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BRIEF ON BILL C-98 (THE CANADA OCEANS ACT)

**Presented to the Standing Committee on Fisheries and Oceans
October 24, 1995**

**Prepared by:
The Canadian Arctic Resources Committee (CARC) and
The Canadian Nature Federation (CNF)**

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SUMMARY OF RECOMMENDATIONS

1. ^{Rvt.} The three sections of Bill C-98 need to be better integrated. The process of integration will be materially assisted by the revision of the preamble and inclusion of a purposes clause. We suggest the following:

Preamble

Whereas healthy marine ecosystems are and will remain an essential precondition for healthy marine economies and communities;

Whereas the United Nations Convention on the Law of the Sea has entered into force.

Purposes

The purpose of this Act is to maintain, and where necessary, restore, healthy ecosystems for Canada's oceans. To that end, the Act has the following objectives:

- (a) to affirm, in domestic law, Canada's rights and obligations under international law with respect to internal waters, territorial sea, contiguous zone, exclusive economic zone, and continental shelf;
 - (b) to foster the ecologically sustainable development of the resources of Canada's oceans and to promote the development of new technologies, new services, and new value-added markets for marine resources and products;
 - (c) to conserve Canada's marine ecosystems and biodiversity through various marine conservation measures, including a system of marine protected areas; and,
 - (d) to promote through traditional ecological knowledge and scientific research, an understanding of oceans, ocean processes, marine resources and marine ecosystems which can inform cooperative management of human activity in the marine environment.
2. Because of the central importance of the concept of ecosystem health in the purposes section, we suggest the addition of the following definition of that term.

"Ecosystem health" means an ecosystem in which, over time:

- a. the food webs are fully functional;
- b. key species are preserved as key species;
- c. genetic, species, and population diversity are maintained;
- d. commercial species are maintained at, and where necessary, restored to ecologically sustainable levels.

Note: A food web that is fully functional is one that not impaired by ("virtually free") from contaminants. The reference to "over time" is intended to capture the ecosystem as a dynamic unit. The reference to a diversity of assemblages of species is intended to capture the maintenance of different trophic levels.

3. **Bill C-98 should be explicitly premised upon the concept of ecosystem management. We therefore suggest a short and pithy statement to replace the existing s.30 as follows:**

30. The national strategy shall have as its objective the maintenance, and where necessary, restoration of the health of marine ecosystems, through the use of integrated management, ~~for the purposes of ecologically sustainable use and development.~~

4. **Bill C-98 should provide an explicit link between the marine conservation strategy and the plans; it should stipulate the planning unit as well some of the necessary elements of the plans including, goals, protected areas, and priorities for action and implementation. We suggest the following changes:**

- the words "Consistent with the national strategy,..." should be inserted at the beginning of s.31;
- s.28 should be deleted in order to allow for maximum cooperation in managing the links between marine and terrestrial areas.
- the statute should prescribe a non-exhaustive list of matters that should be addressed by plans. Bill C-98 might, for example, provide that, where appropriate, management plans shall address the following:¹
 - a. *The need for spatially and temporally protected areas within the geographical area of the plan in order to protect representative areas and/or specially sensitive or valued ecosystem components including spawning areas, areas of special value for marine species;*
 - b. *Areas within which different economic activities, ranging from tourism to non-renewable resource exploration and extraction, can occur;*
 - c. *Areas within which ocean dumping, dredging and bottom dragging harvesting devices should not be permitted;*
 - d. *The priority to be attached to particular plan components, the preferred order for implementation, and a timetable by which planning goals are to be achieved;*
 - e. *Research plans, indicating the research necessary in order to secure an understanding of ecosystem processes at a macro-level;*
 - f. *Transportation requirements, and the way in which they are to be met, including, where appropriate, the need to establish vessel traffic management systems;*
 - g. *Identification of endangered and threatened species within the planning unit and plans for protection and recovery;*

¹ Most of the suggestions can be traced to the three background papers that CARC and CNF commissioned.

- h. Specific proposals to maintain, and where necessary, restore, ecosystem health within the region;*
- i. A list of measurable ecosystem and economic performance goals against which progress is to be measured;*
- j. Identification of indicators of ecosystem health appropriate to the planning unit.*

This section could be included as s.31(2) of Bill C-98.

- 5. In the context of Bill C-98, matters ascribed to the Minister need to be broadened in order to remain consistent with the intent of Bill C-98. We suggest that s.4(a) of the Department of Fisheries and Oceans Act be consequentially amended to give the Minister a broader mandate as follows:**

4(a) oceans processes and marine ecosystems including fisheries;

- 6. The plans envisaged by s.32 are unduly limited by referring only to "activities". This excludes various terrestrial and marine policies and research plans which may affect the marine environment. To rectify this limitation, s.32(b) should be revised to read:**

32(b) ...with respect to all measures within these waters as well as those that may have a significant effect on these waters.

- 7. Bill C-98 should provide that a wide range of actors and stakeholders be involved in the strategic planning process including provinces, territories, aboriginal peoples and communities. This should be made explicit in ss. 32 and 33.**
- 8. The strategic planning process proposed by Bill C-98 should stipulate both a timetable and reporting obligations (for instance, reports on a regular basis every three, four, or five years). In our view, it would be reasonable to expect the strategy to be completed by December 31, 1997 and, when available, should be tabled in Parliament. The Department of Fisheries and Oceans is in a better position to recommend a timetable, for inclusion in the bill, on the development of the plans.**

For an example of a reporting requirement, see the Canadian Environmental Assessment Act, S.C. 1992, c.37, s. 71.

9. Bill C-98 should recognize the importance of scientific research for ecosystem management and should provide additional resources through a new Ocean Futures Program. The research responsibilities of the Minister should recognize the importance of traditional ecological knowledge.

- Bill C-98 should create a Ocean Futures Fund which, over a fixed period, would be used to support research intended to foster understanding of basic ecological processes.
- ss. 42 and 43 should be revised to include "traditional ecological knowledge" in the list of marine science functions.

10. Bill C-98 should require the co-operation of other ministers and agencies of the federal government in the strategic planning process. To do so, we suggest the addition of a new section as follows:

31A Other ministers, boards and agencies of the Government of Canada shall participate in the development and implementation of the national strategy and plans with respect to matters assigned by law to that other minister, board or agency.

A precedent for this type of provision can be found in s.12(3) (duty to provide information) of the Canadian Environmental Assessment Act, S.C. 1992, c.37 and ss. 33 and 36 of the EARP Guidelines Order.

11. Bill C-98 should provide for the involvement of Provincial governments in the strategic planning process. The application of provincial laws to offshore areas should be contingent upon the planning process and should further the goal of ecosystem management.

