

ITEM (b)

DRAFT

**Proposed HAPC Process
Drafted by the
EFH committee**

May 5-6,2003

Habitat areas of particular concern (HAPC) are those areas of special importance that may require additional protection from adverse effects. Regulations at 50 CFR 600.815(a)(8) provide that “FMPs should identify specific types or areas of habitat within EFH as habitat areas of particular concern based on one or more of the following considerations:

- (i) The importance of the ecological function provided by the habitat.
- (ii) The extent to which the habitat is sensitive to human-induced environmental degradation.
- (iii) Whether, and to what extent, development activities are, or will be, stressing the habitat type.
- (iv) The rarity of the habitat type.”

In June 1998, the Council identified several habitat types as HAPC within the essential fish habitat amendments 55/55/8/5/5. Habitat types, rather than specific areas, were designated as HAPC because little was known at the time regarding where these habitat types were located. These HAPC types included:

1. Areas with living substrates in shallow waters (e.g., eelgrass, kelp, mussel beds, etc.)
2. Areas with living substrates in deep waters (e.g., sponges, coral, anemones, etc.)
3. Freshwater areas used by anadromous fish (e.g., migration, spawning, and rearing areas)

A summary of the History HAPC by NPFMC is provided in Chapter 2 of the EFH EIS.

The Council formed an EFH Committee in April 2001 to act as a steering committee for the EFH EIS process. The Committee’s overarching goal was to facilitate input by the industry, conservation community, Council, and general public into the EFH EIS process. In regards to HAPC, the committee worked cooperatively with Council staff and NMFS to identify alternative criteria and approaches that could be used to designate and manage HAPC areas. The Committee met for the first time May 20, 2001 and has continued to hold meetings through May 2003. The Committee aided in formulating the HAPC designation alternatives referred to in Chapter 2.

In April 2003 the Council directed the EFH Committee to develop and recommend a HAPC process. The EFH Committee met May 5-6 and developed the draft process described here. The process will be presented to the Council for approval in June 2003.

HAPC Process Executive Summary

The Committee suggests that consistent with the NEPA process the Council adopts the following outline.

1. A. Council considers establishing HAPC criteria
- B. Council considers establishing HAPC priorities; priorities reviewed every HAPC cycle.
 - Receives comment from scientific community, AP, NMFS, ADFG, public. Criteria for scientific evaluation of proposals identified, along with criteria for evaluating management measures.

NOTE: The EFH Committee seeks suggestions the on how to develop the appropriate ecological and socioeconomic criteria for evaluating HAPC proposals in two separate processes.

2. Call for proposals (open to ADFG, NMFS, public, etc.) Proposals submitted on HAPC form developed by Council.
3. Proposals screened by Council staff to determine consistency with EFH Final Rule and application completeness. If not consistent or complete, proposal is rejected. If accepted, proposal is forwarded to next step.
4. Proposals reviewed by science technical committee for goals, objectives and appropriate management measures. If management measures are included, review such measures for suitability to an adaptive management approach. Preliminary evaluation by two discrete bodies evaluates these proposals for 1) ecological considerations 2) socioeconomic practicability. Proposals forwarded to next step with recommendations and comments.
5. Proposals reviewed by EFH/HAPC Review Committee, management measures evaluated and recommendations prepared for Council family (AP, SSC, Council)
6. Council selection of a range of HAPC alternatives for analysis to address each identified Council priority. Council identifies preliminary management measures where appropriate, and initiates NEPA analysis.
7. Stakeholder process(es) initiated.
8. Technical/Public Workshop: Science/Technical review team, EFH/HAPC review committee, and public meet to review stakeholder recommendations. EFH/HAPC committee finalizes recommendations for Council on management measures, research design, and adaptive management strategy.
9. Public comment on NEPA analysis.
10. Council receives a summary of public comments and takes final action by Council on HAPC selections and management alternatives.

Each proposal that was received and/or considered by the Council would have one of three possible outcomes:

- (1) The proposal could be accepted and the area designated as a HAPC
- (2) The proposal could be used to identify an area or topic requiring more research, which the Council would request from NMFS or another appropriate agency;
- (3) The proposal could be rejected.

Elements of the HAPC process

1a. Council consideration of establishing HAPC criteria

- Public comment received from scientific community, AP, NMFS, ADFG, and public. Criteria for scientific evaluation of proposals identified, along with criteria for evaluating management measures.

