Management System (QMS) that drive discarding and misreporting; and improve monitoring and reporting, including implementing the Integrated Electronic Monitoring and Reporting System (IEMRS). The biggest potential for positive change though is the intention to move towards Ecosystem Based Management (EBM) and manage stocks at higher abundance.

¹Objective 1: Abundant fisheries in our seas and a healthy aquatic environment; Objective 2: Everyone plays their part in managing New Zealand's shared aquatic resources; Objective 3: Everyone can share fairly in the social, economic, cultural and environmental benefits of our aquatic resources; Objective 4: The fisheries management system is widely trusted in New Zealand and internationally.

| • | [Not relevant to request] |
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5 Electronic monitoring

We support the proposed electronic monitoring across New Zealand's fishing fleet, and we recommend that there is a clear separation of technology provision from the role of reviewing footage for fisheries management and regulatory compliance. It is vital that there is trust and transparency in the system and therefore essential that the regulator is responsible for these latter functions. We support a transparent and competitive procurement process for technology provision.

We recommend that the Government:

• Ensure those who are reviewing footage for fisheries management and regulatory compliance are completely independent from the industry, and that information of public interest (gathered through electronic monitoring) is transparent and accessible to the public.

6 Summary of recommendations

We recommend that the Government:



| [Not re | levant to request] |
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| 10 In | plement electronic monitoring across New Zealand's fishing fleet, and ensure |
| | ose who are reviewing footage for fisheries management and regulatory |
| СС | mpliance are completely independent from the industry, and that information |
| | public interest (gathered through electronic monitoring) is adequately |
| ac | cessible to the public ('open source'). |
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| Submission on Future Of Our Fisheries |
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| New Zealand Marine Sciences Society |
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| We also |
| address the Regulatory change proposals 1 and 2: Integrated electronic monitoring and |
| reporting system and enabling a discussion on the pros and cons of different fishing gears. |
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| [Not relevant to request] |
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<u>Regulatory change proposal 1: Integrated electronic monitoring and reporting system</u> The introduction of the QMS saw a substantial reduction in on-the-water policing and monitoring. NZMSS supports the proposal for Integrated Electronic Monitoring and Reporting System (IEMRS) which will help to address this problem. However, the proposed electronic monitoring programme is far too narrow in scope. In addition to placing video cameras on vessels, sufficient resources need to be allocated to viewing the video footage. All of the footage, not just a small sample of it. More importantly, the information gathered needs to be acted on. If fisheries offences are documented on video, these need to be followed by prosecutions as recommended in the Heron Report. Observers are needed in addition to video cameras to estimate drop-out of dolphins and other protected species before they come in view of the video cameras.

The proposed implementation is too slow. For example, video camera monitoring is routine overseas and trials in New Zealand since 2003 have shown this is a practical option in our fisheries. It is not clear why MPI is proposing to wait until 2018 to implement this solution.

[Not relevant to request]

Submission on the Future of Our Fisheries

From: Royal Forest and Bird Protection Society of New Zealand Incorporated

Address:

PO Box 631 Wellington

Contact: Geoff Keey Strategic Advisor s 9(2)(a)

Because of timing this submission is relatively brief. Forest & Bird wishes to engage further with MPI over the next year in relation to issues raised in this submission, including our overall lack of confidence in the Ministry.

This submission is in three main parts:

- [Not relevant to request]
- Further comments in relation to electronic monitoring

| [Not relevant to request] | | |
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This submission contains strong criticisms of the performance of MPI so at the outset Forest & Bird would like to offer our reassurance that we have appreciated the professionalism of staff and the engagement we have had on electronic monitoring and the overall professionalism of MPI staff. The criticisms contained in this submission are of the functioning of the Ministry as a whole and not aimed at individuals.

| [Not relevant to request] | |
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[Not relevant to request]

Part II: Core consultation document

Addressing discarding of fish

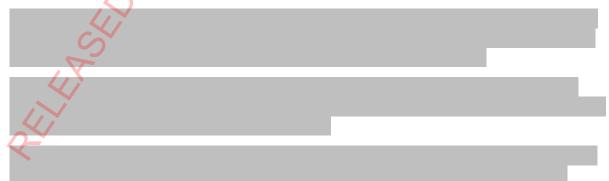
[Not relevant to request]

With the proposals outlined Forest & Bird has some concerns including:

• [Not relevant to request]

- MPI is presently unable to effectively monitor and regulate discarding as shown by the low level of prosecutions for an activity MPI's own documents describe as rife. New Zealanders are unlikely to have confidence that MPI new approval mechanisms
- [Not relevant to request]

[Not relevant to request]



| [Not relevant to request] | This needs |
|--|------------|
| to be backed up with robust monitoring and enforcement as well as honest communication | n by MPI |
| on the state of fisheries. | ~~~v |
| [Not relevant to request] | N S |
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Part III: Electronic monitoring

General Comments:

Forest & Bird strongly supports the need for electronic reporting and monitoring to improve fisheries management especially to stop fish dumping and other compliance issues including use of seabird mitigation. (Option 3)

Forest & Bird appreciates the engagement we have experienced over the development of electronic monitoring.

Electronic reporting will enable near real time data submission which will assist in managing fisheries as delayed data submission often means that annual planning is taking place based on data which is at least a year old.

Electronic monitoring will primarily improve fisher logbook reporting and enable discrepancies to be easily identified. Australian experience has shown significant improvement in fisher behaviour.

Electronic monitoring has not yet been adequately tested in comparison to at sea observers to determine its effectiveness for detecting bycatch incidents of protected species and species identification. Funding and trials will need to be focused on this area. Because of this it should be seen as adjunct to, rather than a replacement for, at sea observers.

In the Australian EBTF the focus has on verification of interactions with protected species and not on identification. Their report on their initial trials states they are unable to assess extent of injury and survivability of captured protected species. The trials were able to detect if tori lines were being deployed but not if the met the AFMA's standards. Technology was improved before full coverage was implemented in the fishery.

A major improvement in Australia has been the reporting on bycatch in logbooks despite the electronic monitoring system not estimating these well. Appropriate positioning or additional cameras will be essential for monitoring this aspect in our fisheries as it is a key issue in New Zealand.

Camera choice and location

There will need to be minimum standards required for cameras to ensure that there is sufficient high definition and positioning to support the required tasks. This will be especially important if electronic monitoring is to replace observers for bycatch. Forest & Bird would not support electronic observers replacing human observers at this stage for this reason.

In some fisheries – especially surface long line fisheries, fishers are potentially able to lean over the stern of their vessel and cut a branch line with a bird on it without being detected by a sternward facing camera. Cameras with a clear view of the whole stern of the vessel down to the water will be important to prevent this activity from occurring.

Monitoring protected species

The consultation document states "Protected species captures will be better estimated given more comprehensive monitoring coverage provided by electronic monitoring" In practice, this depends on two things

- Sufficient level of monitoring of video footage 20% is a minimum;
- The design of the monitoring system both in terms of quality of cameras and how species will be identified.

Birds need to be identified to species level to be able to determine population level impacts. Observers are able to return seabirds for verification of identification which in highly trained observers is still only about 80%. Ideally crew will need to work with the cameras to position birds appropriately so that they can be seen on the electronic monitoring cameras for ID purposes – both ventral and dorsal surfaces with good views of head and bill. If this is able to be achieved then dry observers should be able to identify many species. Feather samples would also be ideal, although there would need to be changes to the Wildlife Act to enable them to be taken. Another option so assist with seabird ID would be to have a camera facing aft behind the vessel so that birds attending the vessel can be seen. This would assist observers in verifying what species are caught as flying birds are easier to identify than a bundle of feathers on the deck! It will also enable the additional identification of high risk areas for seabird density. All of these issues need due consideration when developing the EM system.

How much data review?

In relation to costs associated with data review, Forest & Bird's understanding is that in the Australia Eastern Billfish fishery around 10% of the footage is reviewed to look for discrepancies with logbook data. Where any are found the whole lot is reviewed with the cost going to the fisher concerned. However for protected species estimation a minimum of 20% is required.

Legal requirement for observers

Forest & Bird understands that there is a legal requirement in NZ fisheries law for an observer to be able to be placed on any fishing vessel. Unfortunately there is a perception that fisheries managers however have bowed under pressure from the fishing industry not to require this citing health and safety issues. We now appear to have a situation where many fishers simply state they have not room for an observer. This means some of our most highly risky fisheries for protected species such as set netting have had extremely low levels of observer coverage.

Objectives of electronic monitoring

The objectives of electronic monitoring should include to meet international obligations, including the requirement under the Law of the Sea to preserve and protect the marine environment.

Mandatory placement

There should be mandatory camera placement on all commercial fishing vessels. If there are situations where this is not possible then perhaps those vessels should be retired. No commercial vessel owner or operator should be able to refuse cameras.

Integration of the three information streams

The consultation document states that integration of the three information streams (ER, VMS and EM) will be undertaken within MPI and will be available for review. It is not clear in the paper (pg. 17). But it is not clear who will undertake the review process.

MPI needs to clarify that this needs to be done independently from the fishing industry to maintain transparency. It could be done by an independent science provider such as NIWA.

Fishery specific monitoring plans

Fishery specific monitoring plans are possibly an acceptable mechanism to manage observer and camera- based monitoring. However there are a number of issues which are listed on pg. 17 which should be generic and not fishery specific (such as procedures for identifying discrepancies and procedures to follow especially in relation to compliance). These issues should all be predetermined in an overall plan prepared by MPI.

Phase in of IEMRS

Phase in of IEMRS should focus on high risk fisheries first – especially inshore trawl and set net fisheries and in bottom long line and surface long line fisheries. The lack of observer coverage in these fisheries in particular has created an issue in being able to set target bycatch reduction rates (as required by the NPOA-S) as statistically significant changes in bycatch rates cannot be detected due to such low observer coverage and have necessitated other non-empirical proxy targets. This is highly unsatisfactory and one of the goals of electronic monitoring must be to enable a high level of detectability and identification of seabird and other protected species bycatch to enable effective monitoring of the NPOS-S.

Representation on the working group

MPA plans to establish a new forum or working group to focus on development, implementation, monitoring and review of the new system. NGOs should be represented on this group to ensure transparency through public scrutiny.

Storage, usage and disposal of data

MPI should be the owner of the data and responsible for collecting storing and using it. Deletion of material no longer relevant would need to be in accordance with the law governing public records denter de and official information. OIA access is also necessary and supported.