- Bill C-98 should be amended to provide that no regulations should be promulgated under ss.9 or 21 allowing the application of provincial laws until a management plan has been developed for that area of the ocean. It follows that the process of developing management plans should invite consideration of which provincial laws should apply in the ocean area.
- Bill C-98 should be amended to provide that the Regulatory Impact Statement prepared to accompany regulations promulgated under ss. 9 or 21 should address the question of whether or not the application of provincial laws furthers the purposes of Bill C-98 and promotes ecosystem health.
- Ss. 9 and 21 of Bill C-98 should be amended to make it clear that other provincial laws may be excluded from application in addition to those listed in ss. 9(2) and 21(2).
- S.31 should be amended to require the Minister to extend his/her collaboration to affected communities, First Nations and aboriginal peoples.

12. Bill C-98 should forge a link between the planning process and the creation of marine protected areas.

- Bill C-98 should forge an explicit link between the strategic planning process and the creation of MPAs. The creation of a network of MPAs should be one of the anticipated outcomes of the strategic planning process.
- Bill C-98 should clarify and extend the purposes of the MPAs that are to be created under this Act. It seems from s.35(b) that MPAs can only² be created for the conservation and protection of fish resources and habitat. CARC and CNF take the view that this is too narrow a statement of the purposes of marine protected areas. We believe that it needs to be expanded. However, in order to meet the anticipated objection that this will involve the Minister trespassing on the turf of other Departments we suggest that other Ministers be able to initiate the designation process under the section of Bill C-98.
- Consultation with provinces, territories and affected First Nations and other Aboriginal Peoples will be part of the strategic planning process if CARC/CNF's recommendations on this issue are accepted. Thus, provided that MPAs are created as a result of the planning process it will not be necessary to make specific provision for consultation on this issue. Failing that, CARC/CNF recommend that MPAs should only be created after consultation. In our view, the Sparrow decision requires consultation with Aboriginal Peoples who may be affected.

13. Bill C-98 should provide a definition of marine protected areas, their purpose and a statement of the types of activities that will be prohibited within an MPA. We suggest that the current s.35 be replaced with the following:

Marine Protected Areas

35(1) A marine protected area is an area of the sea that forms part of the continental shelf of Canada, the internal waters of Canada, the territorial sea of Canada, or the exclusive economic zone of Canada and has been designated under this section for special protection for one or more of the following reasons:

- a. conservation and protection of commercial and non-commercial fishery resources, including marine mammals and their habitats;
- b. conservation and protection of endangered or threatened marine species and their habitats;
- c. conservation and protection of representative marine habitats;
- d. conservation and protection of marine areas of high biological productivity;

*e.g. Sparrow
habitat*

*highly
productive*

² We note that para. (a) is not so limited but this paragraph must be read in light of para.b.

e. long-term protection pending completion of a representative network of marine conservation areas under the *National Parks Act*.

(2) A marine protected area may be designated under this section by the Governor in Council as part of the implementation of an integrated management plan under s.32, or, upon the recommendation of one or more of the Minister, the Minister of Environment, or the Minister responsible for Heritage Canada, and following consultation with affected Aboriginal Peoples and where the area falls in whole or in part within the boundaries of a province with the province concerned. The designation of an area as a marine protected area shall include a statement of the purposes of the designation.

(3) The Governor in Council may make regulations to give effect to the purpose for which a marine protected area was designated, and may provide for:

- a. the zoning of marine protected areas;
- b. the prohibition of classes of activities, or, in the case of fishing, types of gear, or harvesting activities, within marine protected areas;
- c. any other matter consistent with the purpose of the designation.

RATIONALE FOR RECOMMENDATIONS

CARC/CNF welcomes the introduction of the *Canada Oceans Act*. Canada has enormous marine areas under its jurisdiction. Stretching from sea to sea to sea, Canada has the longest shoreline and the second largest continental shelf in the world. Yet few Canadians give much thought to the country's oceans. Fewer than one fifth live near the coast: the rest pay little attention to the country's enormous marine gifts -- and are unaware of the enormous responsibilities that go with them. The very fact that, through mismanagement, Canada can no longer claim one of the most economically productive fishing grounds in the world should be a stern reminder of unfulfilled obligations. The very fact that no one can say with certainty whether the cod stocks will *ever* recover should galvanize change for we now have some sense of the *economic* as well as the *environmental* cost of failing to manage the oceans resources in an ecologically sound manner.

States must now take their responsibilities more seriously if oceans are to remain ecologically healthy and economically viable. Canada, with its huge ocean holdings, should lead the way and acknowledge its stewardship obligations for these ocean areas. The United Nations Convention on the Law of the Sea has now entered into force. Canada has yet to ratify the Convention. We urge the Government of Canada to take that step. Canada played an instrumental role in the development of the Convention and Canada's failure to ratify damages our international reputation.

Nevertheless, even though the Convention is not in force for Canada we note that many of the principles and rules of the Convention represent norms of customary international law binding upon Canada as such. As a state we recognize that fact when we claim the rights that flow from the law of the sea including the right to an exclusive economic zone. However, we must not forget that the Convention also includes obligations. Foremost among these obligations are the provisions of Part XII of the Convention dealing with the Protection and Preservation of the Marine Environment. We shall refer to different articles of the Convention in the course of our Brief, thereby emphasising the international as well as the domestic implications of the present Bill. In setting the context for a consideration of Bill C-98 it is also important that we bear in

mind obligations that Canada may have under other international agreements. Principal among these are the obligations for *in situ* conservation arising under the Convention on Biological Diversity, a Convention which Canada has ratified.

10 While we recognize that Bill C-98 is not intended merely for marine protection, but rather for conservation and sustainable development, it has been our sincere hope that this Bill would provide a Charter for healthy marine ecosystems for Canada, a Charter that would carry us, both environmentally and economically, through into the next century and beyond. We were fortified in that hope by the Minister's vision statement "*A Vision for Ocean Management*". A reader of that document cannot but be struck by the dramatic shift it advocates in our approach to the oceans and indeed in the function of the Department of Fisheries and Oceans. At the heart of that document was the proposal that we reject the historic practice of a commercial-fish-centred approach to ocean management and replace it with a management approach that recognizes the central importance of ecological health. Implicit in that shift was a reconceptualization of the role and function of the Department which must become in reality, if not in name, a Department of Ocean Ecology.

20 **It is our contention that the dramatic re-visioning contained within "*A Vision of Ocean Management*" has not been fully captured by the drafters of this Bill. The challenge facing this Committee is to ensure that Bill C-98 mandates this fundamental shift from fisheries management to ecosystem management. We hope that our Brief will help you achieve that goal, thereby fulfilling our responsibilities both to the global community and to subsequent generations of Canadians.**

In our brief we propose some changes, which though they appear fundamental, are entirely consistent with, and will restore, the proud stewardship vision articulated by the Minister in his "*Vision for Ocean Management*". There are three central themes that run through this brief that can also be identified in the Minister's vision statement.

