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MSC Evaluation of US and Canada West Coast Pacific Hake Fisheries

Draft Performance Indicators and Scoring Guideposts for Assessment of Pacific Hake Mid-water Trawl Fisheries

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Guide to Performance Indicators and Scoring Guideposts
Introduction to Scoring Methodology

Application of the MSC Principles and Criteria for Sustainable Fishing

The MSC Principles and Criteria provide the overall requirements necessary for certifying that a fishery meets the Marine Stewardship Council's environmental standard for being well-managed and sustainable.

The certification methodology adopted by the MSC involves the application and interpretation of the Principles and Criteria to the specific fishery undergoing assessment. This is necessary, as the precise assessment of a fishery will vary with the nature of the species, capture method used, etc.

Accordingly, the assessment team for the Candidate Fishery has developed, from the MSC Principles and Criteria, a structured hierarchy of 'Performance Indicators' and 'Scoring Guideposts' in order to carry out the assessment. Performance indicators represent separate areas of important information (e.g. Indicator 1.1.1.2 requires a sufficient level of life history information on the target species and stock, 1.1.2.1 requires information on the effects of the fishery on the stock and so on). These indicators therefore provide a detailed framework of performance attributes necessary to meet the MSC Criteria in the same way as the MSC Criteria provide the factors necessary to meet each MSC Principle. Beside each indicator, individual 'Scoring Guideposts' (60, 80 and 100) are identified. It is at this level that the performance of the fishery is measured. It is important to note that the absolute numeric values assigned to each of these guideposts are <u>not</u> intended to reflect any type of percentile scoring system but were established by the MSC to help the assessment teams facilitate weighting and combining different performance indicators (see further discussion below).

Scoring Methodology

For each Performance Indicator, the candidate fishery's management characteristics are compared with pre-specified attributes for each of three Scoring Guideposts to establish a score. A 60 score is intended to reflect 'a pass with condition', a score of 80 represents 'a pass without condition', while a 100 score reflects 'perfect performance.' In order for a fishery to be certified it must accomplish three things:

- Achieve a minimum of 'a pass with condition' for every performance indicator (as defined by a score of least 60);
- Must achieve 'pass without condition' for each MSC Principle (an average aggregated score of 80 for each principle);

- A commitment to improvement for each performance indicator from 'pass with condition' performance up to the 'pass without condition' performance level within the five year certificate life (as defined by agreed actions to improve any indicator's score to at least 80 if it has been scored between 60 and 80 in the assessment).

In fisheries where any given indicator scores below 60, a fishery cannot pass the evaluation process and be awarded certification until the performance issue(s) identified can be corrected to the satisfaction of the certification body and its expert evaluation team.

The evaluation framework noted above is referred to as the fishery assessment tree. It represents a hierarchical application of the Principles and Criteria. The scoring guideposts used to rate a performance indicator are meant to be hierarchical in that to meet a particular score, the scoring guideposts of all lower scores must also have been met. For any given MSC criterion, sub-criteria and performance indicators may be identified by the TAVEL assessment team as appropriate to the nature of the fishery. All sub-criteria and indicators are weighted indicating their relative importance in setting the overall scores for the fishery. The weighting process will proceed after the evaluation team has received public comments on this draft and been able to incorporate the comments to create a final set of sub-criteria, indicators, and scoring guideposts for use in the evaluation process.

Specific Assessment Approach for US and Canada West Coast Pacific Hake Fisheries

US and Canadian Pacific hake fishery clients have proposed the candidature of the coastwise fisheries for assessment under the MSC Principles and Criteria for Sustainable Fishing. The participating client parties include companies representing both the processing sector and the harvesting sector inclusive of the American shore-side catcher fleets, the American catcher-processor fleets and mothership fleet, the Makah Tribal Fishery of Washington, and the Association representing the harvesting sector of Canada.

The mid-water trawl fisheries are managed by Fisheries and Oceans Canada (DFO Pacific Region) in Canada and by the National Marine Fisheries Service and Pacific Fishery Management Council in the US. The management framework for the fishery is the ratified "Agreement between the Government of the United States and the Government of Canada on Pacific Hake/Whiting".

TAVEL Certification will use a common assessment approach to evaluate fishery performance against MSC Principle 1 and Principle 2. Evaluation under Principle 3 will be scored separately for each country. In the event of successful certification, a separate certificate will be issued for each national fishery.

The key to understanding the criteria is to understand the differences between the MSC Principles. Principle 1 focuses on evaluating the target population, defined as target species or target stocks. Under this principle, the fundamental areas of concern which identify sound fisheries management are:

1. The definition of the target stocks;
2. The quality of monitoring and stock assessment programs;
3. The specific management goals for target stocks;
4. The procedures to ensure the recovery of target stocks if they are depleted; and
5. The fisheries are conducted in a manner that does not impair reproductive performance (e.g. the fishery does not significantly change the age, size and genetic structure of the target stocks).

An understanding of the context of the West Coast Pacific hake coastal stock is important for consideration under MSC Principle 1. The proposed unit of certification is the distinct offshore Pacific hake stock which extends from California to British Columbia. The health of this stock is assessed using a common stock assessment approach. Ratification of the Canada/ US Agreement on Pacific Hake in January 2007 formally implemented the common approach, assessment tools, management reference points and harvest control rules across the fishery range in both countries. Mid-water trawl is the fishery method used in both countries and is the candidate fishery method assessed in the pre-assessment. The assessment will evaluate the performance of all mid-water trawl hake fishery sectors, including the Makah tribal fishery. TAVEL will assess the health of the Pacific hake stock and the tools used to assess that stock.

Principle 2 focuses on the impact of the Pacific hake mid-water trawl fisheries on the ecosystem and non-target populations. The Principle 2 assessments determine how the candidate fishery management deals with:

1. The importance of maintaining a productive, functional and diverse ecosystem;
2. Provisions to minimize the fishery impacts on endangered, threatened, protected or icon species; and
3. Procedures that ensure the recovery of any depleted non-target stocks or degraded ecosystems.

Some considerations of the ecosystem context under Principle 2 are as follows. Pacific hake are an important species in the California Current Ecosystem. The importance of hake as a forage species is more significant in some years over others, particularly during large recruitment events. Bycatch levels in the coastal Pacific hake fishery are low, given the targeted nature of the fishery and the gear type used. However, extremely low biomass levels of certain salmonid and rockfish species that are commonly associated with hake require bycatch limits and special management restrictions for this fishery. Bycatch mortalities in both the U.S. and Canadian hake fisheries are monitored continuously, and bycatch limits have restricted the hake catch in some years. Principle 2 will also examine the known impacts of the mid-water trawl gear used in the fisheries.

Principle 3 focuses on management and operational framework that has been put in place by the ratified US/ Canada Agreement on Pacific Hake to achieve the management goals. The assessment will evaluate the management policies, framework and plans used by

Fisheries and Oceans Canada (DFO Pacific Region) in Canada and by the National Marine Fisheries Service and Pacific Fishery Management Council in the US.

Some indicators under Principle 3 appear to overlap with indicators under Principles 1 and 2, however, it is significant to note that the Principles 1 and 2 are concerned with the outcomes (products) of a management system respecting the fact that the resources are maintained at the desired levels of abundance, while Principle 3 is concerned with evaluating whether all of the processes for reaching management objectives are in place. Components unique to Principle 3 include:

1. The evaluation of the consultation process;
2. The procedures used to control fisheries;
3. The extent of internal and external review of the management system;
4. The compliance with legal and administrative requirements; and
5. The implementation of responsible fishing practices.

The evaluation of MSC Principle 3 with respect to the Pacific hake fisheries takes into account relevant biological, technical, economic, social and environmental aspects for various sectors. The assessment team is specifically looking for an adaptive management program with cooperation between stakeholders. The assessment will also look for well-characterized catch and bycatch data from all commercial sectors of the fishery. In addition, this assessment investigates compliance with relevant local, national and international laws and standards.