In soliciting HAPC proposals, the Council may decide to: identify as criteria only those considerations outlined in the EFH Final Rule; provide additional guidance to the public by establishing criteria or priorities in addition to those outlined in the EFH Final Rule; or adopt the category/process outlined by the ecosystem committee in 2001. These alternatives, along with some options or variations, are outlined below. Once identified, any additional criteria or priorities, along with the criteria developed for the scientific review (outlined in section 3), should be widely publicized to guide development of HAPC proposals.

Alternative A) HAPC identified using considerations from EFH final rule (outlined below).

According to the language of the NMFS EFH Final Rule, EFH that is judged to be particularly important to the long-term productivity of populations of one or more managed species, to be particularly vulnerable to degradation, or to be particularly rare should be identified as a "habitat area of particular concern" (HAPC) to help provide additional focus for conservation efforts. The rule provides the four basic considerations of an area for HAPC designation. The four considerations are:

- (1) the importance of the ecological function provided by the habitat;
- (2) the extent to which the habitat is sensitive to human-induced environmental degradation;
- (3) whether, and to what extent, development activities are, or will be, stressing the habitat type; and,
- (4) the rarity of the habitat type.

The Final Rule also specifies that habitats that are particularly vulnerable to specific fishing equipment types should be identified for possible designation as habitat areas of particular concern. The intent of the HAPC designation is to identify those areas that are known to be important to species that are in need of additional levels of protection from adverse impacts (fishing or non-fishing). Designation of habitat areas of particular concern is intended to determine what areas within EFH should receive more of the Council's and NMFS' attention when providing comments on federal and state actions, and in establishing higher standards to protect and/or restore such habitat.

Alternative B) Council establishes additional criteria for HAPC identification. Criteria alternatives (alternatives are not intended to be mutually exclusive):

- 1) Whether the Council designates HAPC as sites or types, management measures, if needed, will be applied to a habitat feature in a specific geographic location, identified on a chart, that meet the considerations established in the regulations, and will be developed to address identified problems for FMP species and achieve clear, specific adaptive management objectives (included in the Introduction).
- 2) The evaluation and development of HAPC management measures, where management measures are appropriate, shall be guided by the EFH Final Rule.

1B. Council considers establishing HAPC priorities; priorities reviewed every Council cycle.

- Public comment received from scientific community, AP, NMFS, ADFG, and public. Criteria for scientific evaluation of proposals identified, along with criteria for evaluating management measures.

Alternative A) Council does not set priorities

Alternative B) Council selects habitat priorities (priorities reviewed and either modified or reaffirmed prior to each call for proposals)

Priority options (options are not necessarily mutually exclusive):

- 1) Rank the HAPC considerations established by NMFS according to the priorities of the Council. HAPC proposals that target higher Council priorities could be weighted higher than others.
- 2) Emphasize habitat critical to “species of concern,” defined on a local, regional or area-wide scale (depleted, over-fished, etc.). The HAPC guidelines state that: “The intent of the HAPC designation is to identify those areas that are known to be important to species which are in need of additional levels of protection from adverse impacts (fishing or non-fishing).”
- 3) Establish as a priority one or more of the existing HAPC designations as stated in the 1998 Environmental Assessment as follows:
 1. Areas with living substrates in shallow waters (e.g., eelgrass, kelp, mussel beds, etc.)
 2. Areas with living substrates in deep waters (e.g., sponges, coral, anemones, etc.)
 3. Freshwater areas used by anadromous fish (e.g., migration, spawning, and rearing areas)

2. Call for proposals for HAPC Process

Proposal Cycle Options:

1. Proposals are solicited and reviewed every:
 - a) 3 years
 - b) 5 years
2. Proposals submitted during:
 - a) regular plan/ regulatory amendment cycle (Summer call for proposals due in the Fall)
 - b) Separate cycle

Any member of the public may propose a HAPC, including fishery management agencies, other government agencies, scientific and educational institutions, non-governmental organizations, communities, industry groups.

Scientific and technical information on habitat distributions, gear effects and fishery distributions, and economic data should be made easily accessible prior to a call for proposals.

