PREPARING AN INTEGRATED FISHERIES MANAGEMENT PLAN (IFMP)

GUIDANCE DOCUMENT AND TEMPLATE

Contents

1.0INTRODUCTION

1.1 Purpose

The purpose of this document is to provide guidance to departmental staff in the development of Integrated Fisheries Management Plans (IFMP). While the IFMP template (Appendix A) provides the basic information regarding the content of the IFMP, this guidance document aims to further clarify both the content and application of the template, as well as to recommend a general process to develop an IFMP.

It is essential that all staff is aware that IFMPs are not legally binding instruments, and cannot form the basis of a legal challenge. The IFMP can be modified at any time. Its development does not fetter the Minister's discretionary powers set out in the *Fisheries Act*. The Minister can, for reasons of conservation or for any other valid reasons, modify any provision of the IFMP in accordance with the powers granted pursuant to the *Fisheries Act*. This must be clearly outlined at the beginning of each IFMP, and emphasized to those stakeholders who are participating in the development of the document.

1.2 What is an IFMP?

The IFMP is both a process and a document. Its primary goal is to provide a planning framework for the conservation and sustainable use of fisheries resources and the process by which a given fishery will be managed for a period of time.

As a process, it integrates the expertise and activities of DFO sectors (i.e. Science, Conservation and Protection, Aboriginal Policy and Governance, Oceans and Habitat, Policy and Economics, Aquaculture) in fisheries management planning under the leadership of Resource Management. It also allows for enhanced input from resource users and other stakeholders[1] into decision-making processes regarding management and conservation measures affecting a fishery (usually via an advisory committee). In areas subject to land claims agreements, joint management of fisheries is legislated and IFMPs are developed jointly with co-management boards through a process involving resource users and other stakeholders. The role of the Minister in establishing management plans has been fettered and some of the Minister's decision making authorities are shared with these co-management bodies. It is therefore important to respect the roles of the co-management bodies and the Minister in developing IFMPs.

Further, it is important that considerations related to Food, Social and Ceremonial harvesting are taken into account and the federal government's commitment to consult are fulfilled. [2]

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[1] In most fisheries managed by DFO, there is an advisory committee comprised of representatives from the various sectors of the fishery. The role of this group is to provide input on management strategies proposed by DFO and to serve as a consultative body for fishers. Under the IFMP process, transparency and openness are paramount. Therefore, the committee structure may need to be redefined to ensure that the committee adequately represents the various interests in the fishery. Provisions to consult with other concerned stakeholders (i.e. provinces, non-profit organizations) may also have to be made.

[2] Where DFO contemplates conduct that might adversely impact established or potential section 35 rights, DFO must follow the Interim Guidelines for Federal Officials to Fulfill the Legal Duty to Consult, February 2008. Legal Services Unit should be involved to determine whether the government has a legal duty to consult, when it may be engaged

As a document, IFMPs are an important reporting tool and valuable source of information on a given fishery for fisheries managers, other DFO sectors (i.e. those having input into the fisheries management process), legislated co-management partners, fishery participants, other stakeholders and the general public. They provide a clear and concise summary of the characteristics of fishery, scientific aspects, management objectives for the fishery, management measures used to achieve those objectives and criteria by which attainment of objectives will be measured. The provisions of the plan will determine how the fishery will be managed and, where applicable, what will appear in licence conditions.

1.3 History

IFMPs were first introduced to DFO in the mid-1990s, with the concept and general content confirmed in July 1995 through a memorandum from the ADM of Fisheries Management. IFMPs were seen as a means to improve program delivery, ensure greater integration of functional and technical expertise within DFO, increase linkages within DFO, and identify performance outputs for individual fisheries management plans. The expectation was to have fully integrated IFMPs completed for all major Canadian fisheries by 1996/1997. Unfortunately, during the following decade, the full integration of Canadian fisheries into the IFMP framework was incomplete, with many major and minor fisheries either having outdated plans or none at all. For those IFMPs that had been developed, the content was highly variable between plans.

In recent years there has been growing pressure to renew IFMPs and ensure their application in all major fisheries, largely as a result of marketplace demands for demonstrated sustainable fishing practices and the need for a departmental vehicle for implementing sustainable fisheries policies. Through an IFMP renewal process initiated in 2007/08, departmental representatives from all regions and relevant sectors (i.e. Resource Management, Conservation and Protection, Science, Oceans and Habitat Management, Policy and Economics) modified the existing IFMP template based on lessons learned since the mid-1990's and emerging issues.

1.4 Relationship to Departmental Activities

There are three overarching factors that IFMPs must address:

- The requirement to incorporate the Resource Management Sustainable Development Framework, in particular the precautionary approach and ecosystem factors and impacts in fisheries decision-making;
- The demands of Canadians seeking more stability, fairness and transparency from fisheries management systems; and
- The need to put in place a rules-based approach to decision-making which is more transparent, rigorous and systematic.

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and the scope or extent of that obligation. In addition, legal counsel may also be consulted in those situations where it has already been determined for policy, relationship or other reasons that DFO needs to consult with Aboriginal groups. This would enable an assessment to be done to ensure that a legal duty is not implied where it does not exist.

The established IFMP process may be enough to satisfy the requirement to consult in many situations. In those situations, the process ought to be designed to make the most efficient use of existing and proposed processes and resources while maximizing the contribution of all participants. DFO must keep records of all communications and ensure that all meetings and correspondence are on the record to enable the Crown to rely on such information, if necessary, in Court.

More specifically, DFO is implementing and developing a number of tools and policies to address those factors outlined above. These include:

- A fishery decision-making framework for establishing harvest strategies which incorporate the precautionary approach;
- A policy to manage the impacts of fishing on sensitive benthic areas;
- A policy to help guide decisions regarding fisheries for forage species; and
- A Fisheries Checklist to help DFO self-assess progress towards sustainability, identify gaps in knowledge and practices, and to report externally on performance and progress towards sustainable management of fisheries.

IFMPs provide a comprehensive planning, implementation and reporting tool to further this agenda. The range of objectives and management measures as outlined in IFMPs will be developed in consideration of policies regarding benthic habitat, forage species, by-catch, discards, etc. IFMPs will incorporate limit reference points developed within the framework of the precautionary approach, as well as associated decision rules. They will also utilize the Fisheries Checklist as part of the annual performance review.

Along with being instrumental in the implementation of the Sustainable Development Framework, IFMP renewal supports the Atlantic Fisheries Policy Review by outlining shared stewardship objectives and arrangements to increase stakeholder involvement in fisheries management processes, including shared decision-making.

2.0IFMP PROCESS GUIDANCE

It is understood that no single IFMP development process can meet the needs of all fisheries. The nature of specific fisheries, existing stakeholder advisory processes, land-claim agreements, and regional and departmental priorities will affect the manner in which an IFMP is developed. However, despite the range of factors that surround any particular fishery, there is a strong case for a standardized approach to IFMP development both from the perspective of an IFMP being a process and a document. As a process, the IFMP ensures that both DFO sectors and stakeholders are integrated in a consistent manner. As a document, the IFMP provides a window to the world (i.e. stakeholders, Aboriginal groups, NGOs, governments and international multi-lateral institutions) outlining DFO's management practices, including our application of sustainable fisheries practices.