Concurrence between TAVEL Certification Assessment Tree and MSC Principles and Criteria

The following three pages present a diagrammatic presentation of how the assessment team has defined Performance Indicators and Scoring Guidelines to verify the requirements of the MSC Principles and Criteria.

Final Performance Indicators and Scoring Guidelines

The remaining pages of this document display the draft Performance Indicators and Scoring Guidelines to be used in the assessment of the US and Canada West Coast Pacific hake fisheries.

Any questions regarding this certification assessment can be forwarded to:

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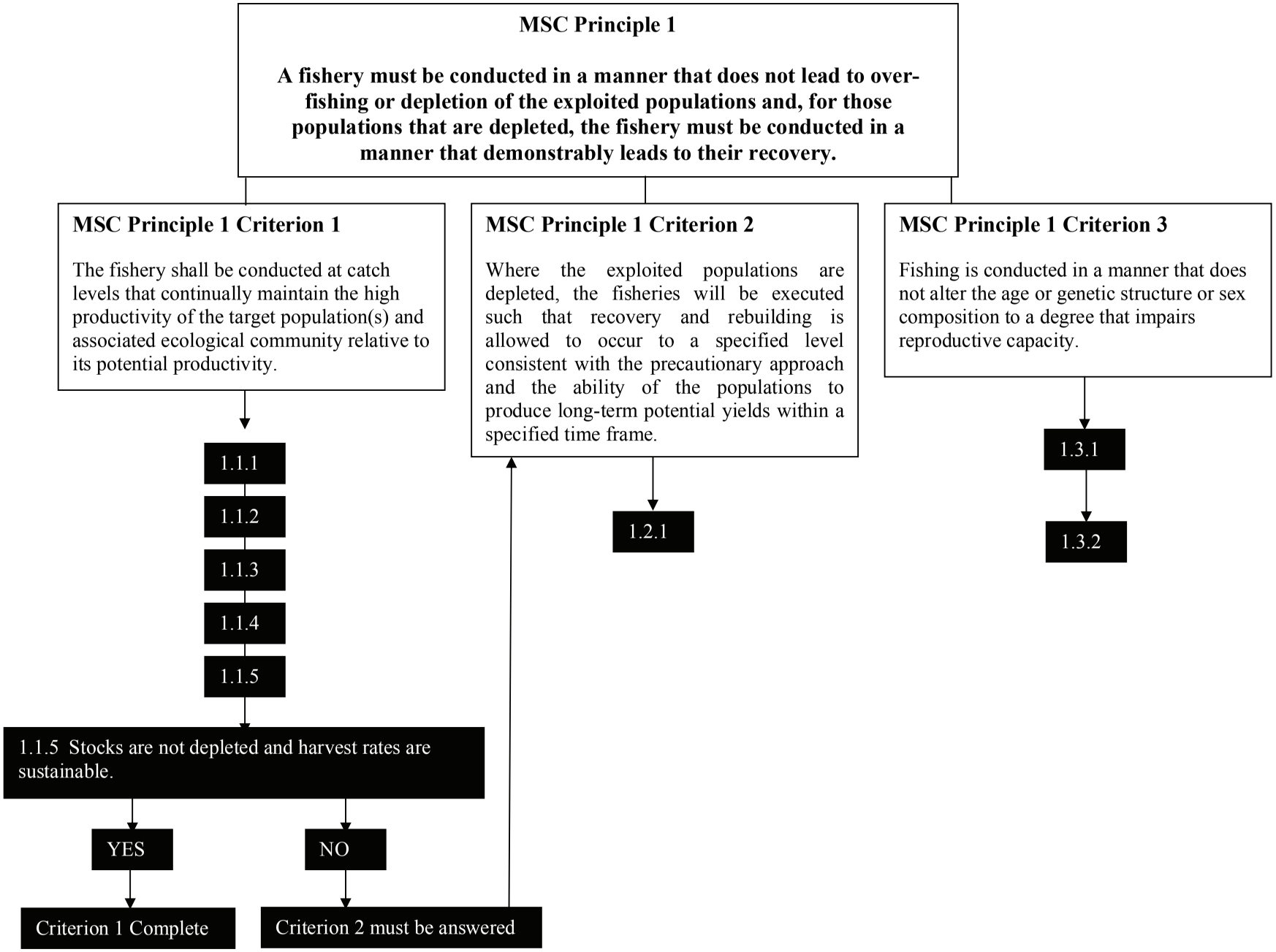
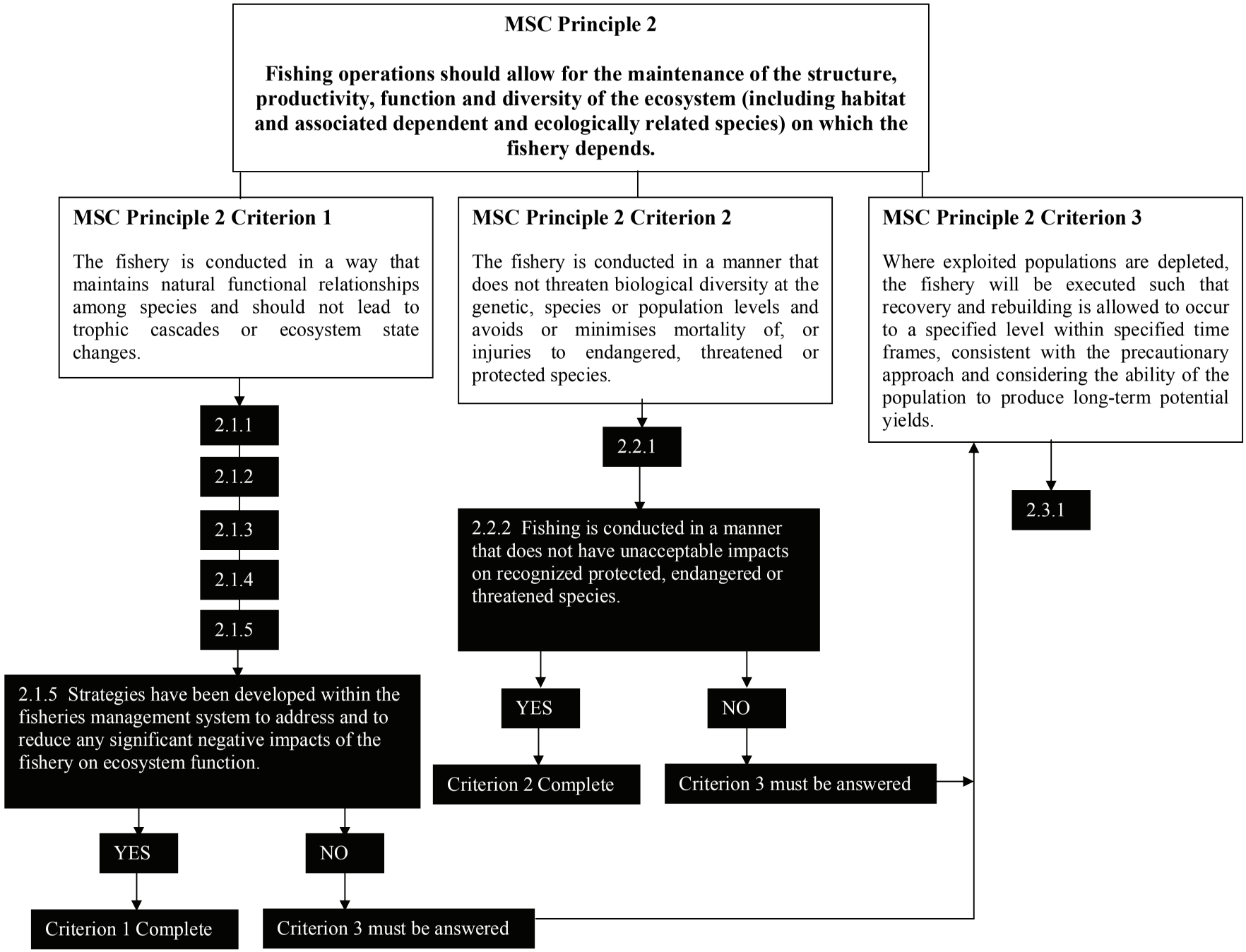
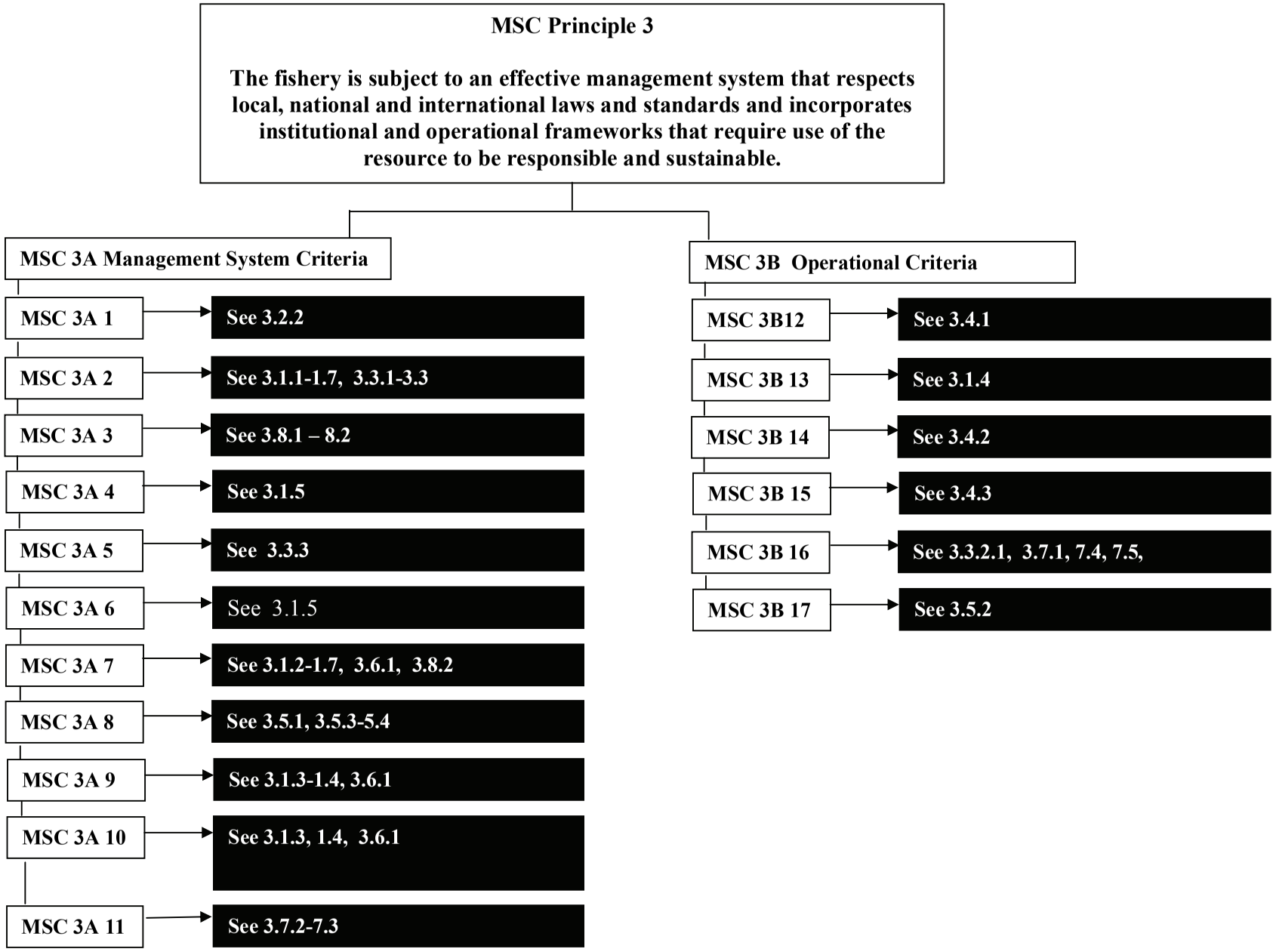