Summary

| [Not relevant to request] |
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| To this end we would urge the MPI to implement the following five policies: |
| - [Not relevant to request] |
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| 100% capture of catch details for all commercial fish vessels and 100% traceability from boat to consumer (boat to batter): |
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| Responses to Consultation Questions |
| Part II |
| 1. [Not relevant to request] |
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Part III

- 1. The issue of data collection appears threefold: timeliness, accuracy and veracity. If the problem of using Observers is as set out then the IERS provides a good opportunity to improve data collection.
- 2. The objectives of the IEMS all stem from the need to stop dumping and discarding of fish.
- 3. We support full implementation of all components of the IEMS as soon as possible if and only if it does indeed prevent the appalling waste from dumping, discard and non-target species fish kill.
- 4. Given fish dumping should be eliminated by a combination of trawling technology improvement and monitoring what happens on every trawl on every boat, it would be useful for IEMS to be able to identify supporting data including when and where each trawl occurs and which nets or fishing techniques are employed.
- We suggest that fully functioning EM, ER and GPR systems are a prerequisite of any commercial fishing activity i.e. If a camera is reported as failing during a fishing expedition there should be no catch allowed or paid for.
- 6. IEMS should enable fish harvests to be tracked from trawl net to consumer, analogous to the pasture to plate concept. This is an additional check to eliminate illegal fish harvesting.

| [Not relevant | |
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- 4. The review and documentation is also heavily biased in favour of the recreational sector as evidenced by the following:
 - a. The focus on Integrated Electronic Monitoring and Reporting Systems (IEMRS) being applied to only Commercial and Customary Sectors. What about using modern technology to enhance recreational fisheries management? Why is this not proposed?
- b. [Not relevant to request]



Strategic Proposal 2: Better Fisheries Information

Option 1 – IEMRS

 We support the concept of IEMRS but are concerned that all this will do is provide a more rapid form of information that MPI is already gathering through the industry catch effort landing systems, whilst increasing costs. The failure to extend IEMRS to include the recreational sector is a fundamental mistake that will not improve fisheries outcomes while a significant portion of the data remains missing. We urge MPI to also require reporting for recreational fisheries as otherwise the information for decision making is both incomplete and out of sync with the realtime information required for "tomorrow's" best practice fisheries management norms.

| [Not relevant to request] | | |
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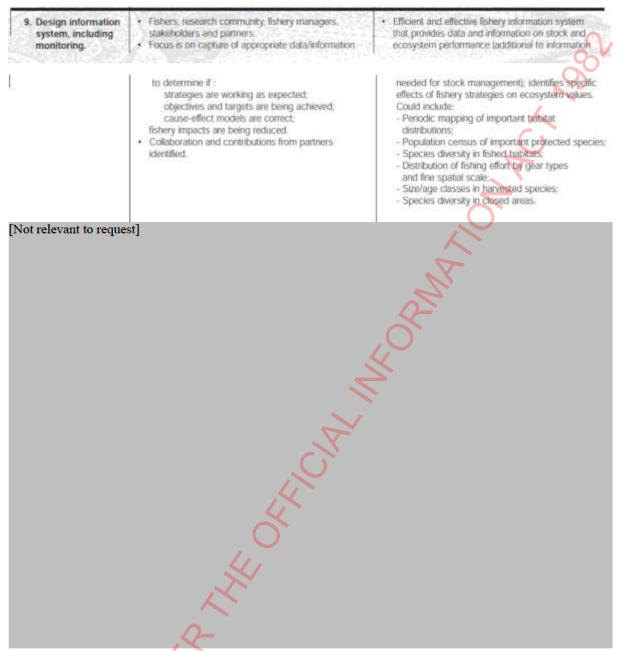


Table 6 in: Ward, T., Tarte, D., Hegerl, E., and Short, K. Policy Proposals and Operational Guidance for Ecosystem-Based Management of Marine Capture Fisheries. 2002.



You mentioned that all commercial fishing boats would be required to fit cameras. What an expence and what a difficult job it will be to monitor them even assuming they will be effective – fishermen are masters at getting around rules and regulations!! Should they come in I assume there will be a cut off length of boat (say 10m) which will not require them. They will be totally impractical on an open inshore boat, apart from the fact that such boats are most unlikely to be involved in dumping.

A very effective method of control has been a requirement that all boats have to

advise the authorities three hours before landing of where they will be landing and what they have on board (communications now make this simple and virtually cost free). It is not necessary to check all, or most, of the landings, but the very fact that they might be checked has improved compliance greatly.

| [Not relevant to request] | |
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Page 3

What vision would you propose, and why?

With the current and expected electronic technology [IEMRS], the ability to map, plot with Sonar CHIRP, GPS, and harvest the wild fishery, like around the world oceans, including NZEEZ is unprecedented. The technology to find and harvest any fish exposes the 'wild fisheries' to extinction, The improvement and power of modern vessels, efficient Mid-Water and Bottom Trawling, Purse Seining, Netting & Gill netting of all species with non-selective methods, will destroy any fisheries. Coupled this with "high-grading", there has emerged an increasing amount of waste and damaged to our coastal waters, and the Benthic ecology. [Not relevant to request]

Page 4

Address discarding of fish

Would you like to comment?

[Not relevant to request]

If a 'trawl' net bursts either

video [IEMRS] evidence or documented evidence or both must be lodged with MPI within 24 hours of the incident.

Page 6

What measures do you think would help in discouraging catches of small fish? Is minimum legal size needed?

[Not relevant to request]

A phasing in period may be

needed as the technology [IEMRS] gets developed. [Human observers on Fishing Vessels does not work and are 'cost' ineffective], even if funded by the tax-payer! [Not relevant to request]

[Not relevant to request]

Page 7

Maximise the value of our shared fisheries

What principles do you think should guide decisions on allocating the relative share of the TAC between non-commercial and commercial fishers?

[Not relevant to request]

Monitor the TC, TAC and TACC, by insisting that all Quota holding Vessels install EM or IEMRS and keep it all in perfect operating condition. Like any other electronic component of their Vessel. The IRMRS is the only system that has the potential to identify the 'cowboys' of the Industry. Human on ship 'observers' do not, for a whole lot of reasons. Their [C/CFS] options are; loose or suspend their "Quotas", or stop fishing until IEMRS is working to MPI's satisfaction. This may mean Fishing Vessels to return to the nearest port. But they would anyway if any Sonar or Chart-Plotter or GPS was out of order. The tracking System has to be as important to their fishing success as their Sonar Array/GPS/Chart Plotter. Commercial Fishers would not go to sea or fish, if their \$130,000 +, sonar array was malfunctioning or out of commission? If the 'Trident System' does not work [and recent reports of the trial, suggest it does not]......get one [IERMS] that will; Insist though Legislation that [IERMS] is 'conditional' to the operation of the QMS. [Not relevant to request]

| [Not relevan | |
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Page 11

Monitoring fisheries at finer spatial scale: Effective fisheries management takes place at a sub-QMA level.

Would you like to comment?

With the use of the IEMPS as proposed by MPI, the tracking of Commercial/Cultural Fishing Vessels, the problems of control should be easily addressed. A finer geographical scale will be achievable. [Not relevant to request]

Page 18 Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS) Current state Would you like to comment? For instance, how would you describe the current system? What other factors should be considered?

This is a start, It has great potential to police the law-breakers. Whether the technology can be adopted by the commercial fleet, [from all evidence it has already proved to be a 'paper-tiger' b/c of the way it was setup. The ownership of, "Trident" is like arranging for a 'fox to look after the henhouse.' If the Govt makes the rules, Its called Governing the Country NZ. MPI was created to enforce them. With all the 'buck-passing' that been going from [IEMRS] inception, it seem that neither NZ Govt or MPI have the 'balls' to run with it? For the system to be accepted by the Commercial/Customary Fishing sectors the law must be accepted and enforced. For anyone [taxpayer/Govt/the Fishing Ind] to spend thousand of dollars, and no-one has the guts to run with it, then the system has been a major 'misappropriation of funds'. So far nothing useful has happening. No viable/evidence has been tabled of collected? For [IEMRS] to be used by the administration [MPI] to managed the resource appears politically unpalatable, Industrially too sensitive, and a joke to the lawless sectors. Without the adoption of this [IEMRS] technology the Commercial Fishing Industry and Customary Fishing Sector can just continue their abuse of the resource They don't want anyone checking up on them. They don't want anyone knowing what they are doing, where or when they are doing it? This appears sinister and covert. The Rec. Fishing and the rest of the public can not believe how naive or fearful both MPI and Govt of something that would be 'game-changing' for us all. Potentially the concept is an excellent tool to monitor fishing activity on Commercial and Customary Fishing vessels. Maybe to bring some sanity and credibility to the commercial/customary sectors ? At this stage , in the development of IEMRS, as a monitoring device is all MPI can do .With more 'geospatial position' reporting, GPS Tracking a far more accurate fishing pattern that can be acquired from all commercial vessels, of where they fish and when. Some real useful information can be gathered. With records of actual catch level, where and when, a more clear picture will emerge of the real 'over-fishing' by whom.

Page 20

Option 3: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017, and introduction of electronic monitoring on commercial fishing vessels beginning 1 October 2018

Would you like to comment?

You've given us 3 option . Option 1 do nothing ,which is what the current monitoring is achieving. Option 2. applies to only 'permit holders' which we can only assume is all Fishing that operate under the QMS? Or does it mean all Commercial/Customary and Non Commercial and/or Recreation Fishers of all species etc? Coming into effect 1 Oct 2017? Option 3 Suggest the same thing but not bringing in Commercial Vessels until 1 Oct 2018. The template only allows the selection of 'one' option??? If MPI or Govt has no the ability to monitor commercial fishing any other way [i.e. failure of human observers] then electronic observation is the only alternative. From past experience and known examples of commercial fishing of law bending or breaking and the general conduct of humans [out-sight and out of-mind behavior] commercial fishers [and all fishers] can/will attempt to get advantage over anyone [law enforcers] that tries to contain or control their lawless activities.

That is why we have such a comprehensive legal system. If the system of enforcing the laws of the land [or controlling of lawless behavior, in this case of Commercial fishing] then this may require electronic monitoring, [IEMRS], asap, as nothing else seems to have worked? If it is very important for law enforcement of our Fishing Industry now and in the future, [and the rest of the country feels

it is] then it must be made to work? We, the People, have entrusted our leaders [Govt] through MPI to do this. Make IEMRS work. Get on with it!

Page 21

General questions

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Yes, IEMRS could bring the Commercial/Customary Fishing Sector to heal. IEMRS has got to work or the fishing as an industry is in a "sunset phase" Without some law enforcement system, the small self employed owner/operator will eventually be cleared from the industry by the corporate 'potentially multi-national' player. . With out CCTV/GPS type technology [IEMRS] monitoring of the Commercial Fishing Enterprises, will identify corrupt practices that is endangering the whole Fishery These modern day "pirates" of the high-seas may need some "gun-boat" diplomacy to settle things down. We have a fleet of Navy Patrol boats [gun-boats] hiding in Devonport Naval Base , too undermanned to go to sea, even in our coastal waters. The least we can do is control what happens within our territorial waters. If we can not do that, then the resource we can control will be lost. The 1st thing to do; is get our own house in order, by dealing to our own "renegade " of our Industry They may not like it, as they have been allowed to do what they like for too long ,in our current politically correct world. Irrespective of the UN, we must show to the rest of the world we have a Law and Order System that works. This will go a long way to give NZ some credibility. The markets for our products will fetch a premium and our 'sustainable' fisheries will be the envy of the rest of the world. Our Fisheries will be protected, our products will be sort after.

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

This is not 'rocket-science' If the Quota Holders want to catch fish, the legal holders of a Commercial/ Customary License [Quota Holders] then the conditions of the contract, must include IEMRS on all Commercial Fishing Vessels, owned or Leased, over 10m. Otherwise they would be classed as Recreational fisher and be unable to 'sell' their 'catch', like the law dictates today. This includes Customary Vessels that fish for 'commercial gain'. These must be over the length of a 1840 fishing waka. [20 m], OR be classed as a recreational fisher and be unable to "sell' their de unable to "

Page 22

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catcheffort reporting?

There is no reason for MPI to verify "catch effort" to achieve what? How much to pay the crew, how hard they work, how many hours they or the skippers work, how anybody is going to reward them? Or are they all going to be on some kind of benefit??? EM will only give them, the fishing vessels some kind of "catch" record, why they 'high-grade' why they don't want to catch non-target or various species that have a lesser monetary reward. Why they think they can break the laws, or make their own! What they do with under-size fish, juveniles, by-catch, why they catch them and all the repercussion this sends through whole industry and general public, now and in the future. The waste that trawlers inflict on the resource and how that could be avoided. If the is no record, and most of the Commercial/Customary Sector want 'there not to be' then nothing will change..... and the world will be a worse place?

Page 25

Monitoring, evaluation and review

What do you think should be monitored? To whom should the results be reported?