2.1 Process

In order to provide a generic IFMP development process, which provides for both a core of key activities, and which can be modified to suit the needs of each fishery, the following is proposed:

- The IFMP development process is triggered by the post-season review of a fishery. Immediately upon completion of the post-season review, the Chair (the species advisor in Resource Management) will invite relevant sectors to designate a representative to an IFMP Development Committee (DC).

- The DC will discuss the results of the post-season review; assign sectoral tasks required for the development of the IFMP, and put forward a timeline for the collection and consolidation of information. The Chair will track progress and will consolidate the information into a draft document.

- The director, Resource Management, will invite DC member sectors' directors to meet and discuss the draft IFMP. The draft which will be circulated in advance of the meeting will be

presented by the Chair. Feedback will be incorporated in a revised draft IFMP including internal agreement in principle on main elements, issues and objectives..

- Consultations with external stakeholders will follow the final version. Existing advisory processes (e.g. Large Oceans Management Area (LOMA) Committees) will be used, and additional forums may be developed where necessary. Where DFO has determined that there is a legal duty to consult with Aboriginal groups, Resource Management staff must ensure that the existing process for consultations, or any new process designed for this purpose, meets the requirements outlined in the Interim Guidelines for Federal Officials to Fulfill the Legal Duty to Consult, February 2008.

- The Chair will present the draft IFMP. Participants will be encouraged to discuss the content of the document, provide additional information and suggest needed changes. The draft document should be circulated to participants as widely as possible, in advance of the meeting. A structured agenda and appropriate facilitation techniques will be used to guide the meeting, and a record of the discussions and decisions will be kept. Feedback will be incorporated in a revised draft IFMP in cooperation with participants.

- The director, Resource Management will invite DC member sectors' directors to meet and discuss the post-consultation draft IFMP. The draft which will be circulated in advance of the meeting will be presented by the Chair. Feedback will be incorporated in a revised draft IFMP, and the document will become the final draft.

- The final draft, and associated briefing note, will be delivered to the appropriate management level (see Section 4.0) for approval. To allow time for review of the IFMP, and for the preparation of licence conditions prior to the start of fishing activities, the IFMP should be submitted for approval as far in advance of the opening of the fishery as possible.

- The final IFMP will be released to the public on the DFO national and regional websites and if possible should be released a minimum of one month prior to the opening of the fishery.

For multi-year IFMPs, details regarding stock status (IFMP Section 2), management measures (IFMP Section 7) and compliance plans (IFMP Section 9) need to be reviewed and/or updated annually using the same process as outlined above. Changes will generally be incorporated into the appendices rather than to the main text of the IFMP, and posted on the DFO national and regional websites. Further information is presented in section 3.2.

Aspects of the IFMP development process may be tailored to suit the specifics of each fishery. As IFMPs are joint DFO-stakeholder documents, major external stakeholders should always be engaged in developing the IFMP. Such engagement further promotes the shared-stewardship approach to fisheries management. Also, as co-management is legislated under land claims agreements, IFMPs need to be developed in full cooperation with the legislated co-management board established under that agreement.

Through a Memorandum of Understanding with Transport Canada, DFO will invite Transport Canada and Canadian Coast Guard representatives to participate in all regional fisheries management plan development process, including participation at regional fisheries advisory committee meetings. Section 3.2.12 provides further details.

3.0IFMP DOCUMENT GUIDANCE

3.1 Background

IFMPs serve two key functions:

- Identification of the issues, objectives and management measures designed to ensure an orderly, economically viable, socially/culturally beneficial and sustainable fishery;

- Communication of basic information on a fishery and its management within DFO and to outside parties.

Once the IFMP has been finalized, it should constitute an explanation and document of record of how the fishery is managed for readers both within and outside DFO.

3.2 IFMP Template

A template to guide the development of IFMPs is provided in Appendix A of this document. It is anticipated that IFMPs will be developed in a manner which is consistent in both format and content with the template provided. However, it is also acknowledged that specific circumstances (i.e. plans developed in the context of co-management processes under the auspices of land claim agreements) may necessitate the use of a modified template to be developed cooperatively with the relative jurisdictions. Such modification, however, should remain as consistent as possible to the principles and guidelines set out in this document.

3.2.1 Foreword

A nationally consistent *Foreword* has been provided in Appendix B of this guidance document. Its purpose is to introduce the IFMP in the context of fisheries management processes in Canadian waters. The foreword page may also include a sign-off portion to indicate who has approved the IFMP. This may be particularly relevant when IFMPs are signed off by multi-jurisdictions (i.e. legislated co-management boards).

3.2.2 Overview of the Fishery (IFMP Section 1)

The purpose of this section is to provide a general overview of the fishery and provide context for the IFMP details that follow. Providing a brief history of the fishery will assist the reader in understanding the fishery, how it developed over time, and the basis of its management regime. The *Overview of the Fishery* should also contain general information on the fishery: the stock(s), who is involved, where it takes place and how it is conducted. Specific information on openings/closures for specific management units should be avoided, as these are outlined in IFMP Section 7.

Discussions of governance should include an overview of relevant co-management arrangements required under existing land claim agreements. Other non-legislated co-management and shared stewardship arrangement will be discussed in IFMP Section 8.

Information regarding decision-making and approval processes for the IFMP and associated management actions should be general in nature, and indicate who is ultimately responsible for final decisions. Relevant provisions of land claim agreements should be outlined.

3.2.3 Stock Assessment and Science (IFMP Section 2)

The purpose of this section is to provide the reader with an overview of the general biological characteristics of those species targeted by the fishery, their role in the ecosystem and the population status.

The Department has acknowledged the need to incorporate both Aboriginal Traditional Knowledge (ATK) and Traditional Ecological Knowledge (TEK) into the management of aquatic species. Where available, a brief overview of ATK and TEK on the species biology and population status should be included. Potential sources included science advisory reports (SARS), information collected for SARA purposes (i.e. COSEWIC status reports), community-based inventories and conservation plans, and information collected from fisheries advisory committees.

IFMPs should include a summary of the stock assessment process, including the types of data examined (i.e. research vessel surveys, sentinel fisheries, aerial surveys, etc.) and frequency of assessments, as well as a summary of the most recent stock assessment(s). Such information should be brief in nature, with references (including web addresses) provided to the CSAS documents (i.e. science advisory report, research document) for those readers wanting further detailed information. For single-year plans, information on stock status should be provided directly within the main text of the IFMP. For multi-year plans, this information should be provided as an appendix to the IFMP and updated with each new stock assessment.

Where available, stock prospects for the duration of the plan (and beyond where available) should be provided. Such information on projected trends will be vital in developing IFMP objectives and management measures that ensure the stock(s) are managed in a sustainable manner. Such information will also be required for assessing future economic trends and fishery viability discussed in Section 3 of the IFMP.

Where established, a brief summary of reference points (i.e. limit reference point and upper stock reference point) and population levels corresponding to stock status zones (i.e. healthy, cautious and critical) established under the auspices of the precautionary approach should be provided. Such information is best presented as a table or graph setting out the zones, reference points delineating the zones and the current status of the stock. References (including web addresses) to supporting documentation (i.e. Science Advisory Reports (SAR) and Research Documents) should be provided for those readers wanting further detailed information. Harvest decision rules associated with the reference points and stock status zones should not be discussed here, as these are addressed in IFMP Section 7.