MSC Principle 1
A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.
MSC Principle 1 Criterion 1
The fishery shall be conducted at catch levels that continually maintain the high productivity of the target population(s) and associated ecological community relative to its potential productivity.
MSC Principle 1 Criterion 2
Where the exploited populations are depleted, the fisheries will be executed such that recovery and rebuilding is allowed to occur to a specified level consistent with the precautionary approach and the ability of the populations to produce long-term potential yields within a specified time frame.
MSC Principle 1 Criterion 3
Fishing is conducted in a manner that does not alter the age or genetic structure or sex composition to a degree that impairs reproductive capacity.
1.1.1
1.1.2
1.1.3
1.1.4
1.1.5
1.2.1
1.3.1
1.3.2
1.1.5 Stocks are not depleted and harvest rates are sustainable.
YES
NO
Criterion 1 Complete
Criterion 2 must be answered


MSC Principle 2
Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.
MSC Principle 2 Criterion 1
The fishery is conducted in a way that maintains natural functional relationships among species and should not lead to trophic cascades or ecosystem state changes.
MSC Principle 2 Criterion 2
The fishery is conducted in a manner that does not threaten biological diversity at the genetic, species or population levels and avoids or minimises mortality of, or injuries to endangered, threatened or protected species.
MSC Principle 2 Criterion 3
Where exploited populations are depleted, the fishery will be executed such that recovery and rebuilding is allowed to occur to a specified level within specified time frames, consistent with the precautionary approach and considering the ability of the population to produce long-term potential yields.
2.1.1
2.1.2
2.1.3
2.1.4
2.1.5
2.1.5 Strategies have been developed within the fisheries management system to address and to reduce any significant negative impacts of the fishery on ecosystem function.
YES
NO
Criterion 1 Complete
Criterion 3 must be answered
2.2.1
2.2.2 Fishing is conducted in a manner that does not have unacceptable impacts on recognized protected, endangered or threatened species.
YES
NO
Criterion 2 Complete
Criterion 3 must be answered
2.3.1


MSC Principle 3
The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.
MSC 3A Management System Criteria
MSC 3A 1
See 3.2.2
MSC 3A 2
See 3.1.1-1.7, 3.3.1-3.3
MSC 3A 3
See 3.8.1 – 8.2
MSC 3A 4
See 3.1.5
MSC 3A 5
See 3.3.3
MSC 3A 6
See 3.1.5
MSC 3A 7
See 3.1.2-1.7, 3.6.1, 3.8.2
MSC 3A 8
See 3.5.1, 3.5.3-5.4
MSC 3A 9
See 3.1.3-1.4, 3.6.1
MSC 3A 10
See 3.1.3, 1.4, 3.6.1
MSC 3A 11
See 3.7.2-7.3
MSC 3B Operational Criteria
MSC 3B12
See 3.4.1
MSC 3B 13
See 3.1.4
MSC 3B 14
See 3.4.2
MSC 3B 15
See 3.4.3
MSC 3B 16
See 3.3.2.1, 3.7.1, 7.4, 7.5,
MSC 3B 17
See 3.5.2

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100

MSC Principle 1	**A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.**

Intent	*The intent of this principle is to ensure that the productive capacities of resources are maintained at high levels and are not sacrificed in favor of short-term interests. Thus, exploited populations would be maintained at high levels of abundance designed to retain their productivity, provide margins of safety for error and uncertainty, and restore and retain their capacities for yields over the long term.*

1.1 - MSC Criterion 1	**The fishery shall be conducted at catch levels that continually maintain the high productivity of the target population(s) and associated ecological community relative to its potential productivity.**

1.1.1 TAVEL Sub-Criterion	There is adequate knowledge about the target stocks.

1.1.1.1	There is adequate knowledge of the identity of the target species.	• The target species is occasionally misidentified or misreported.	• The target species is rarely misidentified or misreported.	• The target species is never misidentified or misreported.