The National Marine Fisheries Service Alaska Region website has a number of valuable tools for assessing habitat distributions, understanding ecological importance and assessing impacts. Other key information is more difficult to access. Information on EFH distribution, living substrate distribution, fishing effort, catch and bycatch data, gear effects, known or estimated recovery times of habitat types, prey species, and freshwater areas used by anadromous fish should be easily accessible from a central area. This information should be available from the same place that the public accesses the HAPC proposal form.

The format for a HAPC proposal should include:

- Name of proposer, address, and affiliation
- Title of proposal : *Provide a title for the HAPC proposal and a single, brief paragraph concisely describing the proposed action.*
- Identify the habitat and FMP species the HAPC proposal is intended to protect.
- Statement of purpose and need.
- A description of whether and how the proposed HAPC addresses the four considerations set out in the final EFH regulations.
- Specific objectives for this proposal
- Proposed solutions to achieve these objectives (how might the problem be solved)
- Methods of measuring progress towards those objectives.
- Expected benefits of the proposed HAPC, and provide supporting information/data.
- Identify the fisheries, sectors, stakeholders and communities to be affected by the establishment of the proposed HAPC (Who benefits from the proposal who would it harm?) and any information you can provide on socioeconomic costs.
- Provide clear geographic delineation for proposed HAPC (written latitude and longitude reference point and delineation on an appropriately scaled NOAA chart)
- Provide best available information and sources of such information to support the objectives for the proposed HAPC. (*Citations for common information or copies of uncommon information*)

3. **Proposals screened by Council staff** to determine consistency with EFH Final Rule and application completeness. If not consistent or complete, proposal is rejected, If accepted, proposal is forwarded to next step.

4. Establishing Scientific Criteria for Evaluating HAPC proposals:

Proposals reviewed by science technical committee for goals, objectives and appropriate management measures. If management measures are included, review such measures for suitability to adaptive management approach. Preliminary evaluation by two discrete bodies evaluates these proposals for 1) ecological considerations 2) socioeconomic practicability. Proposals forwarded to next step with recommendations and comments. It is requested that when the rationale of a proposal has merit, but it lacks in supportive data, that the scientific committee makes a reasonable effort to provide references regarding appropriate data queries and information sources to fill in the missing information.

The Council should establish a HAPC technical/scientific review consisting of scientists from the appropriate disciplines. It is recommended that scientists with appropriate expertise from federal, state, university and independent affiliations be asked to participate on the HAPC scientific committee. National Marine Fisheries Service: Alaska Fisheries Science Center/ Auke Bay Laboratories staff familiar with habitat distributions and species requirements in the Alaska Region.

- Alaska Department of Fish and Game Biologists familiar with crab, scallop salmon and rockfish habitats/ species requirements.
- University of Alaska: School of Fisheries and Ocean Sciences
- Independent Scientists: Somebody familiar with the science of marine protected areas and marine reserves. No suggestions at this time.

When organizing the make up of the scientific committee considerations of the individual's time, availability and funding for travel must be considered. For the accelerated process that will commence sometime by November 2003, state and federal employees may be the only ones available to work on this. If NMFS or the NPFMC cannot fund expenses for university and other independent scientists, it would be

useful to still invite them to participate, recognizing funding limitations. Some independent scientists may have great interest in participating and have available funding. An additional idea is to have the federal and state scientific committees send out their comments on proposals to a few independent researchers to acquire additional review and new perspectives. In the long term, the NMFS may want to seek funding from sources such as the North Pacific Research Board, to fund independent and interagency committee members in a formal HAPC review process.

5. **Proposals reviewed by EFH/HAPC Review Committee**, management measures evaluated and recommendations prepared for Council family (AP, SSC, Council)
6. **Council selection of a range of HAPC alternatives** for analysis to address Council priorities if identified. Preliminary management measures identified where appropriate.
7. **Stakeholder process(es) initiated.**

The Committee recommends that the Council establish a stakeholder review process after step 6 in the suggested HAPC Process Outline. If one or more communities are affected the Committee recommends appropriate outreach. Different stakeholder processes may be appropriate based on the nature of the HAPC proposal. The Council may consider the following options:

Option 1: The stakeholder process is conducted by the EFH committee.

- a) EFH committee holds meetings in each region affected by proposals.
- b) Committee holds meetings in location(s) determined to be most convenient.

Option 2: The NPFMC designates a HAPC committee. The HAPC committee could be composed of stakeholders from different communities, have industry representation, include current EFH committee members, independent scientists, native/ tribal representatives, conservation NGOs, federal and state representatives.

