

Conducting Fisheries Research with Fisheries New Zealand

This document is designed to provide both potential and current research providers additional information regarding the supply of fisheries research services to Fisheries New Zealand.

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1 Reporting Requirements

1.1 GENERAL

For each fisheries research project, the research specification will detail the reporting requirements including the type of report(s) required and the corresponding due date/frequency. Electronic templates of report formats are provided at the <u>Fisheries New Zealand Research Documentation</u> online.

These reports provide a variety of information on the progress and results of research projects, the achievement of objectives, the methods and key activities used to achieve the objectives, and the results and conclusions of the research.

All reports **must** be completed in full and submitted to Fisheries New Zealand via email: contracts@mpi.govt.nz.

1.2 VOYAGE PROGRAMMES (FORM 2)

Voyage programmes provide information on the activities proposed to be undertaken during research voyages involving the use of chartered commercial or research vessels. The format is specified in Form 2.

A voyage programme must be made available prior to the commencement of the research voyage as specified in the contract.

1.3 VOYAGE REPORTS (FORM 3)

Voyage reports provide a summary of the activities undertaken during research voyages involving the use of chartered commercial or research vessels. The format is specified in Form 3.

Voyage reports are submitted after the completion of the research voyage as specified in the contract.

1.4 RESEARCH PROGRESS REPORTS (FORM 4)

Research Progress Reports provide information on the progress of research projects in more detail than Project Update Reports and contain a summary of the results to date. The reports must be submitted as specified in Form 4.

Progress Reports are required if specified in the contract.

1.5 FINAL RESEARCH REPORTS (FORM 5)

Final Research Reports provide information on research projects when they have been completed. They are not expected to provide definitive statements on the subjects addressed but report on a particular aspect of an ongoing research programme. The reports must be submitted as specified in Form 5.

Final Research Reports are required if specified in the contract.

1.6 AQUATIC ENVIRONMENT AND BIODIVERSITY REPORTS (FORM 6)

New Zealand Aquatic Environment and Biodiversity Reports (AEBRs) are intended to provide fisheries managers, government departments and the New Zealand science community ready access to the findings and conclusions of aquatic environment and biodiversity related research programmes.

An AEBR is a stand-alone document and all relevant information should be included. For example, the description of methodology and logistics already provided in a Voyage Report should be included (or summarised in sufficient detail) in the AEBR. AEBRs should represent the opinions of the author(s), but should also note and discuss any divergent Working Group opinions. AEBRs will be refereed according to the *Guidelines for Refereeing of FARs*.

The information required in each section of the AEBR is specified in Form 6. A template for the AEBR is also available online under Forms & Templates.

1.7 FISHERIES ASSESSMENT REPORTS (FORM 7)

New Zealand Fisheries Assessment Reports (FARs) are intended to provide fisheries managers, government departments and the New Zealand science community ready access to the findings and conclusions of fisheries assessment research programmes.

A FAR is a stand-alone document. As such, all relevant information should be included. For example, the description of methodology and logistics already provided in a Voyage Report should also be included in the FAR.

FARs should represent the opinions of the author(s), but should also note and discuss any divergent Working Group opinions. FARs will be referred according to the *Guidelines for Refereeing of FARs*.

The information required in each section of the FAR is specified in Form 7. A template for the FAR is also available online under Forms & Templates.

1.8 FISHERIES ASSESSMENT WORKING GROUP REPORTS (FORM 8)

Fisheries Assessment Working Group Reports (WGRs) are required for all species/fisheries included in the fisheries assessment process. They are produced primarily for consideration by the Fisheries Assessment Plenary, and will be the main source of assessment data for most species/fisheries. One or a few authors will usually produce the initial draft(s) of WGRs. However, the final WGR will be the responsibility of the Working Group as a whole.

The Working Group convenors are responsible for arranging the refereeing and editing of the WGRs before they are submitted to the Principal Advisor Fisheries Science. The Principal Advisor Fisheries Science is responsible for final refereeing and editing after the WGRs are submitted to the Fishery Assessment Plenary. Where new data have not resulted in new analyses (e.g. annual updates of catch and effort data), the new data should be presented and summarised in the WGRs. In general no FAR will be required in such cases.

The information required in each section of the WGR is specified in Form 8. A style guide for the Working Group Report is also available online under Forms & Templates.

1.9 SUBMITTING REPORTS TO FISHERIES NEW ZEALAND (FORM 9)

All reports MUST be submitted via email to the MPI Contracts Monitoring and Administration Team at contracts@mpi.govt.nz. Except where permitted by the Ministry, all reports will be submitted as a Microsoft WORD file only.