1.1.1.2	Knowledge of the life history characteristics of the species/stocks is adequate to conduct robust assessments.	• Basic life history characteristics (growth, maturity, fecundity and natural mortality rates) are estimated.	• There is adequate knowledge of life history characteristics of the target stock to permit estimation of BRPs (Biological Reference Points). • Life history characteristics are directly estimated, monitored and updated periodically.	• There is comprehensive knowledge of life history characteristics of the target stock which supports a high degree of confidence in the assessment of the fishery. • Dependence of life history parameters on density, environment and ecologically related species is well understood and taken into account.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
1.1.1.3	The spatial distribution (i.e., geographic and depth) of the stock(s) is known, including knowledge of seasonal migrations (i.e., adult movement and larval dispersal) within stocks.	• Geographic and depth distribution by life history stages have been estimated.	• Geographic and depth distribution by size and age is known, and there is some understanding of the factors that determine that distribution, such as variations in the physical environment. • There is some understanding of ontogenetic migration.	• There have been annual fishery independent surveys defining adult population distribution by age. • Adult and juvenile migrations and other movements are known from specific studies. • Distribution of spawning and nursery areas is known. • Seasonality and duration of larval stage are known.
1.1.1.4	There is adequate knowledge of the identity of stocks in the management area of the fishery. (All hake stocks in certification area).	• There are estimates of the geographic and temporal distribution of the stocks.	• The identity and distribution of major spawning sites is known. • Stock assessment boundaries correspond with stock boundaries. • Some genetic studies for stock identification have been conducted.	• The identity and distribution of all genetically separate stocks are known. • Genetically separate stocks are managed separately.
1.1.1.5	There is a statistically valid method for estimating abundance, including spatial variability and a statement of uncertainty.	• There is a survey that produces an index of abundance for some years.	• There is a periodic fishery – independent survey that establishes an index of abundance over the fished range. • Survey calibration is conducted in some years.	• There is a fishery-independent survey that results in an estimate of the spatial distribution of absolute density each year over the complete range.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
1.1.1.6	There is adequate knowledge of environmental influences (e.g. upwelling, ENSO regime shifts) on stock dynamics, such that the effects of fishing can be distinguished from natural fluctuations.	• The main environmental influences on stock dynamics have been characterized and considered in the stock assessment process.	• Effects of environmental influences on stock abundance have been studied, and are taken into account in the assessment. • Effects of environmental influences on distribution and availability of fish have been studied and inform the stock assessment process.	• Effects of environmental influences are quantified, well understood and incorporated in the assessments.
1.1.2 TAVEL Sub-Criterion	There is adequate knowledge about the fishery.			
1.1.2.1	Fishing effort and catch by area are known.	• Landings are reported by catch area each year. • There is a qualitative estimate of bycatch and discards from key fisheries.	• Fishing effort and catches from the target fisheries and significant by-catch fisheries are recorded through an at sea observer program with adequate statistical coverage.	• All sources of fishing mortality are measured accurately, including total catch monitoring of vessels targeting on hake and statistically based estimates of hake catch in non-target fisheries.
1.1.2.2	The distribution of size, age and sex ratio (biological parameters) of catches are measured.	• Size distribution from catches has been routinely sampled.	• Data on the biological parameters of catches in the target fishery and fishery independent surveys are available, with adequate sample sizes.	• Comprehensive data on the biological parameters of all catches and from all fishery independent surveys are available.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
1.1.2.3	Fishing methods and patterns on the target stock are well understood and recorded.	• Key spatial and temporal fishing patterns are known. • Basic gear configurations used in the fishery are known. • Gear selectivity has not been quantified.	• There is comprehensive knowledge of spatial and temporal patterns of fishing for the major target fishery. • There is comprehensive knowledge of the gear used in the major target fishery. • Gear selectivity of the gear has been estimated.	• There is comprehensive knowledge of spatial and temporal patterns of fishing for all fleets. • There is comprehensive knowledge of the gear used in all significant fisheries. • The selectivity of the gear are well estimated.
1.1.3 TAVEL Sub-Criterion	There is a robust assessment of the stocks.			
1.1.3.1	Assessment models are appropriate to the biology of the stock and the nature of the fishery.	• The model is generic and does not account for specific characteristics of either the biology of the species or the nature of the fishery.	• The stock is assessed with a statistical, age structured model, and takes account of all major sources of fishing mortality. • The assessment model incorporates all relevant sources of data including fishery independent surveys.	• The assessment model is fully spatially structured, and takes account of all sources of mortality on the target species, including predation mortality.
1.1.3.2	Stock assessment methods are statistically rigorous.	• The assessment uses generic data fitting procedures. • Uncertainty in the assessment results has been considered qualitatively.	• The assessment uses state-of-the-art methods for fitting models to data. •Uncertainty in the assessment results is quantified.	• The assessment method has been simulation tested and major outputs of management interest are precise and accurate.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
1.1.3.3	Stock assessment methods take appropriate account of major uncertainties in data and assumptions.	• Major uncertainties are identified. • Some attempt has been made to evaluate these in the assessment. • There is a moderate degree of confidence in the robustness of the model.	• The assessment takes into account major uncertainties in the data and assumptions. • The most important assumptions have been evaluated; the consequences are known. • The assessment uses parameter estimation procedures that take account of uncertainty and are recognized to comply with standards of statistical analysis.	• There is a comprehensive evaluation of sensitivities to all significant uncertainties in data and assumptions. • Retrospective patterns in the stock assessment have been identified and minimized. • The assessment method has been simulation tested and the results show that major outputs of management interest meet reasonable levels of precision and accuracy.
1.1.3.4	There is an adequate estimate of fishing mortality rates over time.	• Fishing mortality rates are estimated each year.	• Age-specific fishing mortality rates from all sources are estimated each year.	• Fishing mortality rates are estimated each year with corresponding estimates of uncertainty.
1.1.4 TAVEL Sub-Criterion	There is an adaptive and precautionary harvest strategy to manage the target stocks, including rules for setting catch limits.			
1.1.4.1	The rules for setting total allowable catches (TACs) are well defined.	• There is a process for setting TACs but this is not explicitly defined or may vary from year to year.	• An explicit harvest control rule for setting TACs is defined.	• There is a formally agreed management procedure in place that explicitly defines a monitoring strategy, a stock assessment method, and a harvest control rule for regulating catches.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
1.1.4.2	The rules include biological reference points for biomass and fishing mortality rate.	• The biological reference points are estimated but require further refinement to meet internationally recognized standards.	• Maximum fishing mortality rate and minimum biomass thresholds are defined using internationally recognized precautionary reference points for target species.	• Maximum fishing mortality rate and minimum biomass thresholds are defined using precautionary reference points that take account of impacts on target and associated species.
1.1.4.3	The harvest strategy can be shown to be precautionary (including appropriate response to uncertainty).	• A precautionary harvest strategy has been defined but not evaluated to determine effectiveness.	• The harvest strategy has been demonstrated to be precautionary, based on past management responses.	• The harvest strategy or management procedure has been formally evaluated and demonstrated to meet management targets with acceptable levels of probability.
1.1.4.4	The harvest strategy is properly applied.	• Key harvest strategy rules are properly applied although the TAC has been exceeded.	• Harvest strategy rules are implemented with few minor exceptions.	• The harvest strategy is properly applied without exception.
1.1.5 TAVEL Sub-Criterion	Stocks are not depleted and harvest rates are sustainable.		
1.1.5.1	Current stock size is above limit reference point.	•There is a reasonable chance that the stock is currently above the limit reference point (probability 25 – 50%).	•The stock is being maintained above the limit reference point (probability >50%)and is likely to be around the target reference point currently and in the future.	• The stock has been above the limit reference point in all years. •There is a very high probability that the stock is currently above the limit reference point (>90%).
1.1.5.2	Current fishing mortality rate is below limit reference point.	• There is a reasonable chance that current fishing mortality rates are below the limit reference point (probability 25 – 50%).	• Current fishing mortality rates are below the limit reference point (probability 25 – 50%). • The limit reference point is set at F_{MSY} or its proxy.	• There is a very high probability that current fishing mortality rates are below the limit reference point (>90%).