30 **The first two themes are substantive in nature: first, the central importance of healthy marine ecosystems and second the need to foster and promote the long-run sustainability of**

communities dependent upon marine ecosystems. Our third theme emphasises the need for appropriate procedures for monitoring and accountability as we endeavour to implement the provisions of Bill C-98. In our view it is essential that we adopt procedures which will allow us to measure our successes and failures. Some of these measures will be institutional in nature i.e. did the Minister and the Department achieve what they set out to do? Other procedures will measure substantive progress i.e. did we achieve healthier marine ecosystems?

10 The brief is based on research and the result of regional workshops carried out by the two year CARC/CNF National Marine Conservation Programme. The present brief is, in fact, informed in great part by The Programme's recently completed *Discussion Paper on a National Marine Conservation Strategy*. (see Annex I for additional information on the Programme). An initial draft of the brief was discussed at a workshop in Ottawa in early September by legal, scientific, and policy experts who freely gave of their time to improve the quality of the brief. The brief is now divided into four parts, as follows:

Part I makes the argument for the inclusion of a purposes clause in Bill C-98.

Part II advocates the adoption of ecosystem management as a central organizing concept for Bill C-98 and explores the implications of this approach for marine scientific research.

20 Part III outlines the need for co-ordination both within the federal government and with other jurisdictions; and,

Part IV covers the issue of marine protected areas.

PART I: A PURPOSES CLAUSE

Bill C-98 is divided into three parts. Part I is largely a repetition of the contents of the *Canada Laws Offshore Application Act* (hereafter *CLOAA*) and the international Convention on the Law of the Sea. Part II offers the prospect of a strategic planning scheme for Canada's oceans, while Parts II and III together seem designed to achieve a measure of co-ordination between different federal departments with marine responsibilities.

This three-part division is fraught with difficulty, and, in many respects, Bill C-98's three separate parts read like three solitudes. Sometimes, even the sections within the separate parts fail to make the necessary connections required in order to achieve the integrated management for which Bill C-98 strives. In the course of this brief we make several specific suggestions as to how to improve the unity of Bill C-98 but in this part of our brief we make one overarching recommendation in order to address this difficulty, namely, that *Bill C-98 should contain a purposes clause that should govern the entire Act*. Such a clause should be designed to set the tone of the Act, to influence the interpretation of the Act by civil servants and the courts, and to provide a common thread to draw together the different parts of the Act.

At present, Bill C-98 has a number of purposes-like clauses but these are inadequate for two reasons. First, the preamble or recitals clause of the statute is not a substitute for a purposes clause. Typically, and in this Bill C-98 is no exception, a recitals clause speaks to the past; it provides the reasons for the enactment. Unlike a purposes clause it does not speak to the future; it does not set goals; and it does not facilitate a purposive interpretation of the statute. A preamble may be resorted to as an aid to interpretation, but only where an ambiguity has been detected.

Second, s.30 of Bill C-98, which articulates the principles that will form the foundation of the national strategy, reads like a purposes clause, but the principles articulated there are not intended to inform the interpretation of the entire Act, or even that Part of the Act. For example, s.30 does not apparently inform the mandate that has been given to the Canadian Coast Guard by s.41 of Bill C-98. Neither does it inform the marine sciences responsibilities of s.42, or the

question of whether or not regulations should be passed under s.9(1)(c) and s.21(1)(c) providing for the application of provincial laws.

In light of these considerations, *CARC and CNF propose that Bill C-98 should contain a purposes clause in addition to the Preamble*. While at one time, the inclusion of a purposes clause might have been unusual, purposes clauses have become increasingly common in federal statutes; see for example the *Canadian Environmental Assessment Act*, S.C. 1992, c.37, s.4.

CARC/CNF propose the following Preamble and purposes clause for consideration. Most of these purposes can be derived from the Minister's *Vision for Ocean Management*.

Preamble

Whereas healthy marine ecosystems are and will remain an essential precondition for healthy marine economies and communities;

Whereas the United Nations Convention on the Law of the Sea has entered into force.

Purposes

The purpose of this Act is to maintain, and where necessary, restore, healthy ecosystems for Canada's oceans. To that end, the Act has the following objectives:

- (a) to affirm, in domestic law, Canada's rights and obligations under international law with respect to internal waters, territorial sea, contiguous zone, exclusive economic zone, and continental shelf;*
- (b) to foster the ecologically sustainable development of the resources of Canada's oceans and to promote the development of new technologies, new services, and new value-added markets for marine resources and products;*
- (c) to conserve Canada's marine ecosystems and biodiversity through various marine conservation measures, including a system of marine protected areas; and,*
- (d) to promote through traditional ecological knowledge and scientific research, an understanding of oceans, ocean processes, marine resources and marine ecosystems which can inform cooperative management of human activity in the marine environment.*

Later sections of the brief will refer to this statement of purposes thereby illustrating how a purposes clause may be used to establish a degree of integration between the disparate parts of this Bill.

In addition, because of the central importance that we place on the concept of ecosystem health, we have also proposed a definition of that term.

"Ecosystem health" means an ecosystem in which, over time:

- 10
- a. the food webs are fully functional;*
 - b. key species are preserved as key species;*
 - c. genetic, species and population diversity are maintained;*
 - d. commercial species are maintained at, and where necessary, restored to, ecologically sustainable levels.*

[Note: A food web that is fully functional is one that is not impaired by ("virtually free") contaminants. The reference to "over time" is intended to capture the ecosystem as a dynamic unit. The reference to maintaining all forms of biological diversity is intended to capture the fact that maintenance of biodiversity is crucial to the healthy functioning of ecosystems.]

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Please see Annex 2 for additional information on ecosystem health and its implications.

PART II: ECOSYSTEM MANAGEMENT

All three papers commissioned by CARC/CNF strongly recommended that Canada needs to adopt an ecosystem management approach with respect to its oceans and this recommendation was echoed in all of the CARC/CNF regional workshops. A useful statement of the concept of ecosystem management is found in s.3 of the Parks Canada Policy Statement of 1993/94 on National Marine Conservation Areas. That policy states that the concept involves:³

10 ... adopting a holistic view of the natural environment, ensuring that decisions consider the dynamic and interactive nature of ecosystems, human activities within the ecosystems, and their finite capacity to recover from stress caused by human disturbances.

What is distinctive about ecosystem management is that unlike other forms of management such as integrated resource management, ecosystem management explicitly recognizes that the goal is not to manage for the benefit of short run human needs (e.g. until the next election, or the year 2000) but to manage in order to ensure the long run health of the ecosystem, including those components of the ecosystem that have no apparent direct short-run benefit for humans.⁴

20 Ecosystem management is premised upon both an adequate scientific understanding of the marine ecosystem, the energy flows within it and the key interactions and, where that information is not available, a precautionary approach.