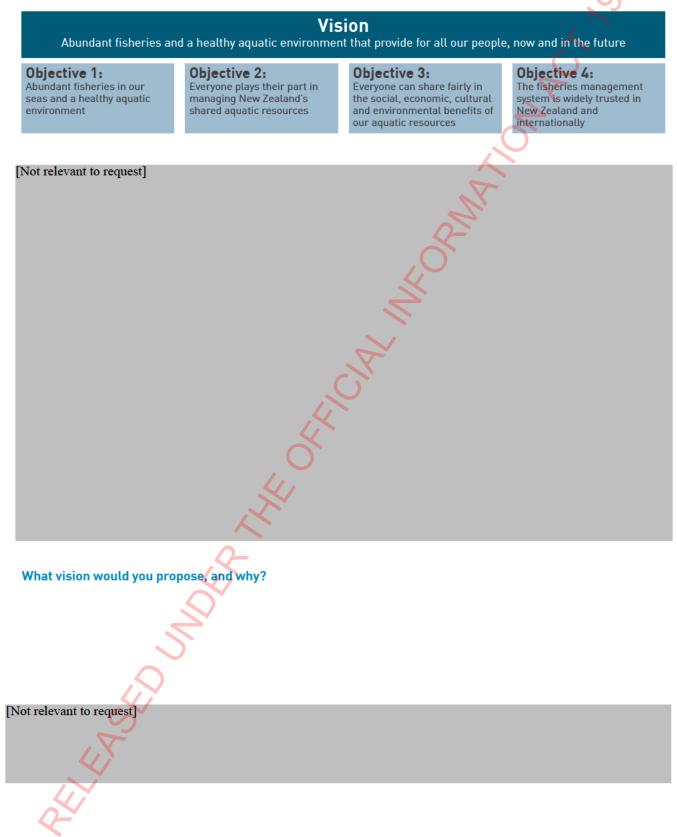
The 'Catch' levels, the Species, the Sizes, the methods of landing, Trawl/Netting or Long-line., Where, When, Particularly inside the Coastal Strip [i.e. inside 50m bottom contour or outside 50 m, or inside the 100 m bottom contour, or outside the 100m bottom zone] or where ever the coastal species collect in large spawning masses of varying ages and species. These are vital information perimeters required to stabilize the NZ Fisheries. That information has to be known, reported and monitored. EIMRS must be installed and operating whenever vessels target these bulk stock. All reports should be tabled with MPI, the Govt of the day, and be open to public scrutiny, in real-time [asap] Not in 2-3 yrs after the damage is done. The Commercial/Customary Sector is not going to like this, and claim 'commercial sensitivity'. This is not a good reason to be secretive, or covert, of a wild fishery resource, that is on the brink of 'gross-exploitation' to the brink of extinction.

Commercial/Customary Sector does not realize the damage it is doingto the 'in-shore' fisheries with its 'off-shore'......OR maybe it does? With the modern technology, of Sonar,GPS/Plotting,and Power-Trawling......and Mankind's competitive Corporate, monopolist drive to be the 1st and the best at anything. Its a good intention but must be moderated or the industry will kill itself and every other living creature it mixes with. We believe this is why IEMRS has been so reluctantly adopted by the Commercial/Customary Sector. And this is why it is most needed?

General questions: Volume I

What will success look like in the future fisheries management system?

Our proposed long-term vision and objectives are as follows:



Volume II: The Fisheries Management System Review

Strategic priority: Maximising value from our fisheries

Address discarding of fish

Tighter regulatory controls to manage discards

[Not relevant to request]

Would you like to comment?

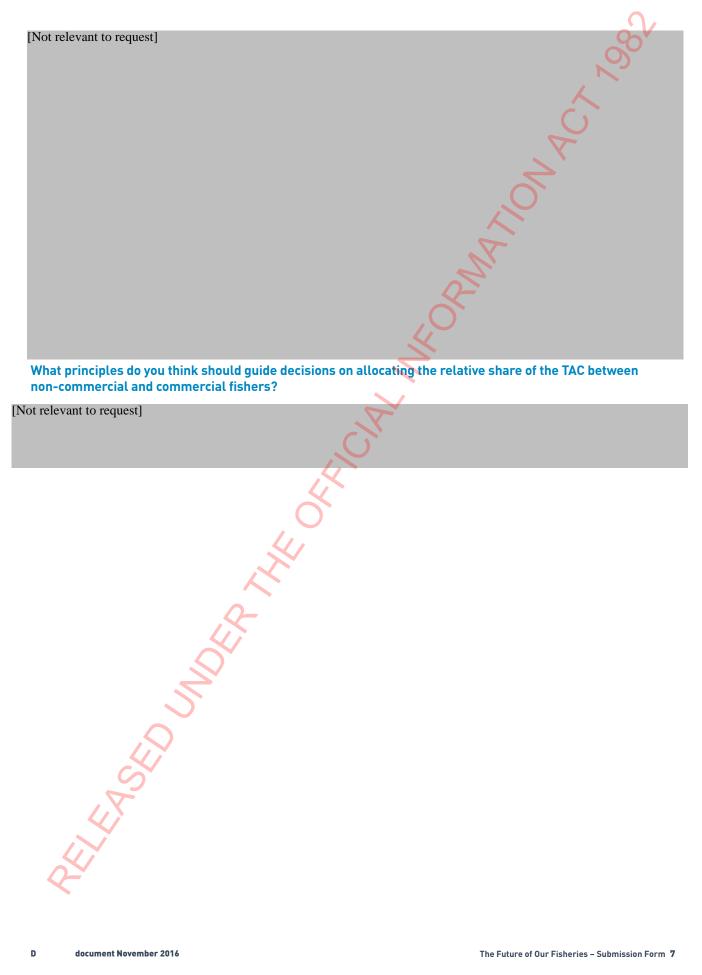
[Not relevant to request]

What measures do you think would help in discouraging catches of small fish? Is minimum legal size needed?



Maximise the value of our shared fisheries

Managing fish stocks for increased abundance.



Monitoring fisheries at finer spatial scale: Effective fisheries management takes place at a sub-QMA level.

| Do you agree that m than the current qu | | | s should take place | e at a finer geographical scale |
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| [Not relevant to request] | | | X III | |
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Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

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| Whether the technod 'paper-tiger' b/c of the The ownership of, " If the Govt makes the MPI was created to | he way it was setup. Trident" is like arrang he rules, Its called Go enforce them. assing' that been goin | by the commercial flee ging for a 'fox to look verning the Country N | after the hen-house.' | t has already proved to be a the state of th | |
| Problem de | efinition how we have define | ed the problem? | | | |
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| Strongly disagree | Disagree | Neither | Agree | Strongly agree | |
| Would you like to oproblem? | comment? For insta | nce, what evidence | should we examine | to inform further analys | is of the |
| You've all walked a | round the "elephant in | n the room"? | | | |
| It is clear, so far tha | t what evidence has b | been gathered has expo | osed the commercial | Sector to Credibility and Co | ensor. |

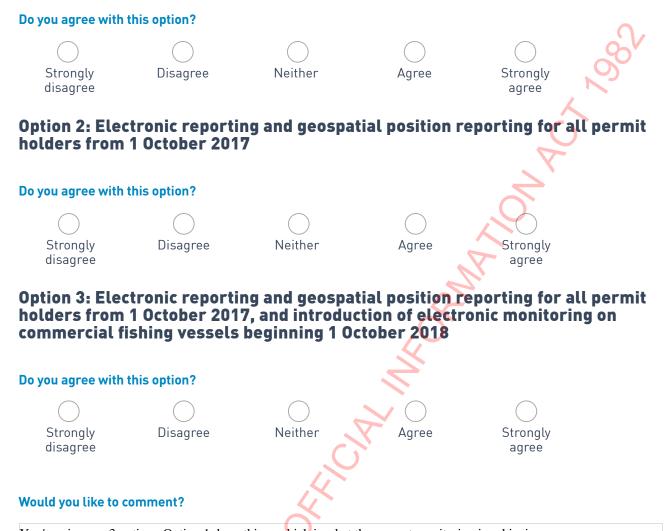
Why the he Govt is fearful of the knowledge they have, and why MPI is 'toothless' to act is unbelievable.

It is almost if Govt/MPI do not want to know what happening to our Fisheries.

Objectives



Option 1: Current state



You've given us 3 option . Option 1 do nothing ,which is what the current monitoring is achieving. Option 2. applies to only 'permit holders' which we can only assume is all Fishing that operate under the QMS? Or does it mean all Commercial/Customary and Non Commercial and/or Recreation Fishers of all species etc? Coming into effect 1 Oct 2017?

Option 3 Suggest the same thing but not bringing in Commercial Vessels until 1 Oct 2018. The template only allows the selection of 'one' option???

If MPI or Govt has no the ability to monitor commercial fishing any other way [i.e. failure of human observers] then electronic observation is the only alternative. From past experience and known examples of commercial fishing of law

20 Ministry for Primary Industries

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Yes, IEMRS could bring the Commercial/Customary Fishing Sector to heal.

IEMRS has got to work or the fishing as an industry is in a "sunset phase"

Without some law enforcement system, the small self employed owner/operator will eventually be cleared from the industry by the corporate 'potentially multi-national' player.

With out CCTV/GPS type technology [IEMRS] monitoring of the Commercial Fishing Enterprises, will identify corrupt practices that is endangering the whole Fishery

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

This is not 'rocket-science'

If the Quota Holders want to catch fish, the legal holders of a Commercial/ Customary License [Quota Holders] then the conditions of the contract, must include IEMRS on all Commercial Fishing Vessels, owned or Leased, over 10m.

Otherwise they would be classed as Recreational fisher and be unable to 'sell' their 'catch', like the law dictates today.

This includes Customary Vessels that fish for 'commercial gain'. These must be over the length of a 1840 fishing waka. [20 m], OR be classed as a recreational fisher and be unable to "sell' their 'catch" for monetary gain, i.e. non-commercial

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

There would be a string a mile long of the reasons why they would not like EM. or IEMRS.

Just look at the Lawlessness that exists on the International Fishing Fleets the world over. The destruction of the major Fisheries the world over..... why? Simply over-fishing on a grand scale by Lawless Operators. e.g.. The Nth Atlantic Cod destruction. The Southern Blue Fin Tuna, it goes on.

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catch-effort reporting?

There is no reason for MPI to verify "catch effort" to achieve what?

How much to pay the crew, how hard they work, how many hours they or the skippers work, how anybody is going to reward them? Or are they all going to be on some kind of benefit???

EM will only give them, the fishing vessels some kind of "catch" record, why they 'high-grade' why they don't want to catch non-target or various species that have a lesser monetary reward. Why they think they can break the laws, or make their own!

What they do with under-size fish, juveniles, by-catch, why they catch them and all the repercussion this sends through whole industry and general public, now and in the future.

The waste that trawlers inflict on the resource and how that could be avoided. If the is no record, and most of the

Permit holders

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

I am not a commercial fisher, I am not a permit holder. I do not make money out of fishing. My fishing cost me money [\$10-\$20000.0 incl GST/ yr] I do contribute to the \$1-2 billion of NZ's annual GDP that recreational fishing generates.

Do you operate this technology on your own behalf, or as an input into someone else's operations?

| No | | |
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If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

| hat issues do you currently have with ER? | |
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What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

As a member of the public, I want to know the Commercial/Customary fishing sector is not 'watched' more carefully?

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

| N/A | | |
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How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

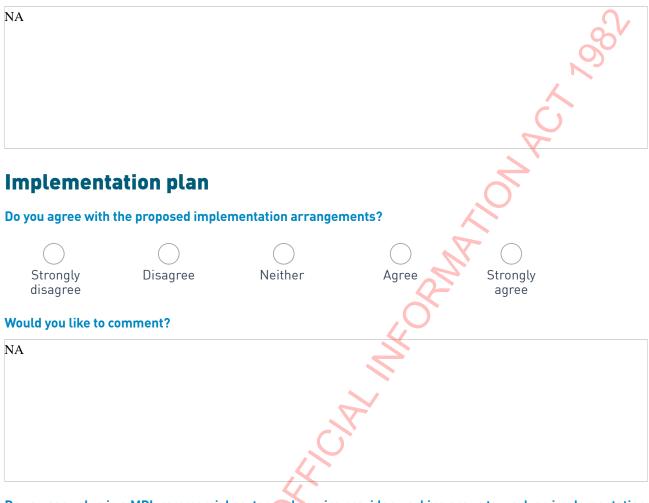
I can tell you, MPI;

That all the fish I catch, [any day], where, what species, their over-all length, how many, how many under-size I 'high-graded', and whether they were alive when placed back in the water. This did not require an IEMRS, just old-fashion honesty.

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Licensed fish receivers

What problems do you experience with landing data?



Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?

| YES | X | |
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What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

Make A LAW that works, and support a GOVT and Legal System that has the power to make the Law work.

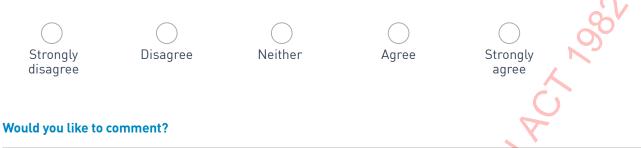
Whose running NZ? The Commercial/Customary Fishing Ind, or the People of NZ?