To allow for more efficient receipt of these reports, a coversheet detailing the particulars of the report must accompany each report. The format of the coversheet is provided in Form 9.

1.10 WORK IN PROGRESS REPORTS (FORM 13)

A Work in Progress report documents the percentage complete for each milestone and the agreed contract variations. Any Milestones that will not be completed by the contracted due date must be highlighted as well as the proposed completion date. This does not constitute a contract variation. The contract variation process will need to be adhered to for these proposed date changes to take effect. Failure to provide a contract variation request may result in cancellation of the contract for non-performance or the Ministry declining to pay for the Milestone.

A Work in Progress Report is required for each project, and is due by the fifth working day of each month. Due to the importance of the Work In Progress report to the Ministry's planning, monitoring and reporting process, failure to file a Work In Progress report by the due date may constitute a material breach of the contract.

The format for the Work in Progress reports is set out in Form 13.

1.11 DRAFT RESEARCH REPORTS- DISCLAIMER REQUIREMENT

All draft reports must contain the following disclaimer within the Header or Footer on every page: " $Draft\ research\ report-for\ discussion\ only$ " and the following statement on the front page:

"This draft report is not for publication or release; it is presented for consideration by Fisheries New Zealand and Fishery Assessment Working Groups. It may contain unpublished data, analyses, and/or conclusions that are subject to change. Data contained in this report should not be cited or used for purposes other than the work of Fisheries New Zealand and its Working Groups without the written permission of Fisheries New Zealand and the authors."

1.12 REQUESTS FOR COPIES OF FISHERIES NEW ZEALAND REPORTS

The Ministry will generally make unpublished reports available to interested parties upon request. Exceptions include cases where confidential data or analyses have been included in the report. Requests should be submitted via email to contracts@mpi.govt.nz. The content and format of the above request is specified in Form 11. Please note that all requests for unpublished reports are subject to the approval of the Principal Adviser Fisheries Science.

Published reports are available on the Ministry for Primary Industries websites at:

https://www.mpi.govt.nz/news-and-resources/publications/

http://fs.fish.govt.nz (go to document library/research reports)

2 Data Management

2.1 GENERAL

Schedule 3 of the Fisheries New Zealand Request for Proposal (RFP) template has been developed to determine what data each project is likely to provide to the Ministry's Research Data Manager¹ upon completion of a project. The type of data that might be collected as part of a project includes electronic, paper, forms/logbooks and physical specimens.

All of the questions will need to be answered with either "Yes" or "No", and some will require further information to be supplied.

Some fisheries research data (for example - Catch Effort and Observer data) are confidential in nature and must be securely managed and, unless otherwise specified, copies of these data are to be destroyed at the end of the project.

2.2 DATA PROVISION

The Ministry's standards for data provision are:

Data must be provided in a format and at a quality level that can easily be managed by the Ministry's Research Data Manager (The formats and standards for each database are set out on the Ministry's website https://www.fisheries.govt.nz/news-and-resources/science-and-research/fisheries-research-documentation-database/

- Metadata must be provided for all data.
- Electronic data must be provided using industry standard software. Where possible, data must be stored using up-to-date versions of Microsoft Word, Microsoft Excel, Microsoft Access, Adobe Acrobat PDF, or industry standard SQL relational database software.
- Formats for specialised data (e.g. acoustic data) must be acceptable to Fisheries New Zealand.
- Data must be supplied using industry standard data storage media.
- The language used for data and documentation must be English.
- All data **must** be submitted to the Ministry's Research Data Manager in accordance with the agreed data management plan (Schedule 3).
- For the submission data, and all queries regarding the submission of data, please email the Research Data Manager on fisheriesdataservices@niwa.co.nz.

If no data are produced while carrying out a project, the Contractor must submit a nil return to the Ministry's Research Data Manager.

2.3 DATA TYPES

Data may include but not be limited to:

- "new" electronic data equivalent to that stored in existing Ministry databases;
- "new" electronic data not equivalent to that stored in existing Ministry databases;
- modified or groomed versions of existing electronic data;
- raw data forms including paper forms and books of paper forms, field or survey diaries and notebooks, and photographs, video and audio tape;
- specimens, being either whole, or part, marine organisms (including otoliths);
- spatial data; and
- metadata.

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¹ Fisheries New Zealand has outsourced the management of fisheries research data to The National Institute of Water and Atmospheric Research (NIWA).