A summary of research projects may include DFO activities, as well those conducted by other federal departments, provincial/territorial governments, academia, the fishing industry and other organizations. However, if this summary includes research being conducted outside of DFO, care must be taken to ensure the summary is accurate and the researcher(s) are in agreement with having this information presented in a public document. The lead for this section should remember that the purpose of this information is to provide a brief summary of "key" research. An exhaustive list of all potentially related activities is not required. Where critical information gaps exist, a summary of key future research needs is also beneficial. The summary of research activities should consider the target species, by-catch species, habitat and other ecosystem considerations related to the fishery.

3.2.4 Economics of the Fishery (IFMP Section 3)

The purpose of the economic content in the IFMP is to describe and assess:

- the socio-economic scale and significance of the fishery;
- the general profitability of the fishery and the economic health of its markets; and

- where applicable, the specific socio-economic impacts of proposed (or incidental) changes in the fishery.

To the extent that these socio-economic aspects of the fishery carry important implications for stock conservation and sustainable use, they are also important for fully informing decision makers, managers, industry and the general public.

A separate framework[3] has been developed by the Policy and Economics Branch to standardize the socio-economic analysis associated with IFMPs and harvest decisions. The socio-economic framework guides production of a specific report corresponding to a stand-alone paper on the economics of the fishery, which can undergo appropriate review procedures, and from which highlights can be taken for the IFMP.

An economic analyst will be responsible for providing a summary of the prominent economic information that should be embedded within the IFMP itself, while the rest of the analysis can be referenced by citation of the separate analytical document.

For some fisheries, there will be a paucity of economic information, and the production of a full analytical document may not be practical. The socio-economic framework allows for flexibility in the scope of the analysis that will be carried out, in order to accommodate a wide variety of situations. For example, in the case of FSC fisheries, recognition of the cultural/traditional importance of the fishery to Aboriginal peoples should be documented, incorporating traditional knowledge where available.

3.2.5 Management Issues (IFMP Section 4)

The purpose of this section is to provide the reader with an overview of key management issues and problems facing the fishery. These include issues typically associated with fisheries implementation, such as conflicts between resource users (i.e. various commercial sectors, recreational, aquaculture and Aboriginal), by-catch problems, discarding and catch monitoring. However, issues beyond the target species and the fisher harvesters themselves should also be considered. These include issues related to depleted species (i.e. COSEWIC, SARA and moratorium species), ecologically significant areas, gear impacts on aquatic habitats, gear losses and international considerations.

Information outlined in *Management Issues* provides a foundation for the development of the remainder of the IFMP. Objectives (IFMP Section 5), access and allocations (IFMP Section 6), management measures (IFMP Section 7), shared stewardship arrangements (IFMP Section 8) and compliance plans (IFMP Section 9) should always be developed in consideration of those management issues outlined in the IFMP.

The identification of key management issues will require the involvement of all relevant sectors within DFO, as well as co-management boards and resource users where possible, to ensure all aspects of the fishery and its impacts are considered. Additional sources of information that may prove useful in the identification of management issues include science advisory reports/stock assessments, SARA Recovery Strategies/Action Plans/Management Plans and Oceans documents (i.e. Ecosystem Overview and Assessment Reports).

3.2.6 Objectives (IFMP Section 5)

IFMP objectives should be **SMART** (Specific, Measurable, Attainable, Relevant and Timely) and developed to address (and potentially resolve) those management issues outlined in IFMP Section 4, as well as the stock scenarios outlined in IFMP Section 2 (where applicable).

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[3] A Framework for Socio-Economic Analysis to Inform Integrated Fisheries Management Plans and Fish Harvest Decisions. Policy Sector, Fisheries and Oceans Canada, DRAFT, Feb. 2008.

Long-term objectives (i.e. those not limited to the duration of the plan) should be developed as a first step. As indicated in the template, long-term objectives may address issues related to stock conservation, ecosystems, stewardship, socio-economics, compliance and other relevant considerations. Each long-term objective should be supported by one or more short-term objective(s), which are specific for the duration of the plan. It is these short-term objectives that drive the development of the IFMP management measures (IFMP Section 7), shared stewardship arrangements (IFMP Section 8) and compliance plan (IFMP Section 9).

In developing IFMP objectives, consideration should be given to existing DFO processes which may have already developed objectives specific to the fishery, species and habitats addressed in the plan. These would include objectives outlined in SARA Recovery Strategies/Action Plans/Management Plans and Marine Protected Area (MPA) Management Plans, as well as Conservation Objectives for LOMAs developed under the auspices of Canada's Oceans Action Plan. Where appropriate, such objectives should be incorporated into the IFMP.

3.2.7 Access and Allocation (IFMP Section 6)

As noted by the Atlantic Fisheries Policy Review (AFPR), uncertainty in access and allocations creates instability that undermines the integrity of fisheries management and jeopardizes efforts to achieve sustainable use and a conservation ethic among user groups. The inclusion of access and allocation information within an IFMP (particularly multi-year documents) promotes a sense of stability and transparency. Such information is best provided in a table format, where possible. Access and allocations should consider all potential user groups (i.e. recreation, aquaculture, Aboriginal, etc.), not just commercial fisheries. Where appropriate (i.e., relatively stable resource), long-term sharing arrangements should also be presented within the IFMP. Temporary allocations should also be discussed where relevant.

It is essential that every IFMP includes a statement noting that the Minister can, for reasons of conservation or for any other valid reasons, modify access, allocations and sharing arrangements as outlined in the IFMP in accordance with the powers granted pursuant to the *Fisheries Act*. In circumstances where changes to access, allocations and sharing arrangements are required during the life of the IFMP (i.e., new legal obligations, revised conservation objectives), the updated information should be presented in the appendices.

3.2.8 Management Measures for the Duration of the Plan (IFMP Section 7)

Management Measures for the Duration of the Plan outlines the controls or "rules" adopted for the fishery for the period of the plan, including the stock conservation and ecosystem management measures. These would include such measures as TAC, seasons, gear restrictions, monitoring tools, conservation harvesting techniques, selective fishing requirements, financial arrangements with industry and habitat protection. Management measures should be developed in the context of addressing the IFMP's short-term objectives (as outlined in IFMP Section 5).

In order to implement the risk-based management decision making framework using the precautionary approach in a fishery, harvest decision rules are a critical component of an IFMP. These rules should be precise and provide details on the harvest rates and other management procedures required in each of the stock status zones (i.e. critical, cautious and healthy) or steps within a zone, as described in IFMP Section 2. While informal harvest rules (i.e. those developed outside the precautionary approach) are encouraged within the IFMP, caution is required to ensure that these are not presented as harvest

decision rules compliant with the fishery decision-making framework incorporating the precautionary approach adopted by DFO.

Under SARA, species listed as either threatened or endangered are subject to prohibitions, which apply to harm to the species itself, as well as to its residence and/or critical habitat (if applicable). These prohibitions may also be extended to species listed as extirpated if re-introduction is deemed feasible. IFMPs should include a list of all SARA listed species impacted by the fishery, as well as control measures required to address these prohibitions. If harm to SARA listed species is authorized through SARA permits or Recovery Strategies, these should be also discussed, along with any associated mitigation requirements (i.e. live release, reporting requirements). While prohibitions do not apply to species listed as special concern, any such species impacted by the fishery should also be described, along with any associated mitigation requirements. Existing SARA Recovery Strategies, Action Plans and Management Plans should be referenced. In the absence of such plans, consideration should be given to allowable harm limits documented through the Recovery Potential Assessment (RPA) process.