³ This definition sees humans as an essential part of the functioning ecosystem. We adopt that usage in this brief.

⁴ G. Francis, "Ecosystem Management" (1993), 33 *Natural Resources Journal* 316 and A. Bell, "Non-Human Nature and the Ecosystem Approach ..." (1994), 20 *Alternatives* 21.

In this section of our brief, we will deal with elements of Parts II and III of Bill C-98 and address three related concerns:

- (1) the management approach proposed by Bill C-98 and the values underlying that approach;
- (2) the relationship between the national strategy and integrated management plans proposed in Part II; and
- (3) the role of science in Bill C-98.

10

(1) The Management Approach of Bill C-98

CARC and CNF are of the view that Parts II and III of Bill C-98 represent a move in the right direction but that considerable improvements could still be effected. In particular, Bill C-98 has not adopted the concept of “ecosystem management” which seemed to be called for by the Minister’s *Vision Statement*. Instead, Bill C-98 proposes a national strategy and integrated management plans. The national strategy is to be based upon the twin principles of sustainable development and integrated management of *activities*. In our view this management approach is necessary but not sufficient in that it represents only two sides of the triangle.

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It represents a commitment to integrated management, and a commitment to the needs of future generations, but it doesn’t tell us that we are managing activities *for the purpose of ensuring ecosystem health*. In other words, this section, and therefore Bill C-98, lacks an essential normative component: it has not articulated the primary value that it is trying to perpetuate or protect.

In sum, CARC and CNF are of the view that s.30 of Bill C-98 is an inadequate statement of the principles that should underlie and guide a national strategy; it does not place ecosystem health at the heart of its concerns. Instead, Bill C-98 focuses on development and human activities. We suggest that the focus of s.30, and indeed of the entire Bill, should be the concept of sustainable

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ecosystems and ecosystem health. We therefore suggest a short and pithy statement to replace the existing s.30:

30. The national strategy shall have as its objective the maintenance, and where necessary, the restoration of the health of marine ecosystems, through the use of integrated management, for the purposes of ecologically sustainable use and development.

10 Two examples will demonstrate why this change is necessary. First, there is nothing in the language of s.30 that would preclude the conclusion that wild stocks of salmon could be replaced by farmed stocks with no net loss. Bill C-98 is value neutral on this point. Second, there is nothing in s.30 that encourages the protection of those species that are not presently directly useful to humans but are essential to sustain those species upon which we depend. That might include phytoplankton blooms; unique coral assemblages at the northern end of their range in Canadian waters; currently under-utilized species like sea urchin; and marine mammals that are no longer commercially harvested.

(2) The Relationship Between the National Strategy and Integrated Management Plans
20 Part II of Bill C-98 envisages that the Government's Ocean Management strategy is to be achieved through the adoption of a national strategy and integrated management plans. Subject to our comments above we support this process but with one further general cautionary comment. We are concerned that the planning process should be iterative and purposive and not an excuse for inaction; planning must be for the purpose of achieving and maintaining ecosystem health. This leads us to suggest that a first cut of the plans should be produced within a short period of time and then refined on an iterative, "learning-by-doing" process. We wish to guard against the risk that, in a few years time, the refrain "we haven't finished the plan" will be an excuse for inaction.

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In addition to that general comment, we have a number of more specific suggestions for improving the planning process as developed in Bill C-98,

- a) first, we propose that Bill C-98 address the connection between the strategy and the plans;
- b) second, we suggest that Bill C-98 needs to indicate how the areas that the plans are to cover will be determined;
- c) third, we suggest that Bill C-98 should provide guidance as to the *contents* of the plans; and
- d) fourth, we think that the process to be followed for arriving at the plans could usefully be improved. We will deal with each of these recommendations.

a) The Link Between the Strategy and the Plan

It seems clear that the plans should be consistent with the strategy, and similarly clear that the plans should be based upon whatever principles ultimately end up informing the strategy. This intention could be effected by inserting the words "Consistent with the national strategy..." at the beginning of s.31.

b) The Areas Covered by the Plans

In terrestrial areas there is considerable debate in the literature as to the appropriate planning unit. Should it, for example, be the watershed, the water basin or an artificial management unit? Reflections on this debate are found in federal water legislation including the *Canada Water Act*, and the NWT and Yukon water statutes. This issue also needs to be dealt with in the context of the present Bill. The complete silence of Bill C-98 on this point is a recipe for inaction. We acknowledge that the selection of appropriate marine planning units is a very difficult problem and therefore we have not made our own recommendation. Nevertheless, in selecting appropriate marine planning units, several factors are relevant. First, such regions must be large enough to embrace large-scale oceanic processes. Second, in recognition of the dynamic nature of oceanic systems, the boundaries of such regions should not be carved in stone. Third, the plans must recognize the links between marine and terrestrial areas. For this reason we recommend the deletion of s.28. While we understand that the jurisdiction of the federal government is limited

we do believe, as noted below in Part III, that the federal government does have a legitimate interest in spillover problems originating in provincial waters and on provincial lands. It therefore seems only reasonable to provide for the option of involving rivers and lakes, where appropriate.

c) The Contents of the Plans

The legislation provides no guidance as to the contents of the plans. We have already suggested that the plans should be consistent with the principles that inform the strategy. In addition, we *recommend that the statute should prescribe a non-exhaustive list of matters that should be addressed by plans*. Bill C-98 might, for example, provide that, where appropriate, management plans shall address the following:⁵

- a. *The need for spatially and temporally protected areas within the geographical area of the plan in order to protect representative areas and/or specially sensitive or valued ecosystem components including spawning areas, areas of special value for marine species;*
- b. *Areas within which different economic activities, ranging from tourism to non-renewable resource exploration and extraction, can occur;*
- c. *Areas within which ocean dumping, dredging and bottom dragging harvesting devices should not be permitted;*
- d. *The priority to be attached to particular plan components, the preferred order for implementation, and a timetable by which planning goals are to be achieved;*
- e. *Research plans, indicating the research necessary in order to secure an understanding of ecosystem processes at a macro-level;*
- f. *Transportation requirements, and the way in which they are to be met, including, where appropriate, the need to establish vessel traffic management systems;*
- g. *Identification of endangered and threatened species within the planning unit and plans for protection and recovery;*
- h. *Specific proposals to maintain, and where necessary, restore, ecosystem health within the region;*

⁵ Most of the suggestions can be traced to the three background papers that CARC and CNF commissioned.

- i. A list of measurable ecosystem and economic performance goals against which progress is to be measured;*
- j Identification of indicators of ecosystem health appropriate to the planning unit.*

This section could be included as s.31(2) of Bill C-98.