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100

1.2 - MSC Criterion 2	**Where the exploited populations are depleted, the fisheries will be executed such that recovery and rebuilding is allowed to occur to a specified level consistent with the precautionary approach and the ability of the populations to produce long-term potential yields within a specified time frame.**

Scoring Intent	**The MSC Technical Advisory Board directs that this Criterion is only scored in the instance that the candidate fishery is determined to be in a depleted state hence a recovery plan is already in action. The decision whether the fishery is in a depleted state will be made at the beginning of the Fishery Assessment process.**

1.2.1	There is a well-defined and effective strategy (rebuilding plan) to promote recovery of stocks that become depleted, including rules for setting TACs at low stock sizes that will promote recovery within reasonable time frames.	• Appropriate rebuilding measures, including reduction in exploitation, exist and are being implemented. • Measures are implemented even if they have not been tested. • Fishing mortality is further reduced if the stock is below the limit reference point.	• Appropriate rebuilding measures are being implemented to promote recovery within reasonable time frames. • Measures have been tested and can be shown to be rebuilding the stock. • Fishing mortality is reduced if the stock declines below the limit reference point, sufficient to promote rapid stock recovery.	• Appropriate rebuilding measures are being implemented to promote recovery as quickly as is possible. • Additional measures are being implemented to prevent problems in the future. • Total fishing mortality approaches zero if the stock is below the limit reference point..

1.3 - MSC Criterion 3	**Fishing is conducted in a manner that does not alter the age or genetic structure or sex composition to a degree that impairs reproductive capacity.**

1.3.1	The age, sex and genetic structure of the stock are monitored.	• Determination of population age/sex structure is based on some sampling and verification. • Some genetic information is available on the stock.	• Monitoring of the age and sex structure of the populations is adequate to detect threats to reproductive capacity. • Genetic studies of the stock have been made.	• There is comprehensive monitoring of the age and sex structure of the populations. • The genetic structure of the population is monitored.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
1.3.2	Changes in reproductive capacity are not directly attributed to fishery induced changes in the age/sex/ genetic composition of the stock.	• Any fishery-induced trends in recruitment or spawning stock levels have not been shown to be due to changes in the age/sex/genetic composition of the stock.	• There are likely no downward fishery-induced trends in reproductive capacity of the stock due to changes in the age/sex/genetic structure.	• There is a high degree of confidence that there are no downward fishery-induced trends in reproductive capacity of the stock due to changes in the age/sex/genetic structure.

MSC Principle 2	**Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.**

Intent	*The intent of this principle is to encourage the management of fisheries from an ecosystem perspective under a system designed to assess and restrain the impacts of the fishery on the ecosystem.*

2.1 - MSC P2 Criterion 1	**The fishery is conducted in a way that maintains natural functional relationships among species and should not lead to tropic cascades or ecosystem state changes.**

2.1.1 TAVEL Sub-Criterion	There is adequate understanding of ecosystem factors relevant to the distribution and life history of the target and non-target species.

2.1.1.1	The nature and distribution of habitats relevant to the life-history stages of the target species are known.	• Some habitat information exists but may not be comprehensive or up to date. • The distribution of fishing operations is known and mapped.	• The nature and distribution of all main habitats are known in moderate detail. • Information is recent. • The distribution of fishing operations is monitored.	• The geographic habitat distribution of all life-history stages is known in detail. • The spatial distribution of fishing operations is regularly monitored.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
2.1.1.2	Information is available on the trophic position and importance of the target species within the food web.	• Key prey, predators and competitors are known.	• Information is available on the position and general importance of key life stages of the target species in the food web.	• Interactions between all life stages of the target species and other species in the ecosystem have been quantified.
2.1.2 TAVEL Sub-Criterion	**Mortality of non-target species is adequately determined.**		
2.1.2.1	There is information available on the nature and extent of the bycatch (capture of non-target species).	• The main bycatch (non-target species) have been identified.	• Quantitative information is available on significant capture of non-target species • Sample size is adequate to produce statistically valid data.	• Accurate records are kept for all vessels in the fishery on the catch of non-target species of economic or ecological importance, including size information.
2.1.2.2	There is information available on the extent of discard (the proportion of the catch not landed).	• Information is available on the extent of discarding, including a species list.	• Accurate information is available to allow estimates of discard to be calculated and interpreted.	• Accurate information is available by direct observation on the extent of all discards, and the associated mortality rates.
2.1.2.3	There is information on unobserved fishing mortality (animals injured by the net but not captured; delayed mortality).	• Areas of potential unobserved fishing mortality are identified but no further information is available.	• Information from existing work has allowed qualitative estimates of unobserved fishing mortality to be made.	• Research has been carried out on unobserved fishing mortality allowing quantitative estimates to be made (or it is known that significant unobserved mortality does not occur).
2.1.2.4	There are assessments of the population status of significant bycatch species and estimates of bycatch mortality.	• Trends in the abundance of the main bycatch species are known.	• Regular population assessments are made for the main bycatch species.	• Population assessments are made for all significant bycatch species, including the mortality caused by the target species fishery.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100

2.1.3 TAVEL Sub-Criterion	**There is adequate knowledge of the effects of gear-use on habitat, the extent and type of gear losses, and operational wastes.**

2.1.3.1	There is adequate knowledge of the physical impacts of fishing gear on habitats, especially essential fish habitat.	• Main impacts of gear use on the habitat are identified including extent and location of impact. • Effects of habitat perturbations are estimated and appear stable under current levels.	• Impacts of gear use on the habitat are identified, including extent and location of use.	• There is detailed knowledge of the types of gear used in the fishery. • Fishing effort is quantified by gear type. • The physical impacts on the habitat due to use of gear have been studied and quantified.

2.1.3.2	Gear loss during fishing operations and its effects are known.	• Some recording of gear losses takes place. • Qualitative estimates are available for the effects of lost fishing gear, and loss is below unacceptable levels.	• There is knowledge of the type, quantity, and location of gear lost during fishing operations.	• There is detailed knowledge of the type, quantity and location of gear types lost during fishing operations. • The impact of gear loss on target and non-target species has been measured, and shown to have negligible effects.

2.1.3.3	There is information on the nature and extent of operational wastes from the fishery and on the potential ecosystem effects of such wastes. (e.g. processing slurry, oil, trash, nets, etc…)	• Operational wastes are measured and recorded. • Qualitative estimates are available for the effects of operational wastes.	• There is knowledge of the type, quantity, and location of operational wastes. • The impact of operational wastes on target and non-target species have been measured.	• There is detailed knowledge of the type, quantity and location of operational wastes from fishing.