- a) The HAPC committee holds meetings in each region affected by proposals.
- b) Committee holds meetings in location(s) determined to be most convenient.

Option 3: In addition to the EFH committee, *two stakeholders from each region* affected by proposals are appointed to the committee. Regional stakeholders are active on the committee during regionally based meeting.

Option 4:

- a) **HAPC committee plus two scientists**, plus two stakeholders from each region affected by proposals hold committee meetings to review HAPC proposals.
- b) **EFH committee plus two scientists**, plus two stakeholders from each region affected by proposals hold committee meetings to review HAPC proposals.

Option 5: Request that appropriate regional fish and game advisory committees review proposals and report their comments back to:

- a) NPMFC
- b) EFH/ HAPC committee

Option 6: Three regional committees of stakeholders are formed to review proposals in their designated region: Gulf of Alaska, Bering Sea and Aleutian Islands.

- Option: each regional committee has a representative from current EFH committee who would help keep groups working in a consistent framework. For example: one or both chairs of EFH committee.

8. **Technical Review teams (ecological/socio-economic)** review prior to Public Workshop evaluation proposals with defined criteria.

Ecological Criteria:

The evaluation of candidate Habitat Areas of Particular Concern (HAPC), whether they are habitat types, specific sites or a network of habitat areas, should incorporate scientific review at multiple stages of the public process. Recognizing the importance of integrated scientific review to a process for identifying and evaluating potential HAPC areas, the North Pacific Fishery Management Council stated at the April 2003 meeting, "The evaluation (of HAPCs) shall include efficacy, scientific review and appropriate mitigation measures." This paper is designed to facilitate discussion among the Essential Fish Habitat Committee for how scientific review should be incorporated into the overall HAPC process.

A preliminary step in evaluating HAPC proposals is to develop scientific criteria that the proposals will be measured against. An accepted list of scientific criteria will help guide what habitat types to consider, focus critical habitat areas for inclusion, plus give guidance to the size, shape and configuration of specific HAPC sites. These criteria are suggested for use by the scientific review committee when evaluating proposals. The criteria used by the scientific review committee in evaluating proposals should also be adopted by the NPFMC and presented to the public, so that the public understands how proposals will be scored. These ecological/ social criteria may be different from other criteria that the NPFMC uses to evaluate proposals (e.g. practicability and enforceability).

These options are not intended to be mutually exclusive. Others may have additional ideas for option 2 (additional ecological criteria).

Option 1: At a minimum, HAPC selection should meet the threshold of one or more of the considerations established in EFH Final Rule §600.815(a)(8); ecological importance, rarity, vulnerability and sensitivity to anthropogenic degradation.

~~**Option 2:** Additional ecological criteria to consider when evaluating HAPC proposals are (adapted from ADF&G 2002):~~

- ~~○ Exploited species should be present, preferably in areas important to one or more vulnerable life stages, such as spawning or rearing;~~
- ~~○ Site size should be large enough to meet the objectives of proposed sites;~~
- ~~○ Inclusion of high quality habitats or unique bathymetric features;~~
- ~~○ Inclusion of vulnerable, rare or endemic species; and~~
- ~~○ High biodiversity and/ or high productivity areas.~~

~~The Alaska Department of Fish and Game (ADF&G 2002) provides a full suite of criteria, including social and economic considerations, which should be incorporated into the public process that the NPFMC selects for designating Habitat Areas of Particular Concern. However it is important that biological criteria precede and inform the socioeconomic evaluation, since conserving and enhancing the ecological function of these priority habitats within EFH should be the primary objective.~~

Some EFH Committee concurred on eliminating this option, and seek SSC opinion an alternate yardstick for scientific merits of a proposal.

Evaluation of Candidate HAPCs:

The team should evaluate each proposal on the basis of how well it meets the criteria for HAPC, and determine whether designation and any management measures are warranted. The review should be based on whether the proposal has an acceptable degree of scientific merit.

In the NPFMC Environmental Assessment of Habitat Areas of Particular Concern (NPFMC 2000), proposed HAPC types and areas were evaluated using a ranking system that provided a relative score to the proposed HAPCs by weighing them against the four considerations established in the EFH final rule. Scoring systems are relatively strait forward and easy to use. However, a written description should accompany the ranking so it is clear what data, scientific literature and professional judgments were used in determining the relative score.