10 In drafting this proposed section, we have had several considerations in mind. First, we think that it is important that there be an explicit connection between the planning process, the goal of ecosystem health, and the creation of marine protected areas under s.35 of Bill C-98. This explains the inclusion of paras. a., b., and h. Second, we think that it is very important that Bill C-98 ensure that elements of the plan(s) will serve as performance indicators (similar to those referenced in the existing s.32d) against which it will be possible to measure progress and success (see paras. c., i., j., & k.). These performance indicators need to perform several functions. Some of them may be process oriented and may require government departments and others to do certain things. (Process measures are dealt with in more detail below.) In addition to process measures we need to know whether the actions undertaken made any difference. We
20 therefore need a set of substantive measures of performance. Some of these measures need to be understandable by members of the public. Examples of such indicators expressed as goals of the management plan might include:

- i. the goal that shellfish throughout the region be fit for human consumption;*
- ii. the goal that the consumption of fish or marine mammals by humans not result in the accumulation of unacceptable levels of persistent organic pollutants;*
- iii. the goal that there be a net increase in the number of jobs dependent upon the marine ecosystem.*

30 Other substantive indicators might be more technical in nature and draw upon methodologies already developed for state of the environment reporting.

It is also important that Bill C-98 recognize explicitly that the strategy needs to make some attempt to articulate techniques and approaches for dealing with threats to ecosystem integrity

that originate from outside areas within Canada, or as to which Canada is entitled to claim sovereign rights (e.g. the problems in Arctic Canada of long range transport of pollutants and problems throughout Canada's oceans with straddling stocks and migratory mammals).

Before leaving the subject of the Plans, we note that the planning process envisaged is unduly constrained by the phrase "activities". It is not clear why the planning process should not extend to policies, research plans and emergency response plans, none of which would readily fall within the term "activities". It is also notable that the process is limited to activities that occur within these waters. It does not extend to activities that may have an effect, or a significant effect on these waters. Thus *CARC/CNF recommend that the plans envisaged by s.32 be broadened to encompass all measures within these waters as well as those measures that may have a significant effect on these waters.*

d) Process Concerns

In this section of our brief we deal with two types of process concerns. The first relates to the collaborative procedure that is envisaged for the planning process and the second considers some measures that should be adopted to ensure accountability or transparency.

CARC/CNF recommend that:

- i. The collaborative process for developing the strategy and plans be broadened.*
- ii. Bill C-98 should establish a timetable for the development of a strategy and plans and a requirement that the Minister table a report with Parliament every three to five year interval which reports on progress achieved under Bill C-98, and that this report be set down for discussion by the Standing Committee on Fisheries and Oceans.*

i. Broadening the Collaborative Process

Bill C-98 indicates that the Minister is to have the lead role in developing both the strategy and the plans. Bill C-98 also notes that both processes are to be collaborative and may involve "interested persons and bodies" and "other ministers, boards and agencies of the Government of Canada." CARC/CNF support the idea of a collaborative process. However, we recommend that the Minister should be explicitly directed to collaborate with, *inter alia*: aboriginal peoples, provincial governments, non-governmental organizations and industry. In a later section we also recommend that it be made clearer that other departments of government are also obligated to participate in this process.

Many of Canada's aboriginal peoples are marine peoples for whom marine resources are essential for their culture and way of life. In some cases, management institutions established by land claim agreements specifically extend to marine areas; see, for example, The Nunavut Agreement, article 15. That article also contemplates the formation of a Nunavut Marine Council to advise government on planning and other issues in marine areas.

Consequently, it is quite remarkable that Bill C-98 contains only one reference to aboriginal peoples and that (s.24(2)) is merely a continuation of the non-derogation principle currently found in s.20 of *CLOAA*. CARC\CNF take the view that this is inadequate. Instead *we recommend that Bill C-98 contain a more positive direction to the Minister to enter into co-management arrangements with First Nations and Aboriginal Peoples as well as other communities of resource users where appropriate.*

Similarly, given the geographical scope of some provinces and territories, they too need to be collaboratively involved in the development of strategy and plans. For example, the Northwest Territories and Nunavut include extensive oceanic and marine areas, as does the Province of British Columbia following the Supreme Court's decision in the *Georgia Strait Reference*. Even if in some areas the provinces or territories do not embrace large

marine components, land-based activities within the provinces and territories will still have a significant if not controlling effect upon marine ecosystem health.

Finally, the involvement of NGOs in the collaborative process to develop the strategy and plans is justified by the need to ensure transparency and to ensure that the full range of ideas and ethical values is brought to bear on the subject. The NGO community can, in addition, be relied upon to help ensure that other Departments participate in the collaborative process.

10 **ii. Accountability and Reporting Requirements**

CARC and CNF are concerned that the planning exercise envisaged by Bill C-98 will never happen. The federal statute book contains several examples of ambitious planning schemes that have never come to fruition despite the best will in the world. For example, the *Canada Water Act* has an ambitious scheme that has never been fully implemented and the same can be said of the schemes proposed in the *Northern Inland Waters Act* (now repealed), and the *Yukon and Northwest Territories Water Acts*. In this specific case let us not forget that the federal government committed to introduce a Canada Oceans Act in 1987 as part of the *Oceans Policy for Canada*. Consequently, *it is imperative that the Act provide both a timetable and a reporting obligation for the Minister*. In our view, it would be reasonable to expect that the strategy should be completed by December 31, 1997 and should, when available, be tabled in Parliament. It is less clear how quickly the plans can be generated. Consequently, we suggest that the Standing Committee ask the Department to suggest a reasonable timetable. In any event we think that progress on both aspects of the strategic planning process should be the subject of regular reporting by the Minister to parliament and thence to the Standing Committee. For an example of an annual reporting requirement see *Canadian Environmental Assessment Act*, S.C. 1992, c.37, s.71.

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(3) The Role of Science

Good science is an essential element of ecosystem management. Yet it is clear that there are major gaps in our understanding of marine ecosystems. This is true of all three oceans but our ignorance seems especially prevalent in the Arctic. Dr. Welch writes in his background paper on the Arctic that:

“... very little research has been aimed at basic understanding of marine ecosystem structure and function. As a result we remain largely ignorant of production mechanisms, food webs and rates of energy transfer, and the physical regimes that ultimately control these processes.”

Part of our obligation to future generations (and thus, part also of the obligation of sustainable development articulated in s.30) is that we hand down to them a better understanding of these fundamental processes. This research is not cheap but it is immoral to perpetually postpone this type of research in favour of the quick-fix identification of particularly acute problems such as contaminants or plummeting stocks of species like northern cod. While necessity will dictate that we attend to these acute problems, we owe far more to ourselves and to the future; we must build a legacy of marine systems knowledge so future crises may be prevented. Furthermore, we note that a better understanding of marine ecological processes in the Arctic may be an essential precondition to the exercise of the jurisdiction under the ice-covered areas clause of the Law of the Sea Convention. Canada fought long and hard for the inclusion of this clause and it would be bitterly ironic if we were unable to justify the measures that we were proposing to take in reliance upon that article.⁶ This will mean that basic research in the arctic must include an exploration of the important and poorly understood roles that sea ice and the ocean-ice interface play in the health of the arctic ecosystem.