For single-year plans, management measures should be presented in the main text of the IFMP. For multi-year plans, this information should be provided in the appendices and updated annually.

3.2.9 Shared Stewardship Arrangements (IFMP Section 8)

As defined by AFPR, stewardship refers to the care, supervision or management of something, especially the careful and responsible management of something entrusted to one's care. In the context of fisheries management, stewardship is often referenced in regards to "shared stewardship", whereby participants will be effectively involved in fisheries management decision-making processes at appropriate levels, will contribute specialized knowledge and experience, and share in accountability for outcomes.

The IFMP should include a discussion of any co-management and other initiatives (i.e. Integrated Management activities through the Oceans Program) that support shared-decision making and foster a sense of shared stewardship amongst stakeholders. Such initiatives should aim to meet those shared stewardship objectives specified in IFMP Section 5. If Joint Project Agreements (JPAs) are involved in shared stewardship initiatives, these must not be mentioned in any substantive way that makes the IFMP subject to it. JPAs are discussed further in this guidance document (6.0 Legal Context).

It should be noted that shared stewardship does not include legislated co-management arrangements established under land claim agreements. These arrangements are outlined in IFMP Section 1.

3.2.10 Compliance Plan (IFMP Section 9)

To be completed.

3.2.11 Performance Review (IFMP Section 10)

This section should outline measurable indicators to determine whether or not those objectives outlined in IFMP Section 5 are being achieved and those management issues outlined in IFMP Section 4 are being addressed. These indicators may include those specifically developed for the IFMP, as well as existing evaluation processes such as the Fisheries Checklist. Potential performance indicators include:

- Was the IFMP developed through a consultative process which includes all relevant stakeholders for that fishery?
- Were objectives for ecosystem factors met, partially met or not met?
- Were objectives for the target stock met, partially met or not met?

A summary of the post-season performance review process is also encouraged. See section 5.0 of this document for further information on the annual review process.

It is beneficial to include the results of the previous year's annual review as an appendix to the IFMP. For multi-year IFMPs, this information should be updated annually. In instances where a post-season review results in a detailed report, a summary of that report is suitable for inclusion into the IFMP.

3.2.12 Glossary and Appendices

A glossary should be included at the end of each IFMP to assist those stakeholders who may not be familiar with the terminology frequently used within DFO and fisheries management environment. A glossary of sample terms is presented in Appendix C of this guidance document to assist those responsible for developing IFMPs.

The IFMP appendices serve several functions. For multi-year plans, annual updates of stock assessments, management measures and compliance plans will be presented here rather than in the main text of the IFMP. Results of the previous year's post season review (including landings, values, etc) should also be presented in the appendices, as well as any required updates of access, allocations and sharing arrangements. Other miscellaneous documents associated with the IFMP, including press releases, terms of references (TOR) for associated advisory groups and sign-off page (where multi-jurisdictional approvals are required), may also be presented in the appendices.

IFMPs should always include Department contact information for those departmental staff and stakeholders requiring additional information. Contact information is best presented as an appendix.

Through a Memorandum of Understanding with Transport Canada, DFO has committed to invite Transport Canada and Canadian Coast Guard representatives to participate in the regional fisheries management plan development processes, including participation at regional fisheries advisory committee meetings. DFO has also committed to ensuring that safety considerations are outlined in every fisheries management plan. As such, all measures outlined in an IFMP must be developed in full consideration of safety-at-sea issues. Detailed safety-at-sea considerations and measures may also be presented as an appendix. For reference, a sample of safety-at-sea text, as developed by Pacific Region, is provided in Appendix D of this guidance document.

3.3 Role of the "Lead" Sector

For each section of the IFMP template, a DFO "lead" sector has been identified. It is anticipated that the lead sector will be responsible for gathering and consolidating information for the section in question, and ultimately write the associated text. However, it is understood that the lead sector may not hold all

relevant information and will be required to consult with other sectors, jurisdictions and stakeholders for completion of the text. This will further promote the integrated nature of the IFMP process. Ultimately, Resource Management is responsible for initiating and coordinating the overall IFMP development process.

Where land claim agreements exist, DFO and the co-management board(s) will collaborate and establish leads for various sections of the IFMP, on a fishery-by-fishery basis.

3.4 Duration of the Plan

IFMPs can be either single-year or multi-year documents, and as such the IFMP template (Appendix A) has been developed to accommodate both approaches. The development of multi-year documents is encouraged, as they reduce the annual workload for departmental staff, reduce the problem of plans being released late (after the initial year) and can provide operational stability for both DFO and fish harvesters. Multi-year plans are recommended by the AFPR as a means of moving towards long-term sharing arrangements.

Single year documents will contain the most recent information regarding stock assessment, management measures and compliance plan directly within the main body of the document. For multi-year documents, such information will be presented within the IFMP appendices, which will be updated on an annual basis.

4.0APPROVALS PROCESS

The approval of an IFMP should be delegated down to the lowest possible management level, particularly for non-controversial fisheries and/or where there is consensus between all stakeholders. However, IFMPs should be approved by a manager who is at a level above the person leading the development of an IFMP. As a default, RDG approval should be considered the minimal requirement. The rationale for this would be to limit the Minister's involvement to controversial situations or to issues which have policy implications. However, the Minister would still remain accountable to Parliament for all IFMPs. Delegating approval authority to lower levels would bring decisions closer to stakeholders, and support the Department's goal of increasing stakeholder participation in the decision-making process in the spirit of shared stewardship and co-management. Even when a plan is approved by an RDG, it should always be sent to National Headquarters for information before being released publicly (including posting on the internet).

Ministerial approval of an IFMP is required under the following circumstances:

- Changes to access, allocation and sharing arrangement without stakeholder consensus;
- Major TAC decrease/increase;
- TAC higher than the level recommended by Science;
- Issuance of additional licences;
- International implications (i.e., fishing outside 200-mile); and
- Introduction of major and/or controversial policy or management measures.

For those IFMPs involving multiple regions (i.e. an Atlantic-wide stock), yet not falling into the category of those plans requiring Ministerial approval, ADM-Fisheries and Aquaculture Management approval would be a suitable course of action. Where IFMPs are developed in association with co-management boards established under land claim agreements, plans must be approved as per the terms of that agreement.

The goal with all IFMPs will be to approve and release the plan at least one month before the start of the fishery.

5.0ANNUAL REVIEW

An annual performance review (or post-season review) of the effectiveness of the IFMP is a crucial part of the IFMP process. Such a review helps to determine the effectiveness of the year's management measures and identify areas for improvement. It is also part of the Auditor-General's government-wide requirements to establish performance measures for the effectiveness of programs.

There are four main elements that should be considered in the IFMP review:

- assessment of the IFMP development process;
- assessment of the plan itself;
- assessment of the effectiveness of the measures implemented (outputs and outcomes); and
- recommendations and suggestions for improvement.

Performance reviews also provide an opportunity to examine harvest decision rules, and test whether they have been working and are compliant with the precautionary approach. However, reviews of harvest decision rule may not be required on an annual basis.

Ideally, the review process should involve all members of the associated advisory committee and relevant DFO sectors (i.e., Science, Resource Management, Conservation and Protection, Aboriginal Policy and Governance, Oceans and Habitat, Policy and Economics, Aquaculture, etc). As well, the review should be completed in a timely fashion so that suggestions for improvement can be adopted for the upcoming season (i.e. complete review immediately after the close of the season).