Evaluation matrix of proposed HAPC types and areas. (NPFMC 2000)

Proposed HAPC area	Data Level	Sensitivity	Exposure	Rarity	Ecological Importance
Seamounts and Pinnacles	1	Medium	Medium	High	Medium
Ice Edge	3	Low	Low	Low	High
Continental Shelf Break	3	Medium	Medium	Low	High
Biologically Consolidated Sediments	1	Low	Medium?	Low	Unknown

*This matrix is put forward for the purpose of discussion. If additional criteria are adopted (see recommendations above), they should be incorporated into the evaluation matrix or considered in written comments by the scientific panel. Other ranking methods may be useful.

Each proposal should be evaluated against some type of standardized system that weighs the proposal against the adopted ecological criteria and socioeconomic criteria (if social scientists are part of the committee). *Additionally, the scientific review panel should provide comments on the ability of the proposal to meet stated goals and objectives.*

The science review team could also rank the proposals.

Scientific Uncertainty:

It is definite that there will be some level of scientific uncertainty in the design of proposed HAPCs to meeting their stated goals and objectives. Some of this uncertainty may reside in the fact that the public will not have access to all relevant scientific information. However, recognizing time and staff constraints, it cannot be expected that the scientific committee fill all the information gaps of proposals.

In the end, the North Pacific Fishery Management Council will have to recognize data limitations and uncertainties, and weigh precautionary strategies for conserving and enhancing HAPCs while maintaining sustainable fisheries. Tools are available to help resource managers measure risks and uncertainty that provide a quantitative approach in determining the results of management actions. In order to facilitate such decisions, it will be useful to have the scientific committee highlight available science and information gaps that may have been overlooked or not available to the submitter of the HAPC proposal.

Socioeconomic Criteria:

The EFH mandate states that EFH measures are to minimize impacts on EFH “to the extent practicable” so socioeconomic considerations have to be balanced against expected ecological benefits at some relevant point in the development of measures. NMFS’ final rule for developing EFH plans states specifically that (Section (2) *ii* F.R. page 2378) FMPs should “identify a range of potential new actions that could be taken to address adverse effects on EFH, include an analysis of the practicability of potential new actions, and

adopt any new measures that are necessary and practicable”. In contrast to a process where the ecological benefits of EFH or HAPC measures are the singular initial focus and a later step is used to determine practicability, this alternative approach would undertake the consideration of practicality simultaneously. The benefit of this simultaneous consideration of both aspects of the EFH mandate is that it would help to avoid the risk of creating a set of alternatives that may hold benefits to habitat but may not individually or collectively be likely to pass the practicable test.

To accomplish this simultaneous evaluation, relevant social and economic information should be developed from the outset. Specifically, HAPC proposals should be required to identify as extensively as possible the exact locations that would be affected if the proposed HAPC mitigation measures were implemented. Proposals and preliminary technical analysis should also identify to the extent possible, affected fishing communities and provide some initial assessment of the potential effects on those communities, employment and earnings in the fishing and processing sectors, and related infrastructure. Preliminary analysis should also provide information on the potential relocating fishing activities to other areas if the proposed mitigation is enacted.

As soon as possible in the initial technical review process, an assessment of the socioeconomic information provided in the proposal should be made and social scientists on the technical review teams. Team members should begin to supplement this information as needed so as to analyze the resulting economic and social impacts of proposals, both individually and cumulatively. Analysis should include: cultural values of the area, and potential of tourism and non-consumptive recreational use, an assessment of the effects on fishing communities including changes in net revenues, efficiency changes and net national benefit consideration from such things as deadweight losses for unrecoverable fishing opportunities (if applicable) or changes in CPUES and attendant efficiency losses from the outcome of increasing effort in sub-optimal fishing areas or areas with higher bycatch rates.

To accomplish this, economists and other social scientists will have to be included on separate HAPC technical review teams. Management and enforcement will also need representation in the early stages of HAPC review as well. Set up to evaluate both ecological and socioeconomic tradeoffs separately from the outset, the task of these technical review teams will be to evaluate the environmental benefits, social and economic costs, and general management cost and enforceability of individual proposals. The Committee recommends that two teams be created 1 ecological and 1 socioeconomic, and that their reviews be conducted simultaneously.