Monitoring, evaluation and review

| Do you agree with | the proposed monit | toring, evaluation an | d review arrangen | nents? | 0. |
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| Strongly disagree | Disagree | Neither | Agree | Strongly agree | 2 |
| Would you like to c | comment? | | | | |
| - | | ust he continues and a | maning MDL is deali | ing with on Industry | withot works |
| neither. It is importa | int for the industry's f | ust be continues and o uture and the surviva M/IEMRS] is for its o | l of our wild fisherie | s that the Industria | l Sector is |
| The information has | to be open to the Pub | blic. | | NO. | |
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| The 'Catch' levels, th | he Species, the Sizes, | the methods of landin | g, Trawl/Netting or I | Long-line., Where, | When, |
| | | nside 50m bottom con c] or where ever the co | | | |
| These are vital infor | mation perimeters rec | uired to stabilize the linstalled and operating | Z Fisheries. That in | nformation has to be | e known, |
| reported and monito | fied. Enviks must be | instaned and operating | s whenever vessels ta | arget these bulk sto | CK. |
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Risks

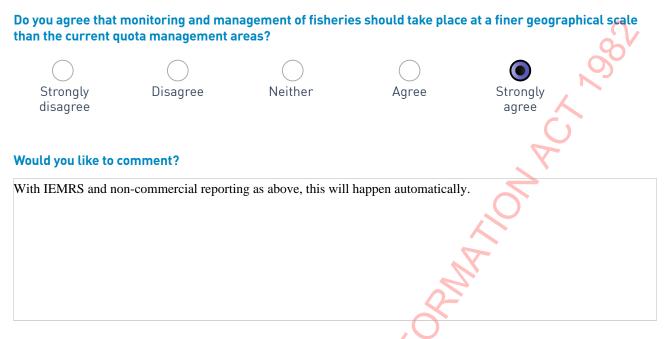
Do you agree with the EITT identified risks?



With careful monitoring of those Vessels [on the scheme of Trawl-Net 'testing'], MPI knows the 'risks' and the wastage that can arise, then provided they are doing the job of monitoring, have the tools [IEMRS/EM] to make the corrections and shut-down the 'testing', if the ideals are not being met, then the EITT is workable.

4ASER HALL

Monitoring fisheries at finer spatial scale: Effective fisheries management takes place at a sub-QMA level.



Who should contribute to the additional costs associated with monitoring and managing at finer geographical scales?

Monitoring with IEMRS should be less costly for the commercial sector, after the initial set-up costs for the technology and any saving could be reflected in annual levies.

For the non-commercial sector, take the costs from the annual licence fee suggested earlier.

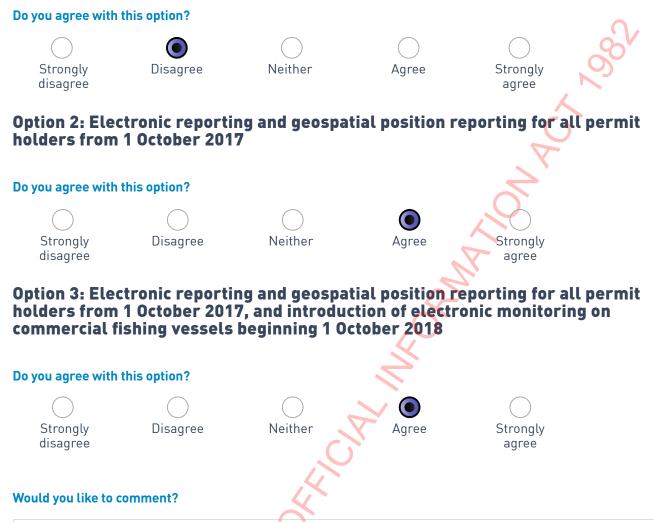
Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

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| Current sta | ite | | | | |
| Do you agree with | how we have defin | ed the current state | in relation to moni | toring and reporting? | |
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| Problem de Do you agree with | efinition how we have defin | ed the problem? | | | |
| Strongly disagree | Disagree | Neither | O Agree | Strongly agree | |
| Would you like to o problem? | comment? For insta | ance, what evidence | should we examine | e to inform further anal | ysis of the |
| I agree with this, jus | st two buttons came of | on at once. | | | |

Objectives



Option 1: Current state



Further discussion needs to be had with operators. Such as privacy and the range of cameras on the vessel - no person would agree to install cameras in their home to be monitored by strangers with no surety of confidentiality of data. Fishing vessels are homes for crew while at sea and consideration needs to be made for normal privacy.

| J. | |
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General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

Small vessels may have insufficient power supply and inadequate weather proofing; they may become over capitalised and uneconomic given the initial and ongoing costs.

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catch-effort reporting?

Electronic reporting of catch and positioning is not so expensive and could be accepted. If MPI know where a vessel is fishing and returning its not difficult to meet them and verify catch. A drone could be sent on random trips to discourage discarding or protected species interaction (US military use the technology)

Permit holders What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

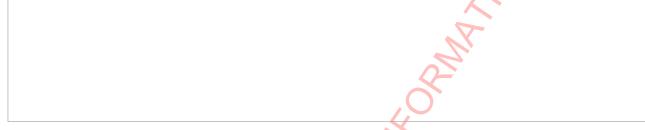
Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

What issues do you currently have with ER?

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?



Commercial stakeholder organisations (CSOs)

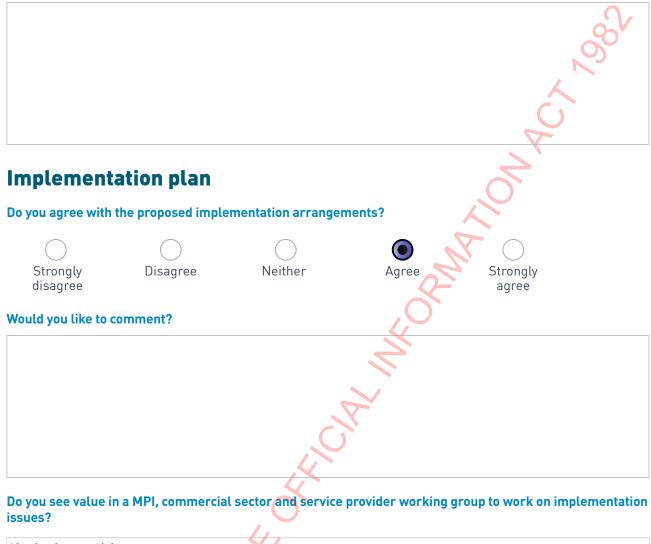
If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

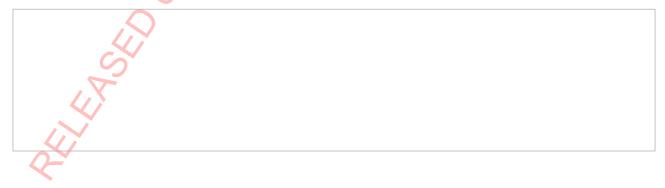
Licensed fish receivers

What problems do you experience with landing data?



| Absolutely essential | |
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What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?



Monitoring, evaluation and review

| Do you agree with the proposed monitoring, evaluation and review arrangements? | | | | | |
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| Strongly disagree | Disagree | Neither | Agree | Strongly agree | |
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What do you think should be monitored? To whom should the results be reported?

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Volume III: Integrated Electronic Monitory and Reporting System (IEMRS)

Current state

Do you agree with how we have defined the current state in relation to monitoring and reporting (please tick only one box)?

| Strongly disagree | |
|-------------------|--|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Would you like to comment? For instance, how would you describe the current system? What other factors should be considered?

Problem definition

Do you agree with how we have defined the problem (please tick only one box)?

| Strongly disagree | |
|-------------------|--|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |
| | |

Would you like to comment? For instance, what evidence should we examine to inform further analysis of the problem?



| Objectives | | | 97 |
|---|------------------------------|---------------------------------------|--------------------------|
| Do you agree with obje | ctives of IEMRS (please tick | only one box)? | 8 |
| Strongly disagree Disagree Neither Agree Strongly Agree | | 5 | X U K |
| Would you like to comr | nent? | | |
| | | A A A A A A A A A A A A A A A A A A A | |
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| Discussion document Novembe | r 2016 | The Euture of our Eicher | ies – Submission Form 19 |

Option 1: Current state

Do you agree with this option (please tick only one box)?

| Strongly disagree | \boxtimes |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Option 2: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017

Do you agree with this option?

| Strongly disagree | \boxtimes |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | \boxtimes |

Option 3: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017, and introduction of electronic monitoring on commercial fishing vessels beginning 1 October 2018

Do you agree with this option (please tick only one box)?

Strongly disagree \square Disagree Neither Agree $\mathbf{\nabla}$ \boxtimes Strongly Agree

Would you like to comment?

This is the critical aspect of my submission, in that I strongly support the introduction of strong, on vessel monitoring systems that can support the industry to deliver on customer and societal expectations. The current system is very broken, and a source of anger in the wider community.

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

Discussion document November 2016

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catcheffort reporting?

Permit holders

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

What issues do you currently have with ER?

22 Ministry for Primary Industries

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Discussion document November 2016

Licensed fish receivers

Would problems do you experience with landing data?

Implementation plan

Do you agree with the proposed implementation arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|--|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Would you like to comment?

Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

Monitoring, evaluation and review

Do you agree with the proposed monitoring, evaluation and review arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|--|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Would you like to comment?

These need to be very strong.

PT. What do you think should be monitored? To whom should the results be reported?

2 Million

[Not relevant to request] Background: MPI's Objectives and intent;

The Ministry of Primary Industry (MPI) four discussion papers "Future of our Fisheries" outlined three proposals to change management and regulatory arrangements for fisheries and the marine environment. The three projects put forward are:

1. [Not relevant to request]

2. Integrated Electronic Monitoring and Reporting System (IEMRS): Proposed electronic reporting of catch and fishing activities by commercial fishers, monitoring and verification using automated geospatial position reporting and automated on-vessel cameras.

3. [Not relevant to request]

[Not relevant to request]

- 2. Better fisheries information: These proposals include:
- To implement integrated electronic monitoring and reporting system (IEMRS) (Regulatory Change 1, Volume 3): IEMRS in Option 3 is to introduce both electronic and geospatial reporting and electronic monitoring over a 2 year period. This is an important tool to understand what goes on in smaller fishing vessels on which it is hard to put MPI observers. The introduction of IEMRS must not be used as an excuse to reduce observer coverage. It will be essential to ensure that the IEMRS system has transparent analysis and regular auditing using MPI observers. Comparison of black petrel by-catch reporting by MPI observers with information from video monitoring in the snapper and bluenose fishery in the north will be essential to ensure the system does what it is intended to.

| • | [Not relevant to request] | 1 |
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Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

Current state

Do you agree with how we have defined the current state in relation to monitoring and reporting?



Would you like to comment? For instance, how would you describe the current system? What other factors should be considered?

The introduction of IEMRS must not be used as an excuse to reduce current observer coverage. Retaining and expanding at-sea observers is more important than introduction of IEMRS for those vessels that can carry observers. We agree that MPI "Fisheries Observers have been a crucial part of the commercial sector for the last 30 years." We agree that the "conclusion of [past] trials is the EM has application to meet some but not all fisheries monitoring objectives".

Observer information is crucial for stock assessments and the analysis of bycatch and discards, including bycatch of threatened or protected species. Observers provide information to MPI, Research Providers, and to DOC and is reported in some circumstances to working groups and plenaries. DOC produces an annual summary of information provided by observers: MPI should do the same.

Observers independent of industry are also important for high seas information and provide verification for other countries involved in highly migratory fisheries or other high seas or straddling-stock fisheries.

It will be essential to ensure that the IEMRS system has transparent reporting, analysis and regular auditing using MPI observers as controls and comparators to ensure the system works and is providing the information that researchers, enforcement officers and others think it is.

The current research proposal to compare black petrel by-catch reporting by MPI observers and video monitoring in the snapper and bluenose fishery in the north will be essential to ensure the system does what it is intended to do. If IEMRS fails to provide benefits then MPI has to go back to the drawing board on the use of electronic montoring.