⁶ Article 234 provides as follows:

Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause irreversible harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based upon the best available scientific evidence.

It is unlikely that the passage of Bill C-98 will do anything to change the state of affairs identified by Dr. Welch and others. It is true that ss. 42 and 43 of Bill C-98 allocate certain powers to the Minister but they are both simply empowering sections. They are not creative of new duties or responsibilities; they do not provide fresh sources of funds for marine scientific research in Canada.

Given the economic benefit derived from the marine environment, CARC/CNF consider that the failure to address the need for ecosystem research is unacceptable. At present, the combined value of the Atlantic, Pacific and freshwater fisheries alone totalled roughly \$3.1 billion (1990). Significant reserves of offshore hydrocarbons are being tapped as a result of Sable Island production and will be tapped when Hibernia comes on-stream with the future holding out the prospect of significant Beaufort Sea production.

The total investment of the federal government in basic marine scientific research, however, was \$327 million in the 1987-88 fiscal year. It is clear that this is a significant sum but the breakdown is revealing, demonstrating that only a fraction of it goes to study the continuing health of marine ecosystems: of the total spent, 29% was on fishery-related issues, 21% on navigation, 20% on national security issues and 15% on environmental and conservation. The remaining 15% was earmarked for mineral and "other" research.

To address the overlooked area of basic ecosystem research, CARC/CNF recommend that Bill C-98 should be amended to create an Ocean Futures Program. The objective of the Program should be to support research intended to further our understanding of marine ecological processes on all three coasts, marine management institutions and issues related to sustainable communities on all three coasts. Issues for study should, among other things, include, basic bioenergetic work, the role and effects of currents and, in the north, the role of ice. The Program should have a fixed life and should be administered by an advisory panel of Canada's most eminent scientists, including social scientists, and exponents of traditional knowledge.

CARC/CNF also recommend that a significant portion of federal research monies should be redirected from strict fisheries science to pilot projects that improve our understanding of how

whole ecosystems function, how ecosystem components interact and how to measure and monitor the health of whole ecosystems. At least a portion of that money should be dedicated to arctic marine science.

In his survey piece on the Arctic Ocean, Dr. Welch also drew attention to the possibility of furthering our understanding of marine ecosystems by making use of traditional ecological knowledge (TEK). CARC/CNF support this view and recommend that TEK be added to the list of marine science functions referred to in ss. 42 and 43 of Bill C-98.

10 CARC has had considerable experience with TEK applications in the context of the Hudson Bay - James Bay Program. In that project, the cross-fertilization between scientists and holders of traditional knowledge has improved our understanding of ecosystem functions in several ways. For example, the collaboration has provided long-term historical data from Inuit elders to allow a greater appreciation of climate change; it has also revealed previously unknown dynamics within the ecosystem. For example, as a result of incorporating scientific and traditional ecological knowledge, it is now thought that there is a resident beluga population in Hudson Bay: Scientists previously thought that all beluga populations were seasonal migrants. This new information will allow for a management regime that better accounts for the marine reality.

20 It is also noteworthy that Canada is party to a number of international instruments and declarations that recognize the value of TEK. These include the Convention on Biological Diversity and the Rio Declaration. In order to ensure that this international recognition is not ignored, it is important that it be extended to domestic legislation.

PART III: CO-OPERATION AND COORDINATION

The papers prepared for the CARC/CNF project all pointed to the problems associated with the sheer number of statutory provisions relating to Canada's oceans and the involvement of many government departments with no obvious co-ordination between them. In addition, commentators have noted the problems arising from the competing jurisdictional claims of provinces, territories, land claim institutions and the federal government.

10 Bill C-98 proposes two different techniques for dealing with these problems. First, problems within the federal government are to met by the provisions in Parts II and III of Bill C-98 providing for the development of an Oceans Management Strategy and prescribing the powers, duties and functions of the Minister. Second, in relation to the provinces and territories, Bill C-98 offers no explicit proposals for federal-provincial agreements or federal provincial co-operation. Instead, Bill C-98 simply continues the strategy of the *Canada Laws Offshore Application Act* which was designed to allow the application of provincial laws in areas outside the province.

20 It is our view that the measures proposed by Bill C-98 can be improved. We will deal first with the problem of co-ordination within the federal government and then turn to the other jurisdictional questions.

1. A Federal Leadership Role

Numerous commentators have remarked upon the multiplicity of federal, provincial and territorial laws that apply in the offshore and the number of federal and other agencies that have responsibility for activities in the offshore. The result has been a failure to deal with pressing issues and the expenditure of time and effort in wasteful exercises designed to protect turf rather than solve problems.

30 Consequently, CARC\CNF applaud the attempt that has been made in Parts II and III of Bill C-98 to strengthen the leadership role of the Minister and Department of Fisheries and Oceans. In particular, CARC\CNF support the leadership role that has been extended to the Minister for

the development and implementation of the national strategy and the integrated management plans under ss.29-32 of Bill C-98.

Unfortunately, it is not at all clear that there will be significant changes in practice in the absence of a clear obligation on other departments and agencies to participate in the strategic planning process, and a reporting function that can be used to reveal non-participation or non-cooperation. In addition, other departments and agencies must perceive some advantage to themselves for participating in the strategy and planning process. This brief has already made the case for regular (we suggest every three or four years) reporting function. We add the point here that the audit function of the Standing Committee should not be limited to investigating the progress of the Department of Fisheries and Oceans; it should also monitor the degree and quality of the collaboration offered by other departments and agencies. In the remainder of this section we will focus on the participation of other departments and agencies.

The participation of all affected federal departments and agencies in the strategy and planning process will be vital to its success. Yet it is clear that the mandatory language of the statute in ss.29 and 31 is directed solely at the Minister. It is our view that overarching legislation of this sort needs to extend the obligation to participate more broadly. It is not adequate to respond by saying "that of course other federal departments will co-operate". Experience suggests that, in the absence of explicit direction, departments will continue to pursue their own objectives, priorities and interests rather than pursuing broader goals and strategies. Furthermore, it has been our experience that explicit statutory language, has allowed public interest groups (such as ourselves) to offer support to the lead agency and remind other departments of their obligations to participate in the process. We refer here to our experiences⁷ and those of many other environmental and community groups over the past decade with the federal environmental assessment and review process.

