	Marine Stewardship Council
Pe	rformance Criteria & Scoring Guideposts Against The Marine Stewardship Council Principles & Criteria
	Western Australian Rock Lobster Fishery Issue

Committee responsible for this Checklist

The Standards Council of the Marine Stewardship Council is the Committee that has the overall responsibility for the annual review and as necessary amendment of this document.

This document is intended to be a living document and will be reviewed on an annual basis. The next review will take place in March 2000.

Amendments Issued Since Publication

Amd. No	Date	Description Of Amendment
1	28/10/99	Draft placed in public domain.

Foreword

Performance Criteria and Scoring Guideposts are an important part of the MSC Certification Methodology.

Their use by MSC Accredited Certifiers reduces the uncertainty and increases the consistent delivery of the certification decision making process.

Although it is hoped that a generic set of Performance Criteria and Scoring Guideposts will be produced by March 2000 for all fisheries, in the meantime, each certifier will produce a set of Performance Criteria and Scoring Guideposts as a product of each certification process. These will be approved by the MSC prior to use.

The first Performance Criteria and Scoring Guideposts document is for the Western Australian Rock Lobster Fishery. The second document to be produced will likely be Performance Criteria and Scoring Guideposts for the Alaska Salmon Fisheries. All other certification teams are encouraged to use these documents as aids in establishing Performance Criteria and Scoring Guideposts in their individual performance assessments. In February 2000, the MSC will convene a workshop to harmonize these and other efforts produced by certifiers as part of its effort to establish a baseline set of Performance Criteria and Scoring Guideposts for all future MSC certifications.

It is essential that individual performance assessments using these Performance Criteria and Scoring Guideposts are conducted using the MSC Certification Methodology.

This means the Performance Criteria are to be used in conjunction with the Analytical Hierarchy Process (see MSC Methodology) using pairwise comparisons to enable a score to be derived for a fishery and hence a decision arrived at as to that fisheries compliance with the Marine Stewardship Council's Principles and Criteria for Sustainable Fishing. MSC Secretariat - October 1999.

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AUSTRALIAN WESTERN ROCK LOBSTER

Performance Criteria and Scoring Guideposts - Interpreted from the MSC Principles & Criteria

Principle 1

Indicator 1A: There is adequate knowledge about the target species being fished.

The intent of this performance indicator is to evaluate the extent to which there is sufficient knowledge of the life history, distribution and abundance of the target species to allow an adequate evaluation of the effects of the fishery on the target species.

Elements considered in scoring include that:

- 1. There is adequate knowledge of the identity of the target species, and its range and stock structure.
- 2. There is adequate knowledge of the life history (fecundity, growth, natural mortality) and behavior of the target species.
- 3. There is adequate information on trends in abundance of spawning stock, larval recruitment, and fishery recruitment over time.

100% Scoring Guidepost

- There is comprehensive knowledge of the taxonomy of the species, its range, and of any genetic sub-structuring of fished populations based on state-of-the-art techniques.
- There is comprehensive knowledge of key life history parameters, and of the behavior and ecology of key life history stages.
- Fishery independent surveys of spawning stock size and recruitment are available over a substantial period of the history of the fishery.

80% Scoring Guidepost

- The target species is unlikely to be confused with any other species. Research data are adequate to assess whether multiple stocks are being fished.
- Estimates are available of fecundity at size, growth rates, and natural mortality. There is some knowledge of seasonal patterns of movement or availability.
- Some fishery independent estimates of abundance are available (or fishery dependent estimates have been shown to be reliable).

Indicator 1B: There is adequate knowledge about the fishery

The intent of this performance indicator is to evaluate the extent to which there is sufficient knowledge of the fishery, including spatial and temporal patterns in catch and effort by all fishing methods, to allow an effective evaluation of the effects of the fishery on the target species.

Elements considered in scoring include that:

- 1. There is adequate monitoring of catch and effort.
- 2. There is adequate information on fishing methods and fishing patterns.
- 3. There is adequate information on gear selectivity and on changes in catchability over time.

100% Scoring Guidepost

- There are comprehensive data available at fine spatial and temporal resolution on fishing effort in all sectors and on catches and discards (by size and sex) from all fishing methods.
- There is an at-sea observation program to measure discarding and fishing practices.
- Research programs have established gear selectivity, discard mortality, and key determinants of catchability including, where relevant, environmental influences and changes in fishing technology and practices.

80% Scoring Guidepost

- Total annual catch and effort by major fishing methods are known for the major spatial zones of the fishery. Data are available to estimate levels of discards. Data on size composition of the catch are available on a regular basis.
- Gear selectivity of major fishing methods is known.
- Standardized catch rates are available for assessments, if required.

Indicator 1C: There is a well-defined and effective harvest strategy to manage the target

populations

The intent of this performance indicator is to evaluate the extent to which there is a well-defined and effective harvest strategy in place that will maintain the target species at productive levels, or recover the target species to productive levels if already below such levels.

Elements considered in scoring include that:

- 1. Fishing effort is contained.
- 2. Management tools (input and/or output controls) are specified and appropriate.
- 3. The relationship between assessment advice and subsequent decisions is clear, and action is timely.

100% Scoring Guidepost

- There is an explicit and precautionary harvest strategy in place for management of the target species at sustainable levels.
- The harvest strategy specifies monitoring and stock assessment methods, and agreed rules for setting management measures on the basis of assessments.
- Effort levels are commensurate with the productive potential of the resource.

80% Scoring Guidepost

- There is an implicit harvest strategy in place that constrains harvest rates to sustainable levels.
- The harvest strategy is adaptive, and management measures are set on the basis of best scientific information, taking account of uncertainty.
- Effort levels are contained, and if excessive, measures are in place that are reducing overall levels of effort.

Indicator 1D: There is a robust assessment of the impacts of fishing on the target species.

The intent of this performance indicator is to evaluate the extent to which the methods used to assess the current and future impacts of the fishery on the target species are robust and rigorous.

Elements considered in scoring include that:

- 1. The assessment models used are appropriate to the biology of the species and the nature of the fishery.
- 2. The methods used to fit the models to data are statistically rigorous.
- 3. The sensitivity of the assessment to major uncertainties in data and assumptions has been evaluated and is reflected in management advice.
- 4. The assessment evaluates current stock status relative to prescribed reference points, and the future consequences of current harvest strategies.

100% Scoring Guidepost

- Assessment models and methods have been developed specifically for, and are appropriate to, the species and fishery in question and take account of all known and significant impacts of the fishery on the target species.
- Agreed harvest strategies are in place that specify monitoring strategies, assessment methods and decision rules for determining management response to assessment results. These harvest strategies have been formally evaluated using Monte Carlo simulation methods that take account of a wide range of uncertainties.

80% Scoring Guidepost

- Assessment models and methods are appropriate to the species and fishery and meet internationally accepted standards of rigor.
- Current stock size and harvest rates have been estimated and evaluated against appropriate limit reference points.
- The assessment takes account of key uncertainties and these are reflected in the management advice.

Indicator 1E: Stocks are not depleted and harvest rates are sustainable

The intent of this performance indicator is to evaluate whether the target species is currently overfished, and whether current harvest levels are sustainable.

Elements considered in scoring include that:

- 1. The assessment indicates that stocks are above specified limit reference levels.
- 2. The assessment indicates that harvest rates are below specified limit reference levels.