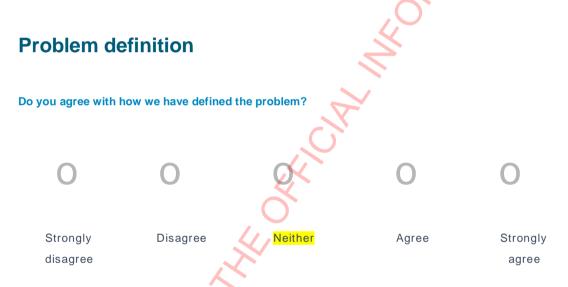
Observers and shed sampling must continue for the integrity of the system, monitoring the effectiveness of IEMRS, and providing a range of additional information which electronic

and IEMRS will not. Such information includes biological samples (eg otoliths, stomach and gonad samples).

The "observer effect" can provide information which is less or greater than that reported by other vessels. Consistent observer coverage ensuring that over several years all vessels in a fleet are monitored, at difference stages during the fishing year, and with sufficient coverage to be representative of the fleet, helps to reduce the "observer effect" bias. This effect shows up under reporting and other flaws in reporting by vessels without observers.

Observer data has provided evidence of mis-reporting. Examples of misreporting include reporting of hake 7 as coming from hake 4, under-reporting of hake (700-1000t/yr), ling (250-400t/yr), and silver warehou bycatch in the west coast hoki fishery (Dunn 2003, Sullivan *et al.*, 2005, and Bremner et al 2009).

There has been a very slow development of IEMRS since it was first trialled in New Zealand over 10 years ago. It is crucial that the system is legally enforceable, transparent in it operation and provides useful and robust information.



Would you like to comment? For instance, what evidence should we examine to inform further analysis of the problem?

Missing from the problem definition for monitoring are:

- information requirements for stock assessments;
- reporting of by-catch and discards particularly for non-quota species;

The discussion of observers is one-sided in considering only costs or current limitations of the existing observer system and not the benefits of observers over any electronic monitoring system. At-sea observers with the addition of shed sampling provides additional information. This includes:

- biological samples both for target species but also bycatch including protected species;
- conversion rates from green-weight to processed product;
- / identification of bycatch species including protected species;
- additional information on non-fish bycatch;
- focused research projects which assist in stock assessments and assessing the

environmental impacts of a fishery, eg cryptic mortality of seabird in trawl fisheries.

These and other monitoring undertaken by at-sea observers cannot be replaced by the IEMRS system. The proposed trial comparing at-sea observers with electronic monitoring to be undertaken in the northern snapper and bluenose fisheries with significant black petrel bycatch, will better assess the benefits and limitations of electronic monitoring.

Adding value should be seen as a secondary objective unless MPI is considering all values of fish including ecological, recreational, customary, and non-market values.

a so feb accuracy and On reporting requirements, there can be clear benefits of electronic versus paper based reporting. This seems a clear case of time-savings, accuracy and efficiency of the reporting

Objectives

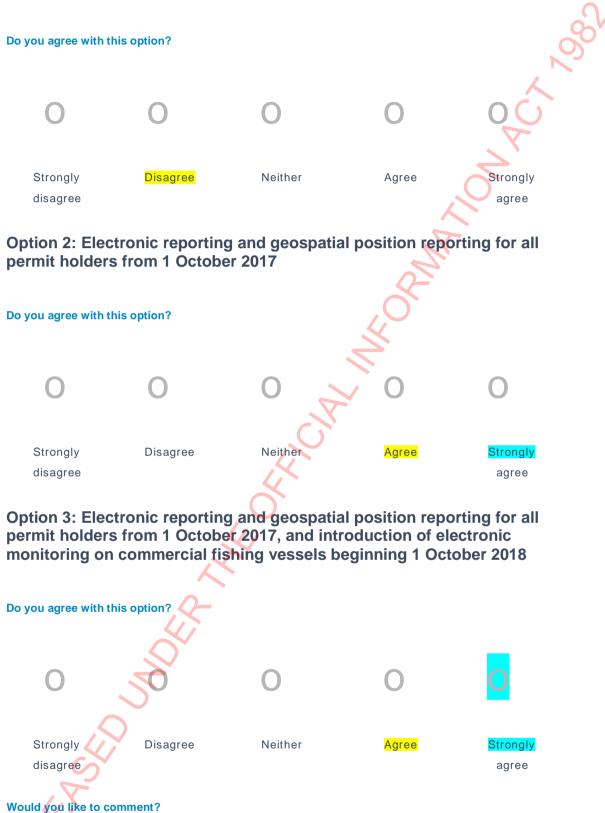


The objectives should include provision of complementary information that can be used to add to the information provided by observers.

Adding value should be a secondary consideration.

IEMRS in Option 3 is to introduce both electronic and geospatial reporting and electronic monitoring over a 2 year period. This is an important tool to understand what goes on in smaller fishing vessels on which it is hard to put MPI observers. The introduction of IEMRS must not be used as an excuse to reduce observer coverage. It will be essential to ensure that the IEMRS system has transparent analysis and regular auditing using MPI observers. Comparison of black petrel by-catch by MPI observers and video monitoring in the snapper and bluenose fishery in the north will be essential to ensure the system does what it is intended to do.

Option 1: Current state



would you like to comment?

Option 3 is supported as ECO's preferred option.

Non-regulatory options are clearly a non-starter as it does not ensure 100% coverage, raises legal questions over ownership of the data, and enforceability of the information.

Option 3 is the only option that provides both electronic reporting and electronic monitoring of the fishery. This includes the development of monitoring plans which should include at sea observation, shed sampling, as well as the electronic monitoring system.

<text><text><text> Monitoring plans should include regular comparison of IEMRS and at sea observer results. Further analysis is needed to determine the level of representative catch monitored by at-sea

General questions

Are there other options, not described in this section, which should be considered? If so, what are the options?

Option 1 would not provide any additional information and would not meet the implementation elements and objectives and goals of the National Plan of Action on Seabirds and the National Plan of Action on Sharks.

Option 2 only improves on the electronic reporting of catch and position of vessel, it does not deal with the monitoring of fisheries where it is difficult or near impossible to put an observer on board a vessel.

Option 3 is only option that provides an improvement on reporting catches, where those catches took place and a verification system (by cameras) of the catches, bycatches, protected species catch, and other vessel activity.

Observers will still be needed on a representative portion of the fleet to compare with the IEMRS report, undertake biological monitoring and sampling required for stock assessment, bycatch or environmental monitoring.

Reduction in observer at-sea monitoring is opposed by ECO., Greater observer coverage has benefits to the management of the fishery, to assessing bycatch, and to determining the level of protected species bycatch and trends in catches.

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

The key benefit is providing information to better ensure that the fishery is sustainable but compliance reasons are also important.

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out? What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

There needs to be a clear implementation plan which identifies the priority fisheries for IEMRS:- eg the snapper and bluenose fisheries.

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catch-effort reporting?

IEMRS systems should be practical on all vessels. Different vessel sizes and gear configurations may determine whether only one or two or more cameras are required for monitoring a fishery. One camera may be all that is required on a small vessel but further monitoring and comparison trails are likely to be needed.

Permit holders – N/A for ECO

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

What issues do you currently have with ER?

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Licensed fish receivers

What problems do you experience with landing data?

Implementation plan

Do you agree with the proposed implementation arrangements?



Would you like to comment?

Agree that regulation changes are needed to enable mandatory installation and maintenance and the use and transmission of this data. It is crucial that MPI is the owner of the ER and GPR data and EM imagery.

The information must be available to research providers in assessments, assessing the impact of a fishery, protected species bycatch etc.

It is essential for public confidence in the system that the introduction of implementation period is only for a relatively short period eg two years and that it is in place after that.

Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?

While there may need to be some collaboration it is essential for the transparency of the process to ensure there is independent outside engagement and that all stakeholders are able to participate. The risk otherwise is that the Ministry reverts to its state of industry capture of the regulators.

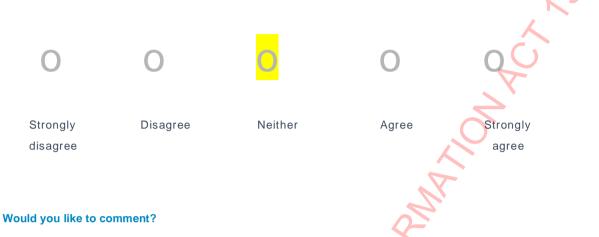
Service provision should ensure there are no conflicts of interest and that provision should be independent of the industry.

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

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Monitoring, evaluation and review

Do you agree with the proposed monitoring, evaluation and review arrangements?



If it is effective, monitoring should include the level of protected species bycatch, the level of fish and non-fish bycatch, the level of VME encounters and captures. The current project to assess whether cameras can monitor black petrel bycatch in the snapper and bluenose fisheries, and comparing results with observers on the same vessels, is an essential part of this process.

Similar comparisons will need to be researched in other fisheries.

A review process and assessment in the order of every four years is required to ensure that the system is working effectively and providing useful and accurate results.

What do you think should be monitored? To whom should the results be reported?

If it is effective, monitoring should include the level of protected species bycatch, the level of fish and non-fish bycatch, the level of VME captures. The current project to assess whether cameras can monitor black petrel bycatch in the snapper and bluenose fisheries, and comparing results with observers on the same vessels, is an essential part of this process.

Similar comparison will need to be researched in other fisheries.

All monitoring should be subject to the Official Information Act and not denied by virtue of confidentiality designations.

Risks

[Not relevant to request]

Would you like to comment? There are other risks that need to be managed as part of any decision process. These include: Conflicts of interests eg between innovator, FishServe, fishing companies, and • IEMRS systems; [Not relevant to request] • i[Not relevant to request] L

Submission on the Future of our Fisheries

| | | change in fishery management. |
|-------------------------------|-----------------------------------|-------------------------------|
| Submission on the Fut | ture of our Fisheries | |
| Submitter: Brett Gilmore, s 9 | D(2)(a) | |
| Thanks for the opportunity t | o submit on what is a significant | change in fishery management. |
| Agree/Disagree/comment | Section/page/book | View |
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| | | [Not relevant to request] |
| - | | |
| | | |
| Agree | IEMRS, p.15, vol 4 | This technology is fantastic and will be a great source of information in real time. The objectives |
| Agree in part | Option 3, p.23, vol 4 | look good. This seems appropriate but there is no end date for all to have the EM technology. There must be an end date otherwise it will be abused. |
| [Not relevant to | | |
| request] | | |
| | | |
| s 9(2)(a) | | |
| | INDER | |
| Brett Gilmore | ASED | |
| \langle | FLEASED | |

What measures do you think would help in discouraging catches of small fish? Is minimum legal size needed?

Cameras and gps on all boats.

<text> With open signal to the public at all times.

Volume III: Integrated Electronic Monitory and Reporting System (IEMRS)

Current state

Do you agree with how we have defined the current state in relation to monitoring and reporting (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |
| | |

Would you like to comment? For instance, how would you describe the current system? What other factors should be considered?

The current system seems to have some systems in place to prosecute fishers that break the rules. However it seems that MPI is not serious about prosecuting miscreants. Take for example the MPI decision maker who approved sub standard cameras to be fitted to supposedly inform on the rule breakers needs to be disciplined themselves. Additionally the decision not to fit real time GPS systems to all commercial fishing vessels is criminally negligent in my opinion.

| Problem definition |
|---|
| |
| Do you agree with how we have defined the problem (please tick only one box)? |
| |
| Strongly disagree x |
| Disagree |
| Neither 🗌 |
| Agree |
| Strongly Agree |
| |
| Would youlike to comment? For instance, what evidence should we examine to inform further |
| analysis of the problem? |
| |

| | | <u>_</u> |
|---|------------------------------------|-----------|
| Do you agree with obj | ectives of IEMRS (please tick only | one box)? |
| Strongly disagree Disagree Neither Agree Strongly Agree | □ □ □ X | A A A |
| Would you like to com | ment? | |
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Option 1: Current state

Do you agree with this option (please tick only one box)?

| Strongly disagree | |
|-------------------|----|
| Disagree | |
| Neither | xП |
| Agree | |
| Strongly Agree | |

Option 2: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017

Do you agree with this option?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | \boxtimes |

Option 3: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017, and introduction of electronic monitoring on commercial fishing vessels beginning 1 October 2018

Do you agree with this option (please tick only one box)?