2.4 NEW DATA

"New" electronic data equivalent to that stored in existing Ministry databases may include, but is not limited to:

- trawl survey data;
- acoustic survey data;
- otolith ageing data;
- market sampling data; and
- recreational survey data.

The costs of providing these data in the required form are payable by the Researcher and must form part of the submitter's price for each project.

Unless agreed to by the Ministry's Research Data Manager, in relation to "new" electronic data not equivalent to that stored in existing Ministry databases the Researcher is required to:

- create an appropriate electronic relational database to store these data;
- incorporate appropriate data quality (for example range checks) and referential integrity checks into this database;
- provide documentation for this database, equivalent to that which exists for other Ministry databases, including entity relationship diagrams, data dictionaries, descriptions of business rules, and full documentation of code and reference tables;
- enter the raw data collected into this database; and
- provide the finished database, and associated documentation, to the Ministry's Research Data Manager.

2.5 MODIFIED DATA

When providing modified or groomed versions of existing electronic data, including but not limited to modification or grooming of existing electronic data, the researcher is required to provide the Ministry's Research Data Manager with a:

- copy of the original data;
- copy of the final (modified/groomed) version of the data that was used for analysis; and a
- description of the rules and procedures which were used to check and correct the data to a standard that would allow an independent researcher to derive the final dataset from a copy of the original dataset.

2.6 RAW DATA FORMS

All raw data forms, and books of raw data forms including field or survey diaries, notebooks (including drawings), are to be clearly labelled and catalogued and are to be provided to the Ministry's Research Data Manager.

The Researcher is required to provide the Ministry's Research Data Manager with copies of all image and audio data collected during a project and be accompanied by documentation describing the dataset There must be no degradation of digitised image or audio data during transmission to the Research Data Manager, unless agreed by the Ministry in writing at the commencement of the contract.

2.7 SPECIMENS

All reference specimens and material such as otoliths and slides are to be clearly labelled and preserved in a recognised manner to minimise the possibility of the quality of specimens degrading over time. All specimens collected or used during a Project are to be provided to the Ministry's Research Data Manager together with a catalogue of the specimens supplied.

2.8 SPATIAL DATA

The researcher is required to provide the Ministry's Research Data Manager with copies of all Geographical Information System (GIS) data developed during a project. The data will be provided in

shape file format, with the projection and datum stated clearly and be accompanied with appropriate metadata and lineage to describe the dataset (see Metadata below).

2.9 METADATA

Metadata, being information about the data collected or generated during the course of the project, must be provided to the Ministry's Research Data Manager. For each of the types of data this will include (but not be restricted to) the:

- positional accuracy to which the data was collected or stored (for example 0.01 of a degree);
- temporal accuracy to which the data was collected and stored (for example 1 minute);
- locations from which the data was collected; and
- time period over which the data was collected.

A list of fields of information the researcher must supply regarding each dataset is available from the Ministry's Research Data Manager.

In relation to GIS Metadata/Lineage, the layers would be a summary of information derived from sources such as:

- published data and maps;
- scientific research data;
- remote sensing data (satellite, aerial photography etc.);
- expert opinion detailing the likely presence or absence of the feature in areas where it has not been observed or measured (for example where similarity or environment makes it extremely probable that the attribute or feature would be found in an area).

The format of the metadata is Excel spreadsheet, with the column heading coinciding with the metadata field headings. Please see appendix one of the <u>GIS Metadata Requirements</u> (doc | 263kb) for an example of the structure.

The lineage document provides background information on how a map was generated. The format of the lineage is Word or PDF. It provides details of references used and any interpretation carried out. Please see appendix two of the GIS Metadata Requirements (doc | 263kb) for an example.

The lineage document is arguably the most crucial component of the metadata. The lineage is the key source of background information for a user of an information layer, so the content must allow a user to fully understand the nature of the information layer. The lineage document must include:

- the source of the data;
- any errors or issues with the data;
- a description of how the dataset was generated or derived, including the processes used to create the information layer;
- the rationale for using a certain approach;
- any errors or issues with the information layer;
- a summary of what is depicted on the information layer; and
- any additional information that enables a user to determine how the information layer was generated.

2.10 AVAILABILITY OF MINISTRY DATA

Researchers may request previous fisheries research information stored on electronic databases by emailing rdm@mpi.govt.nz. The release of this information is at the Ministry's discretion.