2.1.4 TAVEL Sub-Criterion	**Assessments of the fishery regarding impacts on community structure, ecosystem function, on habitats or on the populations of associated species have been conducted.**

PERFORMANCE INDICATOR		SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
2.1.4.1	Impacts on ecosystem structure and function from the removal of the target species have been determined.	• Ecosystem impacts from the removal of the target species are qualitatively estimated.	• Some quantitative information is available on consequences of current levels of removal of target species.	• The ecological consequences of current levels of removal of target species have been quantified by direct study and documented. • There are no unacceptable impacts.
2.1.4.2	Impacts on ecosystem structure and function from the removal of non-target species have been determined.	• Ecosystem impacts from the removal of non-target species are qualitatively estimated.	• Some quantitative information is available on consequences of current levels of removal of non-target species.	• The ecological consequences of current levels of removal of non-target species have been quantified and documented. • There are no unacceptable impacts.
2.1.5 TAVEL Sub-Criterion	**Strategies have been developed within the fisheries management system to address and to reduce any significant negative impacts of the fishery on ecosystem function (trophic relationships, community and habitat structure).**			
2.1.5.1	Levels of acceptable impact on ecosystem function have been determined and reviewed.	• There is some information to determine acceptable impacts for main target and non-target species and habitats, but estimates have not been completed.	• Levels of acceptable impacts for key components of the ecosystem within main fishing areas have been estimated and are regularly reviewed (e.g. < 10 years).	• Levels of acceptable impact (e.g. biological reference points) for key populations and habitats have been estimated and are subject to frequent review (e.g. 1 – 5 years).
2.1.5.2	Management strategies are in place to avoid and/or to reduce impacts (i.e. physical impacts, lost gear, operational waste, effects on ecosystem structure).	• Limited management strategies exist to avoid and/or to reduce impacts on the ecosystem.	• Management strategies exist to detect and to reduce impacts, although these have not been fully tested. • The management strategies are designed to adequately protect key aspects of the ecosystem within main fishing areas.	• Tested management strategies are in place to detect and to reduce impacts. • The management strategies are designed to adequately protect ecosystems, habitats and populations of target and non-target species throughout the range of the fishery.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100

2.2 - MSC P2 Criterion 2	**The fishery is conducted in a manner that does not threaten biological diversity at the genetic, species or population levels, and avoids or minimizes mortality of, or injuries to endangered, threatened, or protected species.**

2.2.1 TAVEL Sub-Criterion	**Fishing is conducted in a manner that does not have unacceptable impacts on biological diversity.**

2.2.1.1	The effects of the fishery on biological diversity and productivity have been determined.	• There are no direct studies on the effects of the fishery on biological diversity and productivity. • Qualitative estimates of impacts on biodiversity and productivity have been made using general information from the fishery and the scientific literature.	• Effects on biological diversity and productivity within fishing areas are being studied. • Programs are in place to determine acceptable limits of impacts in fishing areas, and these are considered in the fishery management.	• Effects on biological diversity and productivity are well documented. • Acceptable tested/justified limits have been identified and are used to assess fishery related impacts. • Programs that reduce impacts on biological diversity to acceptable levels are in place.

2.2.2 TAVEL Sub-Criterion	**Fishing is conducted in a manner that does not have unacceptable impacts on recognized protected, endangered or threatened species.**

2.2.2.1	There is information on the presence and distributions of listed (rare, threatened, or endangered) or protected species in the main fishing areas.	• There is a program implemented to identify listed and protected species directly related to the fishery.	• Key listed and protected species directly affected by the fishery have been identified. • Monitoring programs are in place to characterize geographic distribution and extent of impact.	• There is knowledge of all populations of protected and listed species directly or indirectly related to the fishery. • The type and distribution (spatial and temporal) of critical habitats for listed and protected species have been identified.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
2.2.2.2 Population sizes and trends of listed or protected species are adequately known, including interactions with the fishery.	• Trends in the abundance of listed or protected species are known. • The main interactions directly related to the fishery are known.	• Population assessments exist for listed or protected species. • Quantitative estimates are made of the interactions between the fishery and listed and protected species.	• Regular assessment of listed and protected species occurs. • Reliable quantitative estimates are made of the interactions between all protected species and the fishery, and qualitative information is available on indirect effects.
2.2.2.3 Trophic (predator-prey) interactions between the target species and listed or protected species have been adequately determined.	• The main trophic interactions between the target species and listed and protected species are known.	• Research programs exist to quantify the trophic interactions between the target species and listed and protected species.	• Direct quantitative studies have been conducted on the interactions between the target species and listed and protected species. • Diets and foraging requirements of listed and protected species are well known.
2.2.2.4 Permitted take levels for listed (rare, threatened, or endangered) or protected species have been established.	• Permitted take levels for listed or protected species are under development.	• Permitted take levels have been established for the main listed or protected species.	• Permitted take levels have been established for all listed or protected species. • Permitted take levels are established for subpopulations and/or geographic areas.
2.2.2.5 Management strategies are in place to keep the impacts of the fishery on listed and/or protected species within agreed and sustainable limits.	• Limited management strategies exist to identify and avoid/reduce fishery impacts on protected species. • Programs to mitigate impacts are under development.	• Management strategies are implemented to detect and to reduce fishery impacts on key listed and protected species within the main fishing areas. • Take levels do not exceed the permitted levels.	• Tested management strategies are implemented to detect and to reduce impacts on all protected, endangered, or threatened species.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100

2.3 - MSC P2 Criterion 3	**Where exploited populations are depleted, the fishery will be executed such that recovery and rebuilding is allowed to occur to a specified level within specified time frames, consistent with the precautionary approach and considering the ability of the population to produce long-term potential yields.**

Scoring Intent	**The MSC Technical Advisory Board directs that this Criterion is only scored in the instance that non target species are determined to be in a depleted state hence a recovery plan is already in action. The decision whether the non target species are in a depleted state will be made at the beginning of the Fishery Assessment process.**

2.3.1 TAVEL Sub-Criterion	**There are management measures in place that allow for the rebuilding of depleted populations.**

2.3.1.1	There is sufficient information to allow determination of necessary changes in fishery management to allow recovery of depleted populations to specified levels.	• There is some information on fishery impacts on non-target species, which can be used to alter fishing practices to rebuild depleted species.	• There is adequate information, combined with a precautionary approach wherever necessary, to allow alterations to be made to fishing practices to rebuild depleted populations.	• There is a clear understanding of the fishery impacts on non-target species. • Intervention measures based on this understanding have been tested and confirmed effective.

2.3.1.2	Management measures are in place for the Pacific hake fishery to allow recovery of depleted populations within specified time frames.	• A mechanism exists to modify fishing practices in light of the identification of unacceptable impacts.	• Management measures are in place to modify fishery practices in light of the identification of unacceptable impacts. • Measures afford rebuilding of depleted populations.	• Management measures have been demonstrated to be effective in allowing recovery of depleted populations.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100

MSC Principle 3	**The fishery is subject to an effective management system that respects local, national and interjurisdictional laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.**

Intent	*The intent of this principle is to ensure that there is an institutional and operational framework for implementing Principles 1 and 2, appropriate to the size and scale of the fishery.*

3.1 TAVEL Criterion 1	The management system has a clearly defined scope capable of achieving MSC Principles 1 and 2 and their associated criteria. This includes short and long-term objectives and associated strategies including those for managing the ecological impacts of fishing, consistent with a well-managed fishery.