 \square

Strongly disagree Disagree Neither Agree Strongly Agree

Would you like to comment?

Why does it have to take so long. All commercial vessels 01/01/2017. Stop mucking around.

Or stop all commercial fishing till you have got your act together.

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

No commercial fishing till all monitoring is in place and working.

No phase in time.

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

Discussion document November 2016

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catcheffort reporting?

Permit holders

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

What issues do you currently have with ER?

22 Ministry for Primary Industries

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Discussion document November 2016

Licensed fish receivers

Would problems do you experience with landing data?

Implementation plan

Do you agree with the proposed implementation arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | \boxtimes |
| Neither | |
| Agree | |
| Strongly Agree | |

Would you like to comment?

I don't see the need for a phase in time.

These technologies have been around for many years now, why has it taken so long.

| Do you see value in a MPI, | commercial | sector and | service | provider | working | group to | work on |
|----------------------------|------------|------------|---------|----------|---------|----------|---------|
| implementation issues? | 0- | | | | | | |

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

Monitoring, evaluation and review

Do you agree with the proposed monitoring, evaluation and review arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|---|
| Disagree | х |
| Neither | |
| Agree | |
| Strongly Agree | |

Would you like to comment?

What do you think should be monitored? To whom should the results be reported?

The public of New Zealand.

As well as independent agencies.

MPI cannot be trusted with information it considers sensitive.

Discussion document November 2016

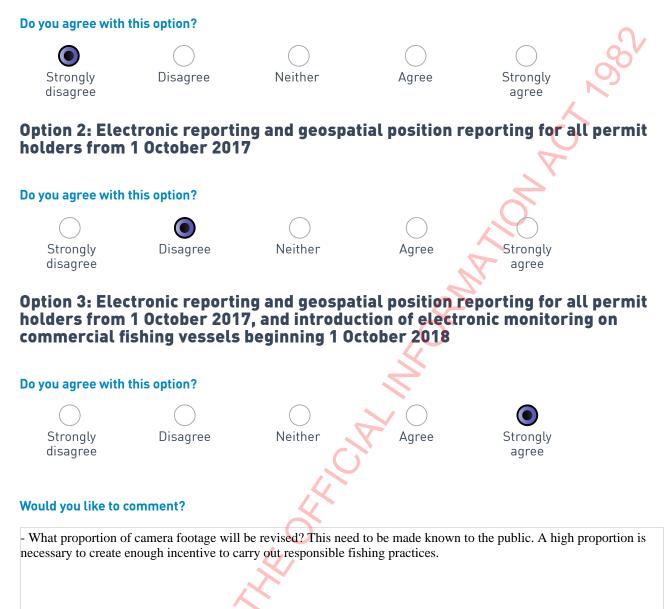
Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

| Current sta | ate | | | | 20V |
|---|---|----------------------------|---------------------|-----------------------------------|-------------|
| Do you agree with | how we have define | ed the current state | in relation to moni | toring and reporting? | |
| Strongly disagree | O Disagree | Neither | Agree | Strongly agree | |
| Would you like to should be conside | | ince, how would you | describe the curre | ent system? What other | factors |
| - The current syster | n is biased toward the | interests of the fishin | g industry. | | |
| Strongly | efinition how we have define Disagree | ed the problem? Neither | Agree | Strongly | |
| disagree Would you like to problem? | comment? For insta | ince, what evidence | should we examin | agree e to inform further anal | ysis of the |
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Objectives



Option 1: Current state



General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

- Charter fishing boats should be managed under commercial fisheries, not recreational, due to the large amounts of fish caught and the economic benefit of such businesses.

- When TAC or TACC are exceeded, the exceeded amount should always be discounted from the TAC from the following year's TAC or TACC.

- A precautionary principle needs to be observed due to the many unknowns around fisheries management and stock assessment, and consequently reduce the TAC/TACC across many fish stocks - an independent advisory council should advise or make the decisions in this regard.

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

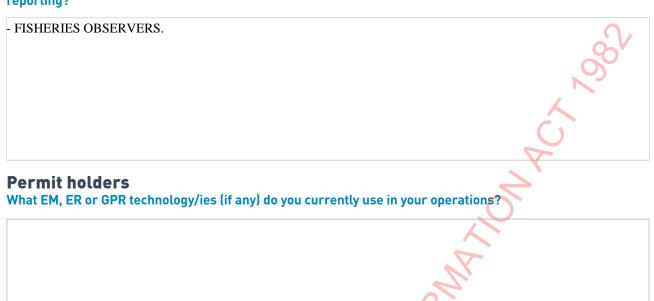
- There should ALWAYS be consequences for the fisheries that breach the legislations - otherwise what is the point of EM, ER, GPR?

- A high proportion of EM footage should be revised for it to be meaningful.

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catch-effort reporting?



Do you operate this technology on your own behalf, or as an input into someone else's operations?

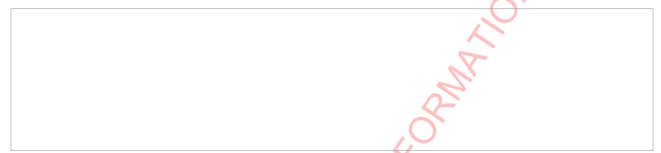
If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

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What issues do you currently have with ER?

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?



Commercial stakeholder organisations (CSOs)

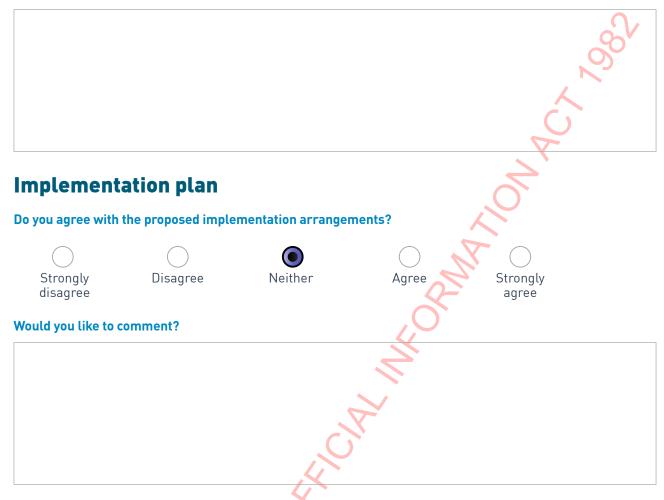
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Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Licensed fish receivers

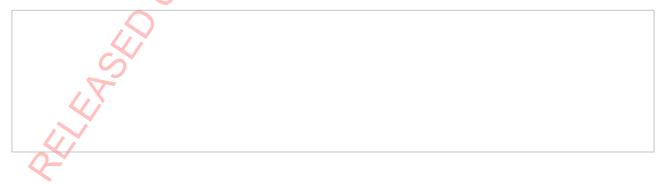
What problems do you experience with landing data?



Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?



What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?



Monitoring, evaluation and review

| Do you agree with the proposed monitoring, evaluation and review arrangements? | | | | | | |
|--|------------|------------|-------|-------------------|----------|--|
| \bigcirc | \bigcirc | \bigcirc | ۲ | \bigcirc | 20V | |
| Strongly disagree | Disagree | Neither | Agree | Strongly agree | | |
| Would you like to o | comment? | | | Ć | <u>)</u> | |
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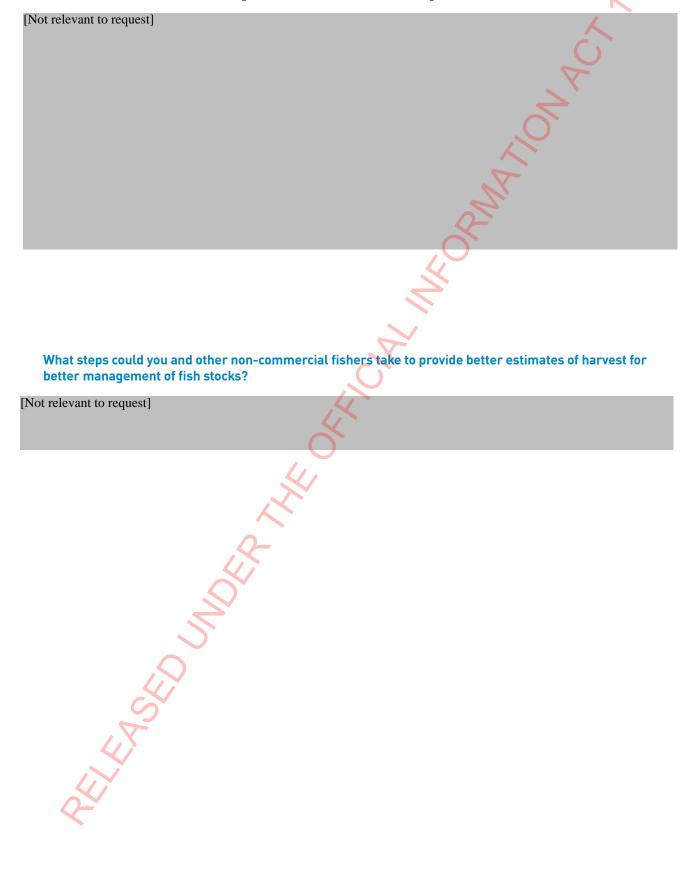
What do you think should be monitored? To whom should the results be reported?

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Key area: Better Fisheries Information

Option 2: Gather more information to support decision-making and valueadding

Monitoring of non-commercial fisheries (recreational and customary fisheries): MPI and stakeholders have access to information of non-commercial fishing activities at a QMA level and a range of finer scales.



Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

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Would you like to comment? For instance, what evidence should we examine to inform further analysis of the problem?

I think if it goes to electronic monitoring, there is an issue with interlectual property because it is not secure. And MPI cannot gurantee security.

Also internet or phone coverage is questionable at best around NZ; so that would mean that every vessel would have to install satalite communications, which is not financially fesible for the majority of small operators. Thirdly, if the reporting cannot be performed on a phone or tablet then it is inefficient. If you are trying to run an

online system that doesn't work on mobile devices it is an out dated system!!

Objectives

Do you agree with the objectives of IEMRS?



Disagree

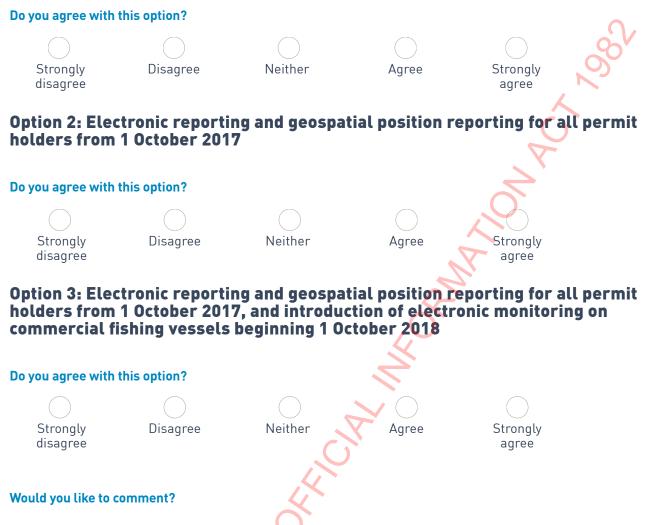
Neither

Agree

Strongly



Option 1: Current state



I strongly disagree with all electronic monitoring due to the interlectual property which has taken 30+ years to build up, being available to the general public.

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Of the 3 options you have described, staying as is, is the only feisable option for all small to mid sized operators.

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

None at all. There is no benefite to the small to mid sized commercial operators; it will infact put many out of business as it is too expensive to get into. If it does go ahead then the cameras and montioring equipment need to be supplied to each vessel by MPI, as they have had the financial benefit of having sold most of the Crown quota to the commercial fishermen.

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

It shouldn't be implemented until all issues and problems that are relating to interlectual property are solved and the montoring equipment is affordable available.

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

Financial in terms of the costs of the equipment and to their ability to continue to provide for their families (especially any who are only part-time fishing) and security of interlectual property (all marks that have been recorded over the last 30+ years).

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catch-effort reporting?

Same way as they currently do and perform random vessel inspections, and balances against licenced fish reciever returns.