6.0LEGAL CONTEXT

IFMPs are not legally binding instruments; this must be clearly stated at the beginning of every IFMP (see Appendix B). An IFMP may be altered at any time by the Minister for conservation or any other reason under the discretionary powers conferred to him or her by the *Fisheries Act*. This discretionary power applies whether the IFMP is single-year or multi-year in scope. To avoid any confusion, care must be taken to ensure that the IFMP wording does not resemble that of a binding agreement; the IFMP should describe the fishery rather than set out what could be considered a series of obligations. For example, it would be appropriate to state in the IFMP that "lobster traps are equipped with *x* to prevent the capture of undersized lobster". The licence conditions linked to the IFMP could be more prescriptive. For example, a condition of licence could be: "lobster traps *shall* be equipped with *x,* etc."

At the operational level, activities described in the plan are not optional and should form part of the annual work plan of DFO managers. For licence holders, activities in the plan will be reflected in licence conditions. With this in mind, care should be taken to ensure that the measures included in the IFMP are realistic and achievable.

Legally binding agreements between DFO and fishers (or other stakeholders), otherwise called JPAs, may be developed under the co-management approach or as a result of other negotiations. In an IFMP document, a JPA must not be mentioned in any substantive way that makes the IFMP subject to it. It is important to keep the IFMP independent of the JPA so that the IFMP remains valid and does not adversely affect Ministerial discretion with respect to the management of the resource should the JPA fail.

7.0COMMUNICATIONS

IFMPs are ultimately public documents. Their purpose is not only to outline the specific objectives and management measures of a fishery, but also to communicate the basic information on a fishery and its management both within DFO and to outside parties. As such, the language of IFMPs must be easily understandable by a range of readers since the intended audience is broad (i.e. DFO personnel, fish harvesters and the general public). A glossary of fisheries management terms used in the IFMP should also be included, as this will be beneficial in making the document understandable to a wider audience.

Communications officers should be engaged early in the IFMP process to ensure that documents meet quality requirements for publication, and to ensure that there is time to prepare a communications plan for the IFMP announcement and implementation, when needed.

Upon completion, IFMPs should be posted on either the DFO regional or headquarters internet sites one month before the opening of the fishery. For many fisheries, distribution of hardcopies of IFMPs to DFO staff, other jurisdictions, stakeholders and the general public will not be required, as the document will be available on the internet.

8.0SCHEDULING

An IFMP implementation schedule has been developed for all major fisheries in Canadian waters, and has been outlined in Appendix E of this guidance document. It is anticipated that IFMPs, developed under the auspices of the format presented in this guidance document, will be developed for all major Canadian fisheries by the end of the 2010/11 fiscal year.

IFMP Template

(Draft – November 17, 2008)

Cover Page:

- Indicate species (including scientific name(s)), fishing area(s) and year(s) covered by the plan. Use standard DFO and Government of Canada word-marks, and (where available) an illustration(s) of the species.

Foreword:

- All IFMPs must include the following text in the foreword:
    - This IFMP is not a legally binding instrument which can form the basis of a legal challenge. The IFMP can be modified at any time and does not fetter the Minister's discretionary powers set out in the *Fisheries Act*. The Minister can, for reasons of conservation or for any other valid reasons, modify any provision of the IFMP in accordance with the powers granted pursuant to the *Fisheries Act*.

Table of Contents:

1. Overview of the Fishery: (*Lead - Resource Management*)

- Provide a brief overview of the fishery, including:
    - **History:** Provide a brief history of the fishery.
    - **Type(s) of Fishery:** Commercial, FSC, recreational, etc.
    - **Participants:** Include relevant information such as numbers of licence holders, numbers of vessels, number of communities (in case of subsistence fisheries) and distribution of participants.
    - **Location of the Fishery:** Describe the management areas/zones where fishing occurs (i.e. regulatory zones and specific areas of vessel operation) and distribution of fishing effort. Best presented through maps.
    - **Fishery Characteristics:** Describe the gear types utilized in the fishery (i.e. fixed gear, mobile gear, etc), including numbers for each if possible, and type of method used to manage the fishery (i.e. seasons, competitive vs. IQ, input vs. output control, etc.), as well as the general timeframe (i.e. season) of when the fishery occurs.
    - **Governance:** Briefly describe key legislation and regulations, as well as types of committees and/or legislative land claims which are part of the decision making process (based on zones, areas, regions, international considerations).
    - **Approval Process:** Describe the general management decision-making process (i.e. decisions made by Area Director, RDG or Minister).

2. Stock Assessment and Status: (*Lead - Science*)

- Provide a brief overview of stock science and status, including:
    - **Biological Synopsis:** Provide a brief overview outlining the main biological characteristics of the species with emphasis on the aspects which impact on management of the species. Factors to be covered include range (both globally and Canadian), populations/stock structure, habitat requirements (including key location where applicable), migration routes and reproductive characteristics (i.e. season, behaviour, fecundity, growth rates, spawning grounds).

- **Ecosystem Interactions:** Briefly describe interactions with other species and the physical environment. Where the information is available briefly describe the effect of climate regime changes on stock status, particularly recruitment and stock productivity.
- **Aboriginal Traditional Knowledge/Traditional Ecological Knowledge:** Where available, provide brief overview of ATK/TEK for the species.
- **Stock Assessment:** Provide a brief overview of the assessment process for the stock(s), including types of data sources utilized (i.e. research vessel trawl surveys, tagging, index fisheries, CPUE, landing statistics, sentinel fisheries, etc.) and frequency of assessment. For single year plans, provide a summary of the most recent assessment results. For multi-year plans, assessment results are to be provided in the appendices (Appendix 1) and updated whenever new assessments are completed.
- **Stock Scenarios:** Briefly describe stocks prospects (i.e. trends) for period of the plan, and beyond, if available.
- **Precautionary Approach (PA):** Where available, provide a brief overview of any PA references established for this resource, including removal references, limit reference points, and (in conjunction with FAM and resource users) upper stock reference points
- **Research:** Provide a brief overview of research projects being conducted during the period of the plan and their purpose. Also include any research needs not currently being addressed. Consider not just the target species, but also research on associated by-catch and habitat.

3. Economics of the Fishery: (*Lead - Policy and Economics*)

- Provide a brief overview of economic conditions and social, cultural and economic issues. Use charts and figures where applicable. When extensive analysis is undertaken, summarize and provide reference to separate analytical document.
  - **Socio-Economic Profile**. Information may include, but is not limited to, time series of TAC, landings and landed value; number of participating licence holders and crew by income level and source(s) of fishing income; geographic concentration of participants and main communities/ports; fleet organization and economic relationships with other fisheries; size/value of recreational and Aboriginal fisheries; number of fish processors, jobs and product value.
  - **Viability and Market Trends:** Assess major issues and trends in fleet viability, and provide quantitative analysis where possible (e.g. Cost and Earnings Survey data). Additional information may include an analysis of main export markets and trends (destinations, quantity, price), trends in world market for same species (and substitutes, where important), and emerging opportunities for market expansion and/or product improvement.
  - **Analysis of Specific Fisheries Management Measures:** Upon request from Resource Management, additional economic analysis may be undertaken when, for example, major changes in TAC, regulations, or management regimes are under consideration. Specific scenarios for analysis will be provided to Policy-Economics, and results will be integrated into IFMPs where appropriate.