Examples of these datasets are:

- trawl survey data from research vessels in inshore/middle depths/deepwater fisheries;
- length and age data of fish sampled in fish sheds for major commercial species;
- acoustic research data:
- data on fish age, length etc;
- published reports of earlier research studies; and

• collections of samples for ageing work (mainly otoliths), and other studies (e.g. stock separation).

2.11 COMMERCIAL CATCH AND EFFORT DATA

The Ministry is not able to provide submitters with Catch and Effort datasets for the preparation of proposals/tenders. However, the researcher will have all relevant data supplied to them to carry out any of the projects they are contracted to carry out. Depending on the size of the fishery and the number of years of data, the size of the dataset varies. Detailed information about format and structure of Catch and Effort data is available from the Fisheries New Zealand Data Management team by emailing rdm@mpi.govt.nz

2.12 OBSERVER REPORTS

The Observer Services Unit carries out collection of data at sea from commercial fishing vessels. Most observed trips are on trawlers in the middle depths and deepwater fisheries, and longline vessels mainly in the tuna and ling fisheries. In recent years observations on vessels using different methods have been carried out, including purse seine, set netting and trolling. These data are available on request to submitters to assist in proposal/tender preparation, unless they contain confidential information

The observer data recorded for all fishing methods includes, but is not limited to vessel details, trip details, event details, catch weight, length frequency and otolith samples, discards and non-fish bycatch.

2.13 PUBLICATIONS OF COMMERCIAL CATCH AND EFFORT DATA AND OBSERVER DATA

Commercial Catch and Effort data and Observer data may only be published in the following summarised form if:

- latitudes and longitudes (maps or any other means of display) are truncated to a 1 degree level of resolution if they refer in any way to the magnitude of catches;
- latitudes and longitudes (maps or any other means of display) are truncated to a 0.2 degree level of resolution if they do not refer in any way to the magnitude of catches;
- information that identifies specific vessels or people is removed, including any unique system identifiers of vessels or people (includes companies);
- vessel attributes (e.g. length, breadth, tonnage, nationality etc.) are removed;
- data is grouped such that no group contains data from less than three vessels or three persons (includes companies) unless:
 - the data does not contain sufficient detail to evaluate the number of vessels and persons contained within a group; and
 - it is reasonable to believe that no group is likely to contain data from less than three vessels or three persons.
- dates are truncated to a one month level of resolution.

The authorised person from Fisheries Management will consider requests to publish data that are not summarised in this manner.

3 Other Requirements

3.1 SPECIAL PERMITS

Where a research project requires that fish, aquatic life or seaweed be taken in performance of the research project (Research Fish), the research provider will take or arrange for the research fish to be taken in accordance with an appropriate special permit or any other authorisation required under the fisheries legislation.

Where a Special Permit is required to carry out the research project, the researcher must submit an application for a Special Permit to Fisheries New Zealand in accordance with the Fisheries Act 1996. To apply for a special permit please contact specialpermits@mpi.govt.nz.

3.2 VARIATION REQUESTS (FORM 12)

All variations to the Contract must be requested in writing as required in the General Terms of the Fisheries New Zealand Agreement. Requests MUST be made for:

- variations to existing Milestones and reporting requirements;
- addition of Milestones and reporting requirements;
- deletion of existing Milestones and reporting requirements;
- addition of specific objectives;
- changes to the terms and conditions; and
- changes to novation (change to the Researcher).

Variation requests must be submitted to contracts@mpi.govt.nz from a duly authorised member of the researcher provider. The format of the Variation Request Form is in Form 12. Please only complete the sections of the Variation Request Form that are applicable to the request and give a detailed reason for the request.

The Fisheries New Zealand Scientist responsible for the project and the appropriate Science Manager will then evaluate the variation request and subject it to a cost-recovery consultation if necessary. The request will then be approved or rejected. If the variation is approved, a Contract Variation Acceptance Letter will be sent to the Researcher.

The variation to the contract will only come into effect once both the Researcher and Fisheries New Zealand have signed the Contract Variation Acceptance Letter.

3.3 RESEARCH AND SCIENCE INFORMATION STANDARD

The Fisheries New Zealand Research and Science Information Standard for New Zealand Fisheries (the "Research Standard") is a policy statement of best practice in the delivery and quality assurance of research and science information for New Zealand fisheries.

The Standard sets out key principles for research and science information quality that apply to everyone involved in the provision of research and science information. It is founded on international best practice for science quality assurance, tailored to New Zealand's requirements. Research providers are expected to adhere to all relevant sections of the Research Standard.

The Standard can be downloaded here https://www.mpi.govt.nz/dmsdocument/3692/direct