Permit holders What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

Nil - we would use electronic CELR and MHR if it was available and user friendly, for use on phones and tablets; with allowanced for being out of phone and data range during a trip.

Do you operate this technology on your own behalf, or as an input into someone else's operations?

On our own behalf

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

No

What issues do you currently have with ER?

It not been user friendly, needs simple, straight forward booklet to explain system login, and data reporting. Many fishermen are not technology savvy.



What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

Simple text to say that daily return is received and email detailing the monthly returns.

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

No

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

There is no such thing as confidential, especially with electronic technology and larg organisations!!

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

N/A

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

No

Licensed fish receivers

What problems do you experience with landing data?

We don't expirence any, simply fill out the paperwork and unload the fish.

Implementation plan

Do you agree with the proposed implementation arrangements?



Disagree

Neither

er

Agree

Strongly agree

Would you like to comment?

Strongly Disagree.

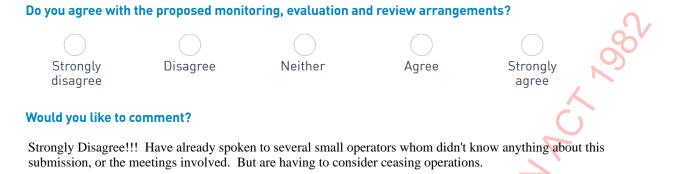
Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?

No

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

COST !!!!! It's too expensive to be utilised by any small to mid sized operators !!!

Monitoring, evaluation and review



What do you think should be monitored? To whom should the results be reported?

Section of the sectio

If you are going to monitor fishing it needs to be all fishing vessels, commercial, charter and recreational. Realistically the monitoring you are talking about can only work on the factory or larger trawl boats. The inshore fleets are struggling to make a living as it is, without the extra setup and annual costs of cameras etc.

MPI should be the only recipient of any information collated from fish vessels, unless there are illegal or unsafe activities happening on board.

Key area: Better Fisheries Information

Option 2: Gather more information to support decision-making and valueadding

Monitoring of non-commercial fisheries (recreational and customary fisheries): MPI and stakeholders have access to information of non-commercial fishing activities at a QMA level and a range of finer scales.

[Not relevant to request]

What steps could you and other non-commercial fishers take to provide better estimates of harvest for better management of fish stocks?

[Not relevant to request]

Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

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Objectives

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Disagree

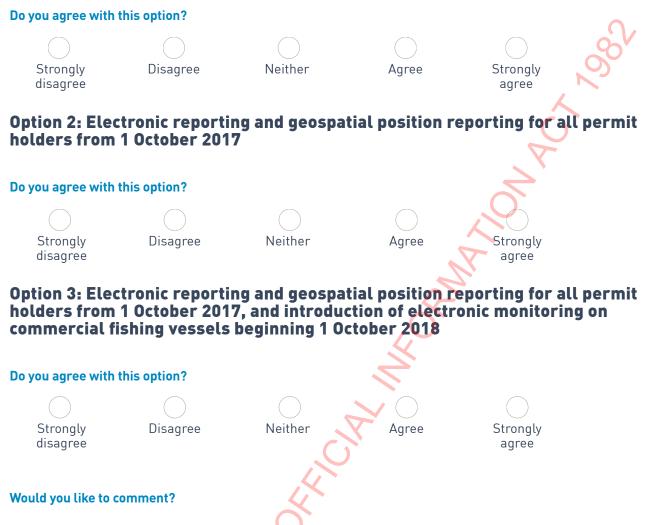
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Agree

Strongly



Option 1: Current state



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No

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Disagree

Neither

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Agree

Strongly agree

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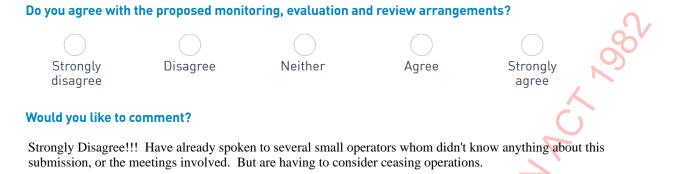
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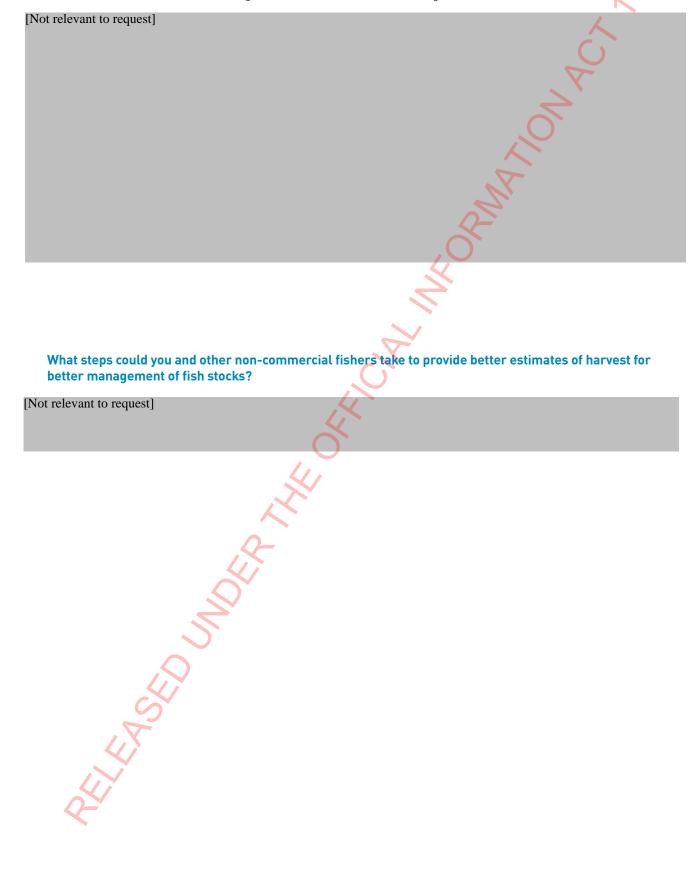
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Disagree

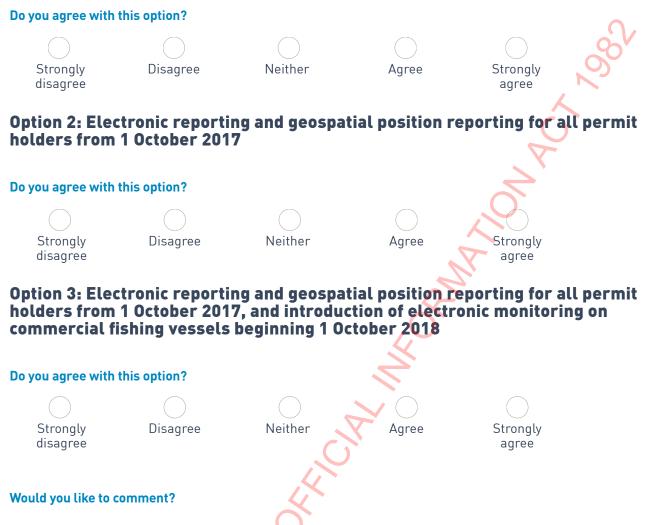
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Commercial stakeholder organisations (CSOs)

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How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

N/A

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

No

Licensed fish receivers

What problems do you experience with landing data?

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Implementation plan

Do you agree with the proposed implementation arrangements?



Disagree

Neither

er

Agree

Strongly agree

Would you like to comment?

Strongly Disagree.

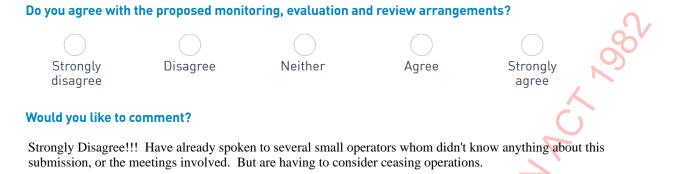
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No

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

COST !!!!! It's too expensive to be utilised by any small to mid sized operators !!!

Monitoring, evaluation and review



What do you think should be monitored? To whom should the results be reported?

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Volume III: Integrated Electronic Monitoring and Reporting System (IEMRS)

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| Strongly disagree | Disagree | Neither | Agree | Strongly agree | |

Would you like to comment? For instance, what evidence should we examine to inform further analysis of the problem?

The video tapes already collected (e.g. in Operation Achilles) should be analysed. This information will be extremely valuable in designing future electronic monitoring, including the proportion of video that would need to be analysed to provide accurate information on fisheries and impacts on protected species. For example, the slight increase in observer coverage in inshore gillnet fisheries is associated with a dramatic increase in the list of species caught. Relatively rarely caught species are likely to be missed altogether when observer coverage (or the proportion of video tape viewed) is low.

In addition, the video footage from fisheries monitoring should be publicly available. At the very least to relevant scientists, and preferably to the public at large. Fisheries are a public resource. The public has a right to know what is

Objectives

Do you agree with the objectives of IEMRS? Strongly Disagree Neither Agree Strongly disagree Would you like to comment? Agree (but the objectives are too narrow):

The introduction of the QMS resulted in a reduction in resources spent on on-the-water policing and monitoring. The proposal to roll out an Integrated Electronic Monitoring and Reporting System (IEMRS), placing video cameras on all fishing vessels shows that MPI acknowledges this problem and is taking steps to address it. However, the proposed electronic monitoring programme is far too narrow in scope. In addition to placing video cameras on vessels, sufficient resources need to be allocated to viewing the video footage. All of the footage, not just a small sample of it. More importantly, the information gathered needs to be acted on. If fisheries offences are documented on video, these need to be followed by prosecutions as recommended in the Heron Report. In addition, cameras are not a substitute for observer

Chille Chiller

JACK LAKE

Option 1: Current state



In addition to placing video cameras on vessels, sufficient resources need to be allocated to viewing the video footage and basing management decisions on the information gathered. For example, if fisheries offences are documented on video, these need to be followed by prosecutions and steps taken to solve the problems documented (e.g. fish dumping or protected species mortality). Observers are needed in addition to video cameras to estimate drop-out of dolphins and other protected species before they come in view of the video cameras.

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Option 4:

Electronic monitoring of all fishing vessels, with observers on at least 25% of vessels to provide ground-truthing of the video data (including estimates of drop out, weights and measurements of fish and other data that can not be collected by video camera).

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

IEMRS will be essential in providing a social licence to operate for the fishery. Fish stocks and other species affected by fishing (including protected species) belong to all New Zealanders. Without assurance that fishing operations are truly selective and sustainable the New Zealand seafood "brand" will lose its credibility.

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

Priorities should be based on risk. The risk is highest to protected species, including threatened, endemic marine mammals and seabirds. Inshore gillnet and trawl fisheries impacting marine mammals should be the highest priority.

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catch-effort reporting?

Fisheries enforcement officers on their own patrol vessel. This is routine in many other countries.

Do you operate this technology on your own behalf, or as an input into someone else's operations?

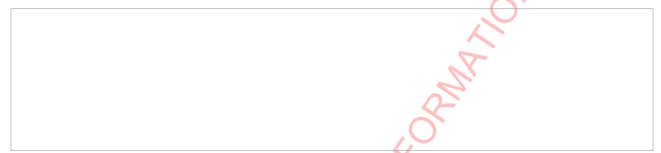
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What issues do you currently have with ER?

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?



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If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Licensed fish receivers

What problems do you experience with landing data?

Implementation plan

Do you agree with the proposed implementation arrangements?



Disagree

Neither

-

Aare

Strongly agree

Would you like to comment?

Disagree:

The proposed implementation is too slow. For example, video camera monitoring is routine overseas and trials in New Zealand since 2003 have shown this is a practical option in our fisheries. It is not clear why MPI is proposing to wait until 2018 to implement this solution.

Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?

No, these issues need to be dealt with by independent experts working for government.

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

Monitoring, evaluation and review

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| Discussion document Nove | mber 2016 | | | The Future of Our Fisherie | es – Submission Form 🏾 |
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Volume III: Integrated Electronic Monitory and Reporting System (IEMRS)

Current state

Do you agree with how we have defined the current state in relation to monitoring and reporting (please tick only one box)?

| Strongly disagree | |
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| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | \boxtimes |

Would you like to comment? For instance, how would you describe the current system? What other factors should be considered?