4. Management Issues: (*Lead - Resource Management*)

- Provide an overview of current issues in the fishery, including those related to the target species, as well as by-catch and ecosystem concerns. Potential examples of management issues include:
  - ***Fisheries Issues*** such as conflicts between gear sectors, catch monitoring, by-catch problems and other resource user issues.
  - ***Depleted Species Concerns***, including species assessed by COSEWIC, listed under SARA and/or CITES, and moratorium species. References existing recovery strategies/management plans where appropriate.

- ***Oceans and Habitat Considerations***, including habitat impacts and discussions of ecologically significant areas that have been identified and documented within the geographic range of the fishery (including marine protected areas (MPAs). Where information is available on the effect of climate regime change on stock status, it should be considered when developing harvest decision rules and other management measures.
- ***Gear Impacts***, including losses and resulting impacts.
- ***International Issues***

5. Objectives: (*Lead - Resource Management*)

- Clearly state long-term objectives for sustainable fisheries under the following potential headings:
  - **Stock Conservation**
  - **Ecosystem**
  - **Stewardship**
  - **Social, cultural, and economic (i.e. commercial, recreational, Aboriginal)**
  - **Compliance**
- For each long-term objective, outline short-term objectives specific for the duration of the plan.

6. Access and Allocation: (*Lead - Resource Management*)

- Provide the access and allocation of the fisheries resource (including commercial, aquaculture, recreational, FSC, subsistence) under the following headings:
  - **Sharing Arrangements**
  - **Quotas and Allocations**
- All IFMPs must include a statement in this section noting that the Minister can, for reasons of conservation or for any other valid reasons, modify access, allocations and sharing arrangements as outlined in this IFMP in accordance with the powers granted pursuant to the *Fisheries Act.*

7. Management Measures for the Duration of the Plan: (*Lead - Resource Management*)

- For single-year plans, provide stock conservation and ecosystem management measures to meet Section 5 objectives, including the following, where applicable:
  - **Total Allowable Catch (TAC)**
  - **Fishing Seasons/Areas**
  - **Control and Monitoring of Removals:** Include measures to control and monitor both target and by-catch species in commercial, FSC, bait, recreational and other fisheries. These entail gear restrictions and limits, observer coverage, dockside monitoring, logbooks, hailing, VMS, by-catch protocols, discarding protocols, small fish/soft-shell protocols, conservation harvesting techniques and selective fishing requirements. Where relevant, include any mandatory financial arrangements required with fish harvesters and other stakeholders.
  - **Decision Rules:** Include specific relevant decision rules applicable to the current season, with reference to PA (i.e. critical, cautious and healthy).
  - **SARA Requirements**
  - **Licensing**
  - **Habitat Protection Measures**
- For multi-year plans, this information is to be provided in the appendices (Appendix 2) and updated annually.

8. Shared Stewardship Arrangements: (*Lead - Resource Management*)

- Highlight any shared stewardship arrangements to meet Section 5 objectives, including increased shared decision-making.

9. Compliance Plan: (*Lead - Conservation and Protection*)

- For single-year plans, describe priorities as set out in enforcement plans to meet Section 5 objectives.
- For multi-year plans, this information is to be provided in the appendices (Appendix 3) and updated annually.

10. Performance Review: (*Lead - Resource Management*)

- **Management Objectives Evaluation Criteria:** Outline indicators that will be used to determine if the plan objectives (Section 5) are met. These may include indicators specifically developed for this plan, as well as other existing tools (i.e. fishery checklist). The results of the previous year's review (including landings, values, etc. where appropriate) are to be provided in the appendices (Appendix 4).

Glossary:

Appendices:

- **Appendix 1:** Stock Assessment Results; to be updated whenever a new assessment is completed *(multi-year plans only)*. See Section 2.

- **Appendix 2:** Management Measures for the Duration of the Plan; to be updated annually for the duration of the plan *(multi-year plans only)*. See Section 7.

- **Appendix 3:** Enforcement Measures for Duration of the Plan; to be updated annually for the duration of the plan (*multi-year plans only*). See Section 9.

- **Appendix 4:** Post-Season Review; provide the results of the previous year's annual review (i.e. progress on meeting plan objectives), as well as information on previous year's landings, values, etc. where appropriate. Where available, include the Fisheries Checklist. See Section 10.

- **Appendix 5:** Departmental contact(s)

- **Appendix 6:** Safety at Sea

- **Appendix 7:** Map of Fishing Area

- **Other:** Additional appendices may include information on consultative groups and associated TOR, press releases, sign-off page for multi-jurisdictional approvals, etc.

IFMP Foreword

(Standard text which will be included in every IFMP)

The purpose of this Integrated Fisheries Management Plan (IFMP) is to identify the main objectives and requirements for the (*name of fishery here*) fishery in (*identify area(s) covered by the plan*), as well as the management measures that will be used to achieve these objectives. This document also serves to communicate the basic information on the fishery and its management to DFO staff, legislated co-management boards and other stakeholders. This IFMP provides a common understanding of the basic "rules" for the sustainable management of the fisheries resource.

This IFMP is not a legally binding instrument which can form the basis of a legal challenge. The IFMP can be modified at any time and does not fetter the Minister's discretionary powers set out in the *Fisheries Act*. The Minister can, for reasons of conservation or for any other valid reasons, modify any provision of the IFMP in accordance with the powers granted pursuant to the *Fisheries Act*.

Where DFO is responsible for implementing obligations under land claim agreements, the IFMP will be implemented in a manner consistent with these obligations. In the event that an IFMP is inconsistent with obligations under land claim agreements, the provisions of the land claim agreements will prevail to the extent of the inconsistency.

_____

Signature and title of DFO approval authority

_____

***Optional** - Signature and title of other approval authority (i.e. authority established under land claim agreement)*

Glossary Terms

(These are examples of terms that may be found in an IFMP glossary. Additional terms may be added depending on each individual IFMP)

Aboriginal Traditional Knowledge (ATK): Knowledge that is held by, and unique to Aboriginal peoples. It is a living body of knowledge that is cumulative and dynamic and adapted over time to reflect changes in the social, economic, environmental, spiritual and political spheres of the Aboriginal knowledge holders. It often includes knowledge about the land and its resources, spiritual beliefs, language, mythology, culture, laws, customs and medicines.

Abundance: Number of individuals in a stock or a population.

Age Composition: Proportion of individuals of different ages in a stock or in the catches.

Anadromous: An anadromous species, such as salmon, spends most of its life at sea but returns to fresh water grounds to spawn in the river it comes from.

Area/Subarea:

Biomass: total weight of all individuals in a stock or a population.

By-catch: The unintentional catch of one species when the target is another.

Catch per Unit Effort (CPUE): The amount caught for a given fishing effort. Ex: tons of shrimp per tow, kilograms of fish per hundred longline hooks.

CGIAC: Commercial Groundfish Integrated Advisory

CIC: Commercial Industry Caucus: A sub-committee of the CGIAC consisting of commercial groundfish vessel representatives and processors.

Communal Commercial Licence: Licence issued to First Nations organizations pursuant to the *Aboriginal Communal Fishing Licences Regulations* for participation in the general commercial fishery.

Conservation Harvesting Plan (CHP): Fishing plans submitted by all gear sectors which identify harvesting methods aimed at minimizing the harvest of small fish and by-catch of groundfish.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC): Committee of experts that assess and designate which wild species are in some danger of disappearing from Canada.