Cumulative impacts analysis must be considered because there may be many HAPC proposals that pass initial review. Cumulative impacts must be assessed because several HAPC proposals considered at the same time or in sequence could affect the same groups of fishermen or communities and fisheries or management areas as a whole. Evaluating effects of individual proposals in isolation could overlook the overall practicability consideration which the EFH final rule states must be balanced against ecological benefits.

Assessment of the “practicability consideration” up front for HAPC proposal development and evaluation would undoubtedly require additional initial burden on groups or individuals making proposals and social scientists on preliminary scientific on preliminary review teams. In overall scope and depth of work, however, the same elements will be required if the practicability test was left for later consideration. The benefit of this early consideration of social, economic, and management cost and enforcement practicability is that the alternatives developed for analysis can be more likely to have approval because an assessment of practicability has already been undertaken.

9. Technical/Public Workshop: Science/Technical review team, EFH/HAPC review committee, and public meet to review stakeholder recommendations. EFH/HAPC committee finalizes recommendations for Council on management measures, research design, and adaptive management strategy.'

10. Public Comment: Council receives a summary of public comments and takes final action by Council on HAPC selections and management alternatives.

Each proposal that was received and/or considered by the Council would have one of three possible outcomes:

- (1) The proposal could be accepted and the area designated as a HAPC
- (2) The proposal could be used to identify an area or topic requiring more research, which the Council would request from NMFS or another appropriate agency;
- (3) The proposal could be rejected.

Literature Cited:

ADF&G 2002. Marine Protected Areas in Alaska: Recommendations for a Public Process. Alaska Department of Fish and Game Division of Commercial Fisheries. Juneau, AK.

Auster, P.J. 2001. Defining Thresholds for Precautionary Habitat Management Actions in a Fisheries Context. North American Journal of Fisheries Management 21: 1-9.

NPFMC 2000. Draft Environmental Assessment/ Regulatory Impact Review. Habitat Areas of Particular Concern. North Pacific Fishery Management Council. Anchorage, AK.

Roberts. C.M. et al. 2003. Application of Ecological Criteria in Selecting Marine Reserve and Developing Reserve Networks. Ecological Applications. 13(1): S215-S228.

**ADDENDUM: from New England Council
Supportive Data and Information:**

The HAPC proposal form will have a section asking the submitter to include any supportive data and other relevant material. The New England Fishery Management Council has detailed a list of accepted information sources to support HAPC proposals. This or a similar list may be useful to detail, so the public knows what scientific information the review panel will be looking for.

From - NEFMC Habitat Areas of Particular Concern Process:

General Scientific Data and Information – The information used by the proposer to justify an HAPC proposal comes from scientific peer-reviewed journals, government technical reports, or from unpublished scientific data. This category includes any scientific data or information that are not site-specific but still bear relevance on the issue by demonstrating one of the HAPC criteria.

Site-Specific Scientific Data and Information – The information used by the proposer to justify an HAPC proposal comes from scientific peer-reviewed journals, government technical reports, or from unpublished scientific data. This category includes any scientific data or information that are derived from or for the specific area under consideration in the HAPC proposal.

Literature Review - The information used by the proposer to justify an HAPC proposal comes from a review of peer-reviewed literature and government technical reports. This includes summaries of the results of scientific studies published in peer-reviewed journals and technical documents. The literature review may be prepared by the proposer or may be prepared by another source and should clearly articulate the link between the area, habitat type, or species in question with at least one of the HAPC criteria.

Substrate Mapping – The information used by the proposer to justify an HAPC proposal includes substrate mapping of the specific area under consideration. The source of the substrate mapping should be a federal agency, such as the U.S. Geological Survey, a state agency, an academic institution, or a research collaborative. The substrate maps should be provided to the Council and readily available for external review.

Oceanographic Information – The information used by the proposer to justify an HAPC proposal includes information on the oceanographic features occurring in the specific area under consideration. This information can include, but not be limited to, the tracking of currents, identification of relatively stable and persistent gyres, oceanographic fronts, thermoclines, haloclines, or pycnoclines. Reference to any transient oceanographic feature(s) should include a description of the importance of the feature to the target species or habitat type. NEPMC, 2002.

Traditional Knowledge: Incorporate all traditional knowledge as information to justify a HAPC proposal.