Consequently, we suggest the addition of a new section to Bill C-98 which might provide as follows:

⁷ See *Northern Perspectives*, volume 20, #2 winter 1992.

31A Other ministers, boards and agencies of the Government of Canada shall participate in the development and implementation of the national strategy and plans with respect to matters assigned by law to that other minister, board or agency.

A precedent for this type of provision can be found in s.12(3) (duty to provide information) of the *Canadian Environmental Assessment Act*, S.C. 1992, c.37 and ss.33 and 36 of the *EARP Guidelines Order*.

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It should be noted that the capacity of the Minister and the Department to implement the strategy and plans is limited by two elements of Bill C-98. First, the language of Bill C-98 is ambiguous in relation to the implementation of the plans. S.31 uses mandatory language in relation to implementation but s.32 (which is concerned with the mechanisms for implementation) uses the permissive "may". Second, the Minister can only implement those elements of the plans with respect to those matters assigned by law to the Minister. These matters are found primarily in s.4 of the *Department of Fisheries and Oceans Act*. They are limited to:

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- (a) sea coast and inland fisheries;
- (b) fishing and recreational harbours;
- (c) hydrography and marine sciences; and
- (d) the coordination of the policies and programs of the Government of Canada respecting oceans.

In the context of the present Act, these matters seem narrow. Consequently, CARC\CNF suggest a consequential amendment to the Department of Fisheries and Oceans Act which would reword paragraph (a). The proposed para. (a) would read as follows:

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- (a) *oceans processes and marine ecosystems including fisheries;*

We consider this change to be important and fully consonant with the overall objective of this brief as well as Minister's Tobin intention of moving from a narrow short-term focus on fisheries management to the broader goal of ecosystem health.

Finally, in order that the Minister's obligations are clear, we believe that s.32 should be broken down into two subsections. The first subsection, consisting of section (a), should be mandatory ("may" in the preface should be replaced by "shall"). The second subsection, consisting of sections (b), (c), and (d) would require an additional preface which would remain permissive.

Please see Annex 3 for additional information on the relationship between science, research, decision-making and management.

2. Problems Associated with Overlapping Federal, Provincial and Territorial Responsibilities and Interests

CARC/CNF believe it to be important that Bill C-98 accept the realities of divided constitutional jurisdiction. We also believe that Bill C-98 should be drafted with an accurate perception of federal powers. At present we are concerned that Bill C-98 all but ignores jurisdictional issues and appears to be premised on the proposition that the federal government is toothless (and therefore has no responsibility) when it comes to land-based activities that may have an effect on the marine ecosystem. Neither strategy is justifiable.

For ease of analysis we shall describe three types of jurisdictional problems here:

- first, the problem of spillovers;
- second, the problem of divided jurisdiction; and,
- third the problem of involving affected regions and communities.

Spillovers

Activities that occur within a province and which are regulated by provincial laws may have consequences for marine areas outside the province. This may be referred to as the problem of spillovers or externalities. The classic example of a spillover is land-based marine pollution.

Divided Jurisdiction

Second, although provincial laws cannot have an extra-provincial application, some marine areas fall within the territorial boundaries of provinces. For the most part, these areas are relatively small insofar as they are waters that are inland waters as a matter of common law. These waters include small bays and the like. However, some very extensive marine areas fall within provinces and territories by virtue of the constituent legislation for that jurisdiction. Thus, British Columbia includes Georgia Strait and connected straits and the NWT and Nunavut embrace the waters of the arctic archipelago. This is the geographical and geopolitical reality with which any Canadian oceans strategy must grapple.

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These waters, although within a province are not subject to exclusive provincial jurisdiction. Federal fishery laws apply, as do navigation and shipping laws and all other laws of general application. But there are constraints upon the federal power in these areas. For example, the federal government could not create a National Marine Conservation Area in an area that fell within a province without the consent of the province concerned. Furthermore, the regulation of some activities is effectively divided between federal and provincial governments. The classic example is provided by the salmon fishery. The right to regulate the fishery falls to the federal parliament. However, the property right to fish is, as a matter of common law, held by the owner of the bed of the sea, river or lake. In areas beyond the province this will ordinarily be the Crown in right of Canada,⁸ but within the province it is more likely to be the provincial Crown, or, in rare circumstances, a private party. This reinforces the point that there are certain things that are beyond federal power in these areas including the grant of an exclusive fishing right to a third party. This division of powers may constrain the adoption of innovative solutions to problems such as the problem of too many boats chasing too many fish. For shorthand purposes we shall refer to these problems as the problems of divided jurisdiction.

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⁸ See *Offshore Minerals Reference*, [1976] S.C.R. 792, and Bill C-98, ss. 8, 15, 19)

Regional and Community Involvement

Third, even with respect to these areas beyond the province and therefore subject to exclusive federal jurisdiction, practical politics and good, sustainable management dictates that the interests of the government on the ground and the interests of local communities cannot be ignored. Common property resources do not lend themselves to centralized management.⁹ For these reasons, we have, in practice, seen considerable devolution of responsibility for fisheries to the provinces through various interdelegation techniques. In addition, shared management of oil and gas has occurred through the Atlantic and Nova Scotia Accords.

10 From an environmental perspective there has been a tendency in the past to favour federal legislation almost for its own sake, but *the position that CARC and CNF advocate for here is for that combination of federal and provincial laws and responsibilities that is most likely to support sustainable marine ecosystems and sustainable communities.*

How Bill C-98 Responds to Jurisdictional Issues

Thus, the question for present purposes is does Bill C-98 make this more or less likely? Is Bill C-98 going to help us solve: (1) the problem of spill-over effects; (2) the problems of divided jurisdiction that lead to inaction and “buck-passing” and (3) the problem of involving communities and regions affected?

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CARC/CNF take the view that Bill C-98, as presently structured, is unlikely to help any of these problems. We say this for three reasons.

- First, Bill C-98 does not attempt to address in any way shape or form, the problem of spill-over effects or externalities. It simply does not speak to the problems of intra-provincial activities that have effects in the marine environment. It even goes so far as to say that rivers cannot even be included within the planning process, with or without the consent of the provinces concerned. This will simply serve to perpetuate the dual problems faced by anadromous stocks (a federal responsibility) of over-harvesting (federal and provincial responsibilities) and habitat destruction (primarily a provincial

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⁹ Elinor Ostrom, *Governing the Commons*, 1990.