Discards: Portion of a catch thrown back into the water after they are caught in fishing gear.

Dockside Monitoring Program (DMP): A monitoring program that is conducted by a company that has been designated by the Department, which verifies the species composition and landed weight of all fish landed from a commercial fishing vessel.

EBSA (Ecologically and Biologically Significant Area): an EBSA is an area that has particularly high Ecological or Biological Significance, and should receive a greater-than-usual degree of risk aversion in management of activities in order to protect overall ecosystem structure and function within the LOMA.

Ecosystem-Based Management: Taking into account of species interactions and the interdependencies between species and their habitats when making resource management decisions.

Escapement: Reference to salmon - the number of fish escaping the fishery and reaching the spawning grounds.

Fishing Effort: Quantity of effort using a given fishing gear over a given period of time.

Fishing Mortality: Death caused by fishing, often symbolized by the Mathematical symbol F.

Fixed Gear: A type of fishing gear that is set in a stationary position. These include traps, weirs, gillnets, longlines and handlines.

Food, Social and Ceremonial (FSC): A fishery conducted by Aboriginal groups for food, social and ceremonial purposes.

Gillnet: Fishing gear: netting with weights on the bottom and floats at the top used to catch fish. Gillnets can be set at different depths and are anchored to the seabed.

Groundfish: Species of fish living near the bottom such as cod, haddock, halibut and flatfish.

Handlining: Fishing using a line with usually one baited hook and moving it up and down in a series of short movements. Also called "jigging".

Landings: Quantity of a species caught and landed.

LOMA (Large Ocean Management Area): Integrated management planning in Canada is focused in five high priority LOMAs, these are: Placentia Bay and the Grand Banks, the Gulf of St. Lawrence, the Scotian Shelf, the Beaufort Sea and the Pacific North Coast.

Longlining: Using long lines with a series of baited hooks to catch fish.

Maximum Sustainable Yield (MSY): Largest average catch that can continuously be taken from a stock.

Mesh Size: Size of the mesh of a net. Different fisheries have different minimum mesh size regulation.

Mobile Gear: A type of fishing gear that is drawn through the water by a vessel to entrap fish. These include otter trawls and Danish/Scottish Seines.

Natural Mortality: Mortality due to natural causes, symbolized by the mathematical symbol M.

Observer Coverage: When a licence holder is required to carry an officially recognized observer onboard their vessel for a specific period of time to verify the amount of fish caught, the area in which it was caught and the method by which it was caught.

Otolith: Structure of the inner ear of fish, made of calcium carbonate. Also called "ear bone" or "ear stone". Otoliths are used to determine the age of fish: annual rings can be observed and counted. Daily increments are visible as well on larval otoliths.

Pelagic: A pelagic species, such as herring, lives in midwater or close to the surface.

Population: Group of individuals of the same species, forming a breeding unit, and sharing a habitat.

Precautionary Approach: Set of agreed cost-effective measures and actions, including future courses of action, which ensures prudent foresight, reduces or avoids risk to the resource, the environment, and the people, to the extent possible, taking explicitly into account existing uncertainties and the potential consequences of being wrong.

Purse Seine: Large net used to encircle fish from a boat called a "seiner" and equipped with a wire rope on the bottom to draw the net together. A small boat, called "skiff", participates in manoeuvring the net.

Quota: Portion of the total allowable catch that a unit such as vessel class, country, etc. is permitted to take from a stock in a given period of time.

RCA: Rockfish Conservation Area, which is an area that is closed for the protection of various inshore rockfish species to fishing activities that negatively impact rockfish.

Recruitment: Amount of individuals becoming part of the exploitable stock e.g. that can be caught in a fishery.

Research Survey: Survey at sea, on a research vessel, allowing scientists to obtain information on the abundance and distribution of various species and/or collect oceanographic data. Ex: bottom trawl survey, plankton survey, hydroacoustic survey, etc.

Species at Risk Act (SARA): The Act is a federal government commitment to prevent wildlife species from becoming extinct and secure the necessary actions for their recovery. It provides the legal protection of wildlife species and the conservation of their biological diversity.

Spawner: Sexually mature individual.

Spawning Stock: Sexually mature individuals in a stock.

Stock: Describes a population of individuals of one species found in a particular area, and is used as a unit for fisheries management. Ex: NAFO area 4R herring.

Stock Assessment: Scientific evaluation of the status of a species belonging to a same stock within a particular area in a given time period.

Total Allowable Catch (TAC): The amount of catch that may be taken from a stock.

Traditional Ecological Knowledge (TEK): A cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment.

Tonne: Metric tonne, which is 1000kg or 2204.6lbs.

Trawl: Fishing gear: cone-shaped net towed in the water by a boat called a "trawler". Bottom trawls are towed along the ocean floor to catch species such as groundfish. Mid-water trawls are towed within the water column.

Validation: The verification, by an observer, of the weight of fish landed.

Vessel Size: Length overall.

Year-class: Individuals of a same stock born in a particular year. Also called "cohort".

Safety at Sea

(Sample of text developed by Pacific Region - Subject to change without notice)

Vessel owners and masters have a duty to ensure the safety of their crew and vessel. Adherence to safety regulations and good practices by owners, masters and crew of fishing vessels will help save lives, protect the vessel from damage and protect the environment. All fishing vessels must be in a seaworthy condition and maintained as required by Transport Canada (TC), WorkSafeBC, and other applicable agencies. Vessels subject to inspection should ensure that the certificate of inspection is valid for the area of intended operation.

In the federal government, responsibility for shipping, navigation, and vessel safety regulations and inspections lies with Transport Canada (TC); emergency response with the Canadian Coast Guard (CCG) and DFO has responsibility for management of the fisheries resources. In B.C., WorkSafeBC has jurisdiction over health and safety issues in commercial fishing, which includes the health and safety of the crew and the design, construction and use of fishing equipment on the vessel. WorkSafeBC and TCMS entered into a Memorandum of Understanding (MOU) on fishing vessel safety that addresses jurisdiction. The MOU states that each party will work co-operatively to ensure vessels and their crews remain healthy and safe. DFO (Fisheries and Aquaculture Management (FAM) and CCG) and TC have an MOU to formalize cooperation and to establish, maintain and promote a safety culture within the fishing industry.

Before leaving on a voyage the owner, master or operator must ensure that the fishing vessel is capable of safely making the passage. Critical factors for a safe voyage include the seaworthiness of the vessel, vessel stability, having the required safety equipment in good working order, crew training, and knowledge of current and forecasted weather conditions.

Useful publications include Transport Canada Publication TP 10038 '*Small Fishing Vessel Safety Manual*' which can be obtained from TC or printed from their website:

www.tc.gc.ca/MarineSafety/Tp/Tp10038/tp10038e.htm.

There are several issues that are important for fishing vessel safety, including three priority areas: vessel stability, emergency drills, and cold water immersion.

Fishing Vessel Stability

Vessel stability is paramount for safety. Care must be given to the stowage and securing of all cargo, skiffs, equipment, fuel containers and supplies, and also to correct ballasting. Fishers must be familiar with their vessel's centre of gravity, the effect of liquid free surfaces on stability, loose water or fish on deck, loading and unloading operations and the vessel's freeboard. Know the limitations of your vessel; if you are unsure contact a reputable naval architect, marine surveyor or the local Transport Canada Marine Safety office.