- Sadly the fishing industry provides too many examples to support a general public view that they cannot be trusted to act within fisheries management regulations.
- Therefore Fish Forever supports all efforts to better monitor commercial fishing activities.
- Given that stock assessments and subsequent TAC decisions are critical for the health of our marine ecosystems and stock abundance affects many groups beyond the fishing sector, Fish Forever fully supports fuller and more timely reporting than we currently have.
- Fish Forever also contends that as the commercial fishing sector is taking a private profit from a public resource then all information related to the catch and effort should belong to the public, held in trust by government agencies, and be available to all those researching fishing effects. Commercial sensitivity should NOT be a reason for CPUE data to be withheld.
- ALL costs must be borne by the commercial operators.

Problem definition

 Do you agree with how we have defined the problem (please tick only one box)?

 Strongly disagree

 Disagree

 Neither

Agree

<text> Would you like to comment? For instance, what evidence should we examine to inform further

Objectives

Do you agree with objectives of IEMRS (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | \boxtimes |

Would you like to comment?

- Fish Forever believe that the fishing sector has not respected the "social licence" • bestowed on them to extract private benefit from our public resource.
- <text> We welcome any effort to restore confidence in this regard.

Option 1: Current state

Do you agree with this option (please tick only one box)?

| Strongly disagree |
|-------------------|
| Disagree |
| Neither |
| Agree |
| Strongly Agree |

Option 2: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017

Do you agree with this option?

| Strongly disagree | \boxtimes |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Option 3: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017, and introduction of electronic monitoring on commercial fishing vessels beginning 1 October 2018

Do you agree with this option (please tick only one box)?

 \square

 \boxtimes

Strongly disagree Disagree Neither Agree Strongly Agree

Would you like to comment?

As above.

Discussion document November 2016

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catcheffort reporting?

Where EM is not practical or cannot provide good coverage of fishing activity, then there should be 100% observer coverage on these vessels, with all cost born by the vessels concerned.

Permit holders

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

What issues do you currently have with ER?

Discussion document November 2016

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

10 Ministry for Primary Industries

Licensed fish receivers

Would problems do you experience with landing data?

Implementation plan

Do you agree with the proposed implementation arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|--|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Would you like to comment?

Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

Monitoring, evaluation and review

Do you agree with the proposed monitoring, evaluation and review arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|--|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Would you like to comment?

2Minin. ed? T. What do you think should be monitored? To whom should the results be reported?

Volume III: Integrated Electronic Monitory and Reporting System (IEMRS)

Current state

Do you agree with how we have defined the current state in relation to monitoring and reporting (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |

Would you like to comment? For instance, how would you describe the current system? What other factors should be considered?

Electronic monitoring and human observers are both tools in the monitoring and reporting network. One should not be seen as a substitute for the other. A business case should be made to include both means of surveillance with cross referencing and auditability between the two.

Dept. of Internal Affairs should be tasked to conduct an audit of reported fish landings vs observer and electronic data.

Problem definition

Do you agree with how we have defined the problem (please tick only one box)?

| Strongly disagree | e i | 9 |
|-------------------|-----|-------------|
| Disagree | | |
| Neither | | \boxtimes |
| Agree | | |
| Strongly Agree | S | |

Would you like to comment? For instance, what evidence should we examine to inform further analysis of the problem?

| Objectives | | |
|---|---|---|
| Do you agree with obje | ctives of IEMRS (please tick only one box)? | V |
| Strongly disagree Disagree Neither Agree Strongly Agree | | |
| Would you like to com | nent? | |
| | K CIAY | |
| | | |
| | | |
| 2 | | |
| A A A A A A A A A A A A A A A A A A A | | |
| 18 Ministry for Primary Industri | S | |
| | | |

Option 1: Current state

Do you agree with this option (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | \boxtimes |
| Agree | |
| Strongly Agree | |

Option 2: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017

Do you agree with this option?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | \boxtimes |

Option 3: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017, and introduction of electronic monitoring on commercial fishing vessels beginning 1 October 2018

Do you agree with this option (please tick only one box)?

 \square

 \boxtimes

Strongly disagree Disagree Neither Agree Strongly Agree

Would you like to comment?

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

می مر مر If you do not consider EM practical on some vessels, how else would you propose MPI verifies catcheffort reporting?

Permit holders

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

What issues do you currently have with ER?

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

22 Ministry for Primary Industries

Licensed fish receivers

Would problems do you experience with landing data?

Implementation plan

Do you agree with the proposed implementation arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|--|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Would you like to comment?

Do you see value in a MPI, commercial sector and service provider working group to work on implementation issues?

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

Monitoring, evaluation and review

Do you agree with the proposed monitoring, evaluation and review arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |

Would you like to comment?

And the second What do you think should be monitored? To whom should the results be reported?

Dept. of Internal Affairs be contracted to audit and reconcile actual vs reported fish landings by species. (

the service of the se

Monitoring fisheries at finer spatial scale: Effective fisheries management takes place at a sub-QMA level.

Do you agree that monitoring and management of fisheries should take place at a finer geographical scale than the current quota management areas (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | \boxtimes |

Would you like to comment?

The technology is there to enable this to happen (ER) so why not?

who who have a service of the servic

the second secon

Volume III: Integrated Electronic Monitory and Reporting System (IEMRS)

Current state

Do you agree with how we have defined the current state in relation to monitoring and reporting (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |

Would you like to comment? For instance, how would you describe the current system? What other factors should be considered?

I am reasonably satisfied with the current system as it affects the deep water sector and some single species inshore fisheries eg. rock lobster and paua

As regards the inshore sector, particularly mixed species trawl fisheries, I don't think the current systems serves it well.

Problem definition

Do you agree with how we have defined the problem (please tick only one box)?

| \boxtimes |
|-------------|
| |
| |

Would you like to comment? For instance, what evidence should we examine to inform further analysis of the problem?

I think that more data derived from inshore observers is required before useful analysis can be attempted.

Objectives

Do you agree with objectives of IEMRS (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | \boxtimes |



Would you like to comment?

<text> I think reporting needs to be more timely and on a finer scale. I also think that the information which is gained should be available to industry so that it can be used to inform markets (traceability,

Option 1: Current state

Do you agree with this option (please tick only one box)?

| Strongly disagree | \boxtimes |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Option 2: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017

Do you agree with this option?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | \boxtimes |

Option 3: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017, and introduction of electronic monitoring on commercial fishing vessels beginning 1 October 2018

Do you agree with this option (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |
| | |

Would you like to comment?

I think that cameras need to be higher quality, vessels are not necessarily designed to use cameras well but the idea has merit and should be progressively brought in.

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

I think there needs to be a stage where on-board observers are used to verify camera data, ie compare on-shore camera reviewer conclusions with those gained by an on board observer.

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

This is pretty obvious

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

Perhaps fishery by fishery? Eg. get it right in the snapper long-line fishery before moving on to other bottom longline fisheries

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

- Limitations in the technology
- A sense of having their privacy "invaded"

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catcheffort reporting?

At-sea observers

Permit holders

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

N/A

Do you operate this technology on your own behalf, or as an input into someone else's operations?

N/A

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

N/A

What issues do you currently have with ER?

N/A

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

N/A

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

N/A

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

N/A

| How might your | existing | systems used | by you and | your | stakeholders | deliver on | IEMRS | objectives? |
|----------------|----------|--------------|------------|------|--------------|------------|-------|------------------------------------|
| 0 1 | 0 | | | 1 | | | | · · · J · · · · · · · · · · |

N/A

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?



Licensed fish receivers

Would problems do you experience with landing data?

N/A

Implementation plan

Do you agree with the proposed implementation arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |

Would you like to comment?

A start has to be made somehow/sometime soon.

| Do you see value in a MPI, | commercial | sector and | service | provider | working | group to | work on |
|----------------------------|------------|------------|---------|----------|---------|----------|---------|
| implementation issues? | 0_ | | | | | | |

Yes

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

Market benefits

Monitoring, evaluation and review

Do you agree with the proposed monitoring, evaluation and review arrangements (please tick only one box)?

2 Miles

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |

Would you like to comment?

What do you think should be monitored? To whom should the results be reported?

I feel the results should go back to the quota owners KINGER INDER

| [Not relevant to request] | e contraction of the contraction |
|--|--|
| | |
| | |
| Volume III: Integrated Electronic Monit (IEMRS) | ory and Reporting System |
| Current state | A Contraction of the second se |
| Do you agree with how we have defined the current star (please tick only one box)? Strongly disagree Disagree Neither Agree Strongly Agree | te in relation to monitoring and reporting |
| Would you like to comment? For instance, how would y factors should be considered? | ou describe the current system? What other |
| Problem definition | |
| Do you agree with how we have defined the problem (p Strongly disagree Disagree Neither Agree Strongly Agree | lease tick only one box)? |
| Would you like to comment? For instance, what evidence analysis of the problem? | e should we examine to inform further |
| \mathcal{C} | |

Objectives

Do you agree with objectives of IEMRS (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | \boxtimes |

Would you like to comment?

Yes, Option 3 is most likely to improve management.

Option 1: Current state

Do you agree with this option (please tick only one box)?

| Strongly disagree | \boxtimes |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |

Option 2: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017

Do you agree with this option?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |
| | |

Option 3: Electronic reporting and geospatial position reporting for all permit holders from 1 October 2017, and introduction of electronic monitoring on commercial fishing vessels beginning 1 October 2018

Do you agree with this option (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | \boxtimes |

Would you like to comment?

Improved position tracking should be applied to all boats venturing out of sight of shore. GPS tracking beacons are now affordable and used by hill-walkers. Why

cannot all boat users be required to have them and give piece of mind to family onshore, and help search and rescue find lost boats?

• Any boats that are fishing, recreational or commercial, should be automatically tracked by a national agency to provide an indicator of fishing effort (where and when). Each boat should be required to report what it caught, regardless of it being quota or bycatch as a condition of having permission to go fishing. Probably a phone App could be designed to make this simple for recreational/subsistence fishing.

General questions

Are there other options, not described in this section, which should be considered? If so, what are the potential disadvantages and benefits of those options?

Do you have any suggestions on how IEMRS and its components (EM, ER, GPR) could deliver benefits to the commercial sector generally and to you particularly?

Given that the introduction of IEMRS technologies would occur in stages across the commercial fishing fleet, do you have any suggestions on how that phase-in period should be rolled out?

What do you consider are particular difficulties that vessel operators may encounter in implementing EM?

If you do not consider EM practical on some vessels, how else would you propose MPI verifies catcheffort reporting?

Permit holders

What EM, ER or GPR technology/ies (if any) do you currently use in your operations?

Do you operate this technology on your own behalf, or as an input into someone else's operations?

If so, is it linked to the electronic systems of a Commercial Stakeholder Organisation (the representative body for commercial fishers of a particular stock or group of stocks, such as the Paua Industry Council), or other similar management group?

What issues do you currently have with ER?

What sort of feedback do you want from ER? What sort of data from ER would be helpful to you?

If you do not currently utilise ER, EM and/or GPR technology, do you have any interest in being an "early adopter"?

Commercial stakeholder organisations (CSOs)

If you represent a CSO, would you be prepared to share your information standards for data collection on fishing activity with MPI on a confidential basis?

How might your existing systems used by you and your stakeholders deliver on IEMRS objectives?

Would you be prepared to identify vessels that use types of GPR and ER amongst those represented by your organisation?

Licensed fish receivers

Would problems do you experience with landing data?

Implementation plan

Do you agree with the proposed implementation arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|--|
| Disagree | |
| Neither | |
| Agree | |
| Strongly Agree | |
| | |

Would you like to comment?

| Do you see value in a MPI, commercial se | ctor | and | service | provider | working | group to | work on |
|--|------------|-----|---------|----------|---------|----------|---------|
| implementation issues? | \bigcirc | | | | | | |

What other issues does MPI need to consider to facilitate the commercial fleet's transition to IEMRS?

Monitoring, evaluation and review

Do you agree with the proposed monitoring, evaluation and review arrangements (please tick only one box)?

| Strongly disagree | |
|-------------------|-------------|
| Disagree | |
| Neither | |
| Agree | \boxtimes |
| Strongly Agree | |
| | |

Would you like to comment?

What do you think should be monitored? To whom should the results be reported?