3.1.1 *(Relates to MSC Criterion 3.2)*	All agencies (federal, state, provincial, tribal and interjurisdictional) in the fisheries management system have clear-cut lines of responsibility. Their functions, particularly those involving interactions between these authorities are clearly defined.	• Federal, state, provincial, tribal and interjurisdictional organizations responsible for interacting in the management process have been identified. • Functions and responsibilities among entities are generally understood.	• Functions and responsibilities requiring interactions among the entities are explicitly defined and codified. • Agencies with jurisdiction agree to and support a common management policy, which requires use of the resource to be responsible and sustainable..	• Interactions between entities are regularly evaluated and modified where to ensure consistency and fairness.
3.1.2 *(Relates to MSC Criteria 3.2, 3.7)*	The management system contains clear short- and long-term objectives	• Short- and long-term resource and environmental objectives are implicit within the management system.	• The management system contains explicit short- and long-term resource and environmental objectives that are periodically evaluated.	• The management system contains clear and explicit short- and long-term resource, environmental, and socio-economic objectives that are regularly measured by performance indicators.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
3.1.3 *(Relates to MSC Criteria 3.2, 3.7, 3.9, 3.10)*	The management system incorporates and applies an adaptive and responsible exploitation strategy that is consistent with MSC Principle 1.	• Management objectives seek to maintain stocks at high levels of productivity. • The harvest control strategy is informal but consistent with objectives. • The harvest control strategy takes into consideration uncertainties in the status of the stocks. • The management system provides information for assessing the status of target stocks.	A responsible management strategy is followed, including: • explicit long-term management objectives which seek to maintain stocks at high levels of productivity. • an explicit harvest strategy which accounts for uncertainty. • the management system estimates all commercial catches, landings and by-catch and annually assesses the status of target stocks.	A responsible management strategy is followed, including: • a management plan that is explicit. • an explicit harvest strategy, that is precautionary, accounting for variances in survey estimates, uncertainties in stock assessment advice, and other risk factors.
3.1.4 *(Relates to MSC Criteria 3.2, 3.7, 3.9, 3.10, 3.13)*	The management system incorporates and applies tactics (e.g. no take zones or closed areas) to manage ecological impacts (e.g. impacts on spawning and nursery areas, alterations in food webs and habitats, food competition, and disruption of prey fields and foraging behavior) of fishing using an approach consistent with MSC Principle 2.	• Where impacts have been identified, actions have been taken to develop appropriate control measures.	• Where assessments demonstrate possible ecological impacts, the management plan explicitly takes such impacts into account. • The regulation of the fishery to manage ecological impacts of fishing is consistent with the precautionary approach.	• The management system includes a plan with clear long-term, explicit objectives for managing ecological impacts of fishing. • The plan requires regular quantitative assessments of the status of ecosystem components, taking into account all significant (identified or estimated) ecological impacts of the fishery. • The plan recognizes ecosystem complexity and minimizes the ecosystem effects of hake fishing.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
3.1.5 *(Relates to MSC Criteria 3.2, 3.4, 3.6, 3.7)*	The management system takes into account socio-economic impacts in the development of management plans.	• The fishery management system gives consideration to the long-term socio-economic interests of people and communities dependent on fishing. • The fishery is free from subsidies that directly and substantially promote overcapacity and excess input use. • The management system considers possible behavioral responses to effort control, (e.g.. shorter seasons cause investments in vessel mobility). • Management measures exist to limit entry and prevent excessive capitalization.	• The management system incorporates objectives and strategies that can afford improvement in long-term socio-economic well-being of people and communities dependent on fishing for livelihoods. • The management system promotes measures that achieve conservation objectives in a cost-effective manner. • Measures for controlling effort take into account the need to reduce race-to-fish incentives. • The management system has adopted measures to prevent excess capacity growth.	• Managers have adopted measures that give individual fishermen incentives to increase the economic value rather than the volume of catch. • The fishery management system provides incentives that foster a stewardship ethic among participants.
3.1.6 (Relates to MSC Criteria 3.2, 3.7, 3.10)	The management framework includes a plan to assess causes of stock declines and promote recovery.	• The causes of decline cannot be differentiated, but some catch or effort reductions are implemented by regulation.	• The causes of decline can be differentiated into fisheries and other causes. • Harvest control measures to promote recovery are coordinated with other responsible authorities.	• Specific measures to remove fishery-dependent causes and adapt to other causes to promote recovery are developed in a comprehensive plan with other authorities.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
3.1.7 (*Relates to MSC Criteria 3.2, 3.7*)	Procedures exist for measuring management performance relative to the objectives.	• Measures are used to gauge fishery management performance relative to objectives.	• Periodic, comprehensive measurement of performance indicators is undertaken. • Management measures are adjusted to meet objectives when necessary.	• Procedures are used for regular empirical measurement of performance relative to the objectives. • There is a regular process for adapting management measures when objectives are not being met.

3.2 TAVEL Criterion 2	The management system recognizes applicable legislative and institutional responsibilities and coordinates implementation on a regular, integral and explicit basis.

3.2.1 *(Relates to MSC Criterion 3.16)*	The fishery is managed and conducted in a manner that respects international conventions, treaties, and domestic laws related to the hake fishery.	• The management system makes consistent efforts to operate in accordance with all substantive and procedural aspects of applicable conventions, agreements and law. • No violations have been identified that would jeopardize the management of fisheries resources.	• The management system is in compliance with all substantive and procedural aspects of applicable conventions, agreements and law.	• The management system is clearly in compliance with all procedural aspects of applicable conventions, agreements and law which can directly be applied to the hake fishery. • No agent of the management system, including its component institutional entities, has been found to be in violation of any order of any domestic court of jurisdiction on any matter related to performance of any statutory duty concerning the fishery.
3.2.2 *(Relates to MSC Criterion 3.1)*	The fishery is managed and conducted such that state and provincial requirements fit with the federal regulatory standards for the fishery as per the applicable national acts.	• Applicable state or provincial regulations are consistent with the key requirements of the federal act (s).	• Applicable state or provincial regulations implicitly incorporate the requirements of the federal act(s).	• Applicable state or provincial regulations explicitly incorporate and is in compliance with all aspects of the federal act(s).

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100

3.3 TAVEL Criterion 3	The management system includes a rational and effective process for acquisition, analysis and incorporation of new scientific, social, cultural, economic and institutional information.

3.3.1 *(Relates to MSC Criterion 3.2)*	The management system solicits and assesses relevant information from all categories of stakeholders.	• The management system has mechanisms to receive information and policy recommendations from stakeholders and technical sources within and external to the fishing community. • Information and advice is evaluated but there are no formal procedures for responding to such information and advice.	• The management system has a formal and open process to solicit and receive relevant information and policy recommendations from all significant public and private stakeholders. • The management system has explicit procedures for assessing and incorporating information from outside sources and does not discriminate against information on the basis of the stakeholder category from which it was supplied.	• The management system has a stable, well-led, predictable, open and tolerant process to solicit relevant information from public and private stakeholder interests. • There is an active program of familiarizing stakeholder groups with the management system's principles and criteria for decision making. • The management system is periodically reviewed to ensure that relevant outside stakeholder interests are considered and incorporated into the decision process.