PART IV: MARINE PROTECTED AREAS

As things currently stand, marine protected areas can be established either under the *Guiding Principles and Operational Policies* (Marine Conservation Areas) (Parks Canada, Department of Canadian Heritage) or the *Canada Wildlife Act* (Canadian Wildlife Service, Environment Canada). In addition, temporary protection is offered through orders under s. of the *Fisheries Act*. These orders need to be renewed annually. Bill C-98 adds a fourth mechanism through s.35 in Part II of Bill C-98 dealing with ocean management strategy and planning. This additional mechanism is necessary because each of the above methods of setting aside MPAs has its
10 limitations. CARC\CNF also believe that a more ordered approach to MPAs is favoured and perhaps required by article 194(5) of the Law of the Sea Convention and by article 8 of the Convention on Biological Diversity. Article 194(5) of UNCLOS provides that:

5. The measures taken in accordance with this Part shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of wildlife.

20 MPAs can serve many different functions. They may be used as part of a strategy of fish conservation to protect critical habitat for spawning or juvenile fish and as refugia to "reseed" commercially harvested stocks; they may be marine sanctuaries for threatened or endangered species for a portion of their range; they may serve as protected zones to preserve biodiversity and they may provide a natural laboratory for baseline studies and monitoring; they may serve to protect representative marine and coastal habitats; they may serve to safeguard areas of marine heritage to encourage public understanding and appreciation and for the benefit of future generations; and they may serve to protect ecological "hotspots" and areas of tremendous biological productivity such as polynyas.

30 CARC\CNF support the view that the degree of protection afforded by MPAs may vary with the purposes of the MPA. Some activities may be allowed in certain parts of an MPA consistent with the specific management and conservation objectives of the MPA. This result may be achieved through zoning. On the other hand, certain activities should always be prohibited in

MPAs established for conservation purposes, including: oil and gas exploration and production, sand and gravel extraction, mining, dumping, dredging, and dragging.

CARC and CNF support the protection of marine areas as part of a comprehensive ecosystem management plan for large marine areas. However, we are of the view that significant improvements could be made in the present Bill both in relation to s.35 and s.107 which provides for a consequential amendment to s.4.1(1) of the *Canada Wildlife Act (CWA)*.

A reader of both s.35 of Bill C-98 and s.4.1(1) of the *CWA* will be struck by two things. First, neither section provides a definition of an MPA or a statement of the purposes of an MPA, or of the conditions that must be satisfied before one can be set apart. Instead, each section delegates considerable authority to the Governor in Council with very little guidance as to how that authority is to be exercised. Second, the provisions are almost identical. This may give rise to questions of duplication and co-ordination. We address both questions in the proposed re-draft of the MPA section found at the conclusion of this paper.

In addition to those two points which apply equally to Bill C-98 and to the *CWA*, we have already alluded in this brief to two other problems with the MPAs. These problems are the failure to integrate the MPA process with the strategic planning process, and the failure to require the involvement of the provinces in decisions to create MPAs in waters that lie within the province.

In light of these difficulties CARC/CNF recommend as follows:

1. *Bill C-98 should forge an explicit link between the strategic planning process and the creation of MPAs. The creation of a national network of MPAs should be one of the anticipated outcomes of the strategic planning process.*

(3) The Governor in Council may make regulations to give effect to the purpose for which a marine protected area was designated, and may provide for:

- a. the zoning of marine protected areas;*
- b. the prohibition of classes of activities, or, in the case of fishing, types of gear, or harvesting activities, within marine protected areas;*
- c. any other matter consistent with the purpose of the designation.*

ANNEX 1 The CARC/CNF National Marine Conservation Strategy Programme

The Programme is a two-year program conducted by CARC and CNF and sponsored by government departments, private charitable foundations, and the private sector. The Programme is designed to focus national attention and to galvanize national action on marine conservation. Thus far the Programme has involved more than two hundred individuals and organizations from along Canada's coasts. The Programme has had three main components. First, three research authors were hired to provide an overview of issues facing Canada's oceans. The three were:

- 10 East coast: Evelyne Meltzer, Meltzer Research & Consulting (Halifax)
North coast: Buster Welch, Freshwater Institute (Winnipeg and Resolute)
West coast: Richard Paisley, Westwater Research Centre (Vancouver)

Each author was asked to provide a biological overview of the coastal region, to outline the major environmental (and, where appropriate, economic) issues facing it, and to review some of the efforts to address the region's problems. These papers then became the basis for discussion at a series of regional workshops which formed the second phase of the project. Five two-day regional workshops were held to identify specific tools to improve marine management in Canada. The workshops were held in:

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St. John's, NF	February 7/8, 1995
Halifax, NS	February 10/11, 1995
Inuvik, NWT	March 3/4, 1995
Vancouver, BC	March 7/8, 1995
Iqaluit, NWT	March 27/28, 1995

30 The same two questions were asked of the 15 to 25 individuals representing a variety of interests at each workshop: "what are the major stumbling blocks to adequate marine conservation of your oceans and coasts?"; and, "what solutions can you suggest to solve the problems?" Topics of discussion ranged widely and recommendations were offered on legislative, policy, economic and educational tools for marine conservation and sustainable development.

The third phase of the project was the development of a draft discussion document which was designed as a summary of the workshops and to provide stakeholder-based recommendations on how best to foster sustainable development of Canadian marine systems.

ANNEX 2 A Brief Overview of Ecosystem Health

Ecosystem health reflects (and is the end product) of the sustainable use of natural resources. Ecosystem health describes the extent to which the composition and function of biological communities and their supporting food-webs remain fully compatible with the physical and chemical characteristics of the natural environment.

10 Ecosystem health is progressively lowered when human activities exceed the ability of natural systems to renew themselves. Over-exploitation, contamination, and habitat change are major forms of stress which affect the biological, chemical, and physical parts of the environment, respectively.

"Culture" means the propagation, growth, and harvesting of selected species in a place which has been, in some way, altered or removed from the natural environment. Culture in artificial environments can be used to increase the supply of food and reduce exploitation or, or dependence on, natural renewable resources.

20 At a regional or global scale, ecosystem health can only be maintained by the sustainable use of renewable resources, minimal levels of contamination, and the preservation of different types of habitat and connections between them. Agriculture and aquaculture in artificial environments can complement but cannot replace healthy natural ecosystems.

ANNEX 3 A Brief Overview of Science and Research

The sustainable use of renewable marine natural resources, including the setting aside of areas for aquaculture, depends on the wise management of human activities (environmental management). Management decisions should be based on sound information about both human activities and the environment in which they occur.

10 Because so much of what happens in the sea cannot be seen and must be determined by indirect means, science (the logical application of knowledge) and research (gaining new or improved understanding) provide a particularly important underpinning for decision-making. Management strategies must, therefore, incorporate science and research appropriate to human activities (including fisheries science and research), the natural marine environment (ecosystem science and research) and aquaculture (science and research)

20 Some research must respond to an immediate need to know and will therefore be of relatively short duration. Other research must be supported over relatively long time periods, often consistent with the phenomena being studied. To ensure responsible use of human and financial resources, management should be clearly accountable not only for the approval of research activities but also for the provision of their continued support and the assessment and application of their findings.