Fishing vessel owners are required to develop detailed instructions addressing the limits of stability for each of their vessels. The instructions need to be based on a formal assessment of the vessel by a qualified naval architect and include detailed safe operation documentation kept on board the vessel. Examples of detailed documentation include engine room procedures, maintenance schedules to ensure watertight integrity, and instructions for regular practice of emergency drills.

Fish Safe

Vessel masters and crew are encouraged to become more knowledgable about vessel stability. FishSafe BC developed the Fish Safe Stability Education Course, which is available to all fishermen who want to improve their understanding of stability and find practical application to their vessel's operation.

Fish Safe is coordinated by Gina Johansen and directed by the Fish Safe Advisory Committee (membership is open to all interested in improving safety on board). The advisory committee meets quarterly to discuss safety issues and give direction to Fish Safe in the development of education and tools for fishermen.

Fish Safe also works closely with WorkSafeBC to improve the fishing claims process.

Gina Johansen, Safety Coordinator
Fish Safe
1100-1200 West 73rd Avenue
Vancouver, BC V6P 6G5
Phone: 604-261-9700
Fax: 604-267-3015
www.fishsafebc.com

Emergency Drill Requirements

The master must establish procedures and assign responsibilities to each crew member for emergencies such as crew member overboard, fire, flooding, abandoning ship and calling for help.

Since July 30, 2003 all crew with more than 6 months at sea are required to have taken minimum Marine Emergency Duties (MED) training or be registered for such training. MED provides a basic understanding of the hazards associated with the marine environment; the prevention of shipboard incidents (including fires); raising and reacting to alarms; fire and abandonment situations; and the skills necessary for survival and rescue.

Cold Water Immersion

Drowning is the number one cause of death in B.C.'s fishing industry. Cold water is defined as water below 25 degrees Celsius, but the greatest effects occur below 15 degrees. BC waters are usually below 15 degrees. The effects of cold water on the body occur in four stages: cold shock, swimming failure, hypothermia and post-rescue collapse. Know what to do to prevent you or your crew from falling into the water and what to do if that occurs. More information is available in the WorkSafe Bulletin *Cold Water Immersion* (available from the WorkSAafe BC website).

Other Issues

Weather

Vessel owners and masters are reminded of the importance of paying close attention to current weather treads and forecasts during the voyage. Marine weather information and forecasts can be obtained on VHF channels 21B, Wx1, Wx2, Wx3, or Wx4. Weather information is also available from Environment Canada website at:

www.weatheroffice.ec.gc.ca/marine/region_03_e.html

Emergency Radio Procedures

Vessel owners and masters should ensure that all crew are able to activate the Search and Rescue (SAR) system early rather than later by contacting the Canadian Coast Guard (CCG). It is strongly recommended

that all fishers carry a registered 406 MHz Emergency Position Indicating Radio Beacon (EPIRB). These beacons should be registered with the National Search and Rescue secretariat. When activated, an EPIRB transmits a distress call that is picked up or relayed by satellites and transmitted via land earth stations to the Joint Rescue Co-ordination Centre (JRCC), which will task and co-ordinate rescue resources.

Fishers should monitor VHF channel 16 or MF 2182 Khz and make themselves and their crews familiar with other radio frequencies. All crew should know how to make a distress call and should obtain their restricted operator certificate from Industry Canada. However, whenever possible, masters should contact the nearest Canadian Coast Guard (CCG) Marine Communications and Traffic Services (MCTS) station (on VHF channel 16 or MF 2182 kHz) prior to a distress situation developing. Correct radio procedures are important for communications in an emergency. Incorrect or misunderstood communications may hinder a rescue response.

Since August 1, 2003 all commercial vessels greater than 20 metres in length are required to carry a Class D VHF Digital Selective Calling (DSC) radio. A registered DSC VHF radio has the capability to alert other DSC equipped vessels in your immediate area and MCTS that your vessel is in distress. Masters should be aware that they should register their DSC radios with Industry Canada to obtain a Marine Mobile Services Identity (MMSI) number or the automatic distress calling feature of the radio may not work.

A DSC radio that is connected to a GPS unit will also automatically include your vessel's current position in the Distress message. More detailed information on MCTS and DSC can be obtained by contacting a local Coast Guard MCTS centre (located in Vancouver**,** Victoria**,** Prince Rupert**,** Comox and Tofino**) or** from the Coast Guard website:

www.pacific.ccg-gcc.gc.ca

Collison Regulations

Fishers must be knowledgeable of the *Collision Regulations* and the responsibilities between vessels where risk of collision exists. Navigation lights must be kept in good working order and must be displayed from sunset to sunrise and during all times of restricted visibility. To help reduce the potential for collision or close quarters situations which may also result in the loss of fishing gear, fishers are encouraged to monitor the appropriate local Vessel Traffic Services (VTS) VHF channel, when travelling or fishing near shipping lanes or other areas frequented by large commercial vessels. Vessels required to participate in VTS include:

a) every ship twenty metres or more in length,
b) every ship engaged in towing or pushing any vessel or object, other than fishing gear,
c) where the combined length of the ship and any vessel or object towed or pushed by the ship is forty five metres or more in length; or
d) where the length of the vessel or object being towed or pushed by the ship is twenty metres or more in length.

Exceptions include:

a) a ship towing or pushing inside a log booming ground,
b) a pleasure yacht *less than* 30 metres in length, and
c) a fishing vessel that is *less than* 24 metres in length and not *more than* 150 tons gross.

More detailed information on VTS can be obtained by calling (604) 775-8862 or from Coast Guard website:

www.pacific.ccg-gcc.gc.ca/mcts-sctm/index_e.htm.

Buddy System

Fishers are encouraged to use the buddy system when transiting, and fishing as this allows for the ability to provide mutual aid. An important trip consideration is the use of a sail plan which includes the particulars of the vessel, crew and voyage. The sail plan should be left with a responsible person on shore or filed with the local MCTS. After leaving port the fisher should contact the holder of the sail plan daily or as per another schedule. The sail plan should ensure notification to JRCC when communication is not maintained which might indicate your vessel is in distress. Be sure to cancel the sail plan upon completion of the voyage.

WorkSafe BC

Commercial fishing is legislated by the requirements for diving, fishing and other marine operations found in Part 24 of the Occupational Health and Safety Regulation (OHSR). Many general hazard sections of the OHSR also apply. For example, Part 8: Personal Protective Clothing and Equipment addresses issues related to safety headgear, safety foot wear and personal floatation devices. Part 15 addresses issues on rigging, Part 5 addresses issues of exposure to chemical and biological substances, and Part 3 addresses training of young and new workers, first aid, and accident investigation issues. Part 3 of the Workers Compensation Act (WCA) defines the roles and responsibilities of owners, employers, supervisors and workers. The OHSR and the WCA are available from the Provincial Crown Printers or by visiting the WorkSafeBC website:

www.worksafebc.com

For further information, contact an Occupational Safety Officer (Shane Neifer, Terrace, (250) 615-6640), Pat Olsen, Richmond (604) 244-6477 or Mark Lunny, Courtney (250) 334-8732 or the Focus Sector Manager for fishing Bruce Clarke, Prince George, (250) 612-3708).

For information on projects related to commercial fishing contact Ellen Hanson (604) 233-4008 or Toll Free 1-888 621-7233 ext. 4008 or by email: Ellen.Hanson@worksafebc.com.

APPENDIX E

IFMP Implementation Schedule