3.3.2 *(Relates to MSC Criterion 3.2)*	The management system presents decision makers with clear, useful, and relevant information about policy options and their likely consequences.	• The management system presents decision makers with clearly differentiated policy alternatives for action. • Decision makers analyze formal and informal information to predict the consequences of various options and discriminate among them to determine best actions.	• Policy options are responsive to relevant stakeholders via a process prescribed by fisheries management law and procedures. • The management system's decision makers show evidence of understanding and consistently incorporating the information provided to them. • Technical information reflects the most recent and rigorous scientific understanding.	• The management system provides timely and comprehensive information to decision makers. • Information gaps and uncertainties are clearly described and presented to decision makers.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
3.3.3 *(Relates to MSC Criteria 3.2, 3.5)*	The management system provides for timely and fair resolution of disagreements arising within the fishery management system, including any disputes with third parties.	• Informal dispute resolution mechanisms are in place to resolve interjurisdictional or third party conflicts.	• The management system has codified mechanisms for timely resolution of significant disputes arising within or external to the system. • The management system's dispute resolution procedures are open and transparent.	• The management system documents the nature and disposition of disputes. • The management system's dispute resolution procedures show no evidence of a pattern of discrimination against any participants in other jurisdictions or significant stakeholder interest.
3.4 TAVEL Criterion 4	The management system and fishery implements measures and strategies (by rule or by voluntary action of the fishery) that demonstrably reduce by-catch, destructive fishing practices and operational waste.			
3.4.1 *(Relates to MSC Criterion 3.12)*	The management system applies gear restrictions and mandatory practices to minimize bycatch where necessary.	• The fisheries management system has implemented measures for minimizing bycatch. • Qualitative evidence from at-sea and dockside observations indicates some success in reducing bycatch.	• The management system uses a formal and comprehensive program to reduce bycatch to acceptable levels, including explicit bycatch objectives. • There is independent evidence of fishery-wide adoption of measures undertaken to reduce by-catch.	• The management system has achieved fishery-wide acceptable by-catch objectives. • The management system has statistically demonstrated the effectiveness of bycatch reduction measures through independent at-sea measurement.
3.4.2 *(Relates to MSC Criterion 3.14)*	The fishery does not use destructive fishing practices (e.g. poison, explosives).	• There is no evidence that destructive fishing practices take place within the fishery.	• Fishery management system does not allow the use of destructive fishing practices. • Monitoring and enforcement efforts are sufficient to identify a problem if it exists.	• Active monitoring and enforcement in the fishery has verified that no destructive fishing practices exist.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
3.4.3 *(Relates to MSC Criterion 3.15)*	The fishery minimizes operational wastes such as lost fishing gear, petroleum product leaks or discharges, on-board spoilage of catch, etc.	• The fishery participants encourage the reduction of operational wastes.	• The fishery management system has established targets and implemented rules to minimize operational wastes. • There is evidence that operational wastes have been reduced.	• The management system provides fishermen with incentives to minimize operational wastes. • Evaluation of the monitoring and enforcement programs demonstrates targets for reducing operational waste have been achieved.
3.5 TAVEL Criterion 5	A research program is conducted to support management needs.			
3.5.1 *(Relates to MSC Criterion 3.8)*	There is a research program that supports management of target species and protection of the ecosystem.	• Research supports short-term information needs for stock assessment and evaluation of effectiveness of harvest control measures. • Major areas requiring further research have been identified.	• A fishery independent survey for the target species exists. • The research program provides the management system with reliable, timely information on the status of the stocks and of other ecosystem indicators required for management. • There is internal review of the content and scope of the research program. • Longer term research periodically provides improvements in basic scientific understandings of the stock, ecosystem and fishery economics. • Research is planned and prioritized to address major gaps in knowledge.	• There are regular reviews of the content and scope of the research program by peer groups and stakeholders. • Research provides continuing, significant progress in scientific understanding of: 1) Fluctuations in target and impacted non-target species, 2) Effectiveness of harvest strategies, 3) Effects of fishing on the ecosystem, • Funding is adequate to address significant knowledge gaps, is adjusted in a timely and appropriate manner to serve changing research priorities, and is predictable over a long-term time scale.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
3.5.2 *(Relates to MSC Criterion 3.17)*	Fishermen assist in the collection of catch, discard and other relevant data.	• Fishermen are involved in the collection of some catch, discard and other information.	• Fishermen are regularly involved in the collection and recording of relevant catch, discard and other information.	• Fishermen assist significantly in the collection and recording of all appropriate catch, discard and other information.
3.5.3 *(Relates to MSC Criterion 3.8)*	Relevant research is carried out by the fishing industry and other organizations and is taken into consideration by the management system.	• The management system is aware of research carried out by the industry and other organizations and appropriate elements of this are taken into consideration for management.	• Applicable research carried out the fishing industry and by other organizations is used by the management system.	• Industry research is co-coordinated with existing research plans of the management system.
3.5.4 (*Relates to MSC Criterion 3.8*)	Research results are available to interested parties in a timely fashion.	• The majority of research results are available to interested parties.	• Research results are available to interested parties on a regular and timely basis.	• Research results are proactively made available to all interested stakeholders on a regular basis and in a timely manner.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100

3.6 TAVEL Criterion 6	The management system effectively monitors all relevant performance aspects of the fishery.

3.6.1 *(Relates to MSC Criteria 3.7, 3.9, 3.10)*	The management system has procedures to measure and record and independently evaluates all aspects of the fishery to provide a basis for assessments of stocks and program performance.	• The management system has a program that monitors the basic indicators of the stock status. • The program is subject to internal evaluation on a periodic basis. • Monitoring results are compiled, analyzed, and disseminated to fishery managers.	• The management system has a comprehensive monitoring program including adequate observer coverage (at-sea personnel/video). • The monitoring program has been subjected to independent outside review to identify gaps. • The results of monitoring efforts are compiled, analyzed, and disseminated to fishery managers such that management and research efforts can be informed as to needed improvements in a timely manner.	• Full monitoring records are made available to relevant research and management bodies. • Observer coverage in the fisheries is sufficient such that the management system can demonstrate a consistent ability to monitor all relevant aspects of the fishery and employs an independently verified system for validation of reported results.

3.7 TAVEL Criterion 7	The management system ensures that there is a high degree of compliance in the fisheries with management measures and directives regarding fishing practices required by the system.

3.7.1 *(Relates to MSC Criterion 3.16)*	Fishery participants are aware of the management system and legal and administrative requirements.	• Fishery participants are aware of key management and legal requirements.	• Fishery participants are aware of management and legal requirements to conduct the fishery and are kept up to date with new developments.	• All fishery participants are aware of management legal requirements through a clearly documented and communicated mechanism such as a code of conduct.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100
3.7.2 *(Relates to MSC Criterion 11)*	Surveillance and enforcement are in place to ensure that the fishery complies with requirements of the management system.	• Surveillance activities and enforcement measures are reactive and focused on key management measures.	• Enforcement systems have been implemented and there is control and high compliance with most management measures that affect fishing mortality over the key fishing areas.	• There is a high degree of control on and compliance with all regulations that affect fishing mortality and stock health, for target and non-target populations, over all fishing areas.
3.7.3 (*Relates to MSC Criterion 11)*	Corrective actions can be applied in the event of non-compliance and there is evidence of their effectiveness.	• Mechanisms exist or are being developed to address non-compliance.	• There are explicit measures used to address non-compliance in a formal or codified system.	• Corrective actions are applied in the event of non-compliance, and these have been demonstrated to be effective.
3.7.4 *(Relates to MSC Criterion 3.16)*	There is a clear record of enforcement actions (by-catch limits, mesh regulations and closed areas and seasons).	• Informal evidence of violations and corrective action exist.	• Formal evidence of violations and corrective actions is available and readily retrievable. • Information is sufficiently detailed to characterize violations.	• Enforcement activities are fully documented through at-sea, dockside as well as investigative actions. • The outcomes of enforcement actions are considered in adjusting enforcement efforts.
3.7.5 *(Relates to MSC Criteria 3.11, 3.16)*	The fishery is fully compliant with fishing regulations and directives to fishing practices.	• Information on the extent of compliance is available. • A basic analysis of compliance has been conducted. • The majority of harvesting is compliant.	• An analysis of surveillance and monitoring activities indicate overall compliance to fishery regulations that impact fishing mortality, with few exceptions. • There is a record of consistent prosecution of violations in the fishery.	• The management system has comprehensive monitoring and enforcement systems to evaluate compliance to regulations. • The judicial system has demonstrated a consistent willingness to penalize violators. • The fishery operates with no significant patterns of non-compliance.

PERFORMANCE INDICATOR	SCORING GUIDEPOST 60	SCORING GUIDEPOST 80	SCORING GUIDEPOST 100

3.8 TAVEL Criterion 8	The performance of the management system is regularly and candidly evaluated in a systematic fashion and the system responds positively to appropriate recommendations for change.

3.8.1 *(Relates to MSC Criterion 3.3)*	The management system provides for program evaluation and review.	• The management system conducts informal, internal program reviews.	• The management system has explicit provision for an objective, systematic, external evaluation of management performance. • The criteria for and results of the evaluation of management performance are made public. • Reviews are carried out at time intervals that foster continual improvements in management system.	• The criteria for and results of the on-going evaluation of management performance are made public and reflect input from all interested participants and stakeholders. • The management system seeks and uses the results of the on-going evaluation to improve management performance.

3.8.2 *(Relates to MSC Criteria 3.3, 3.7)*	The management system requires a response to outcomes of internal or external reviews.	• The management system is informally responsive to reviews of management performance.	• The management system has established explicit objective guidelines for responding to internal and external reviews of management performance. • The management system shows evidence of improved performance based on the results of internal and external reviews of management performance.	• The management system has established comprehensive, objective standards or triggers for responding to internal and external reviews of management performance. • The management system has demonstrated a consistent pattern of responding to the results of internal and external reviews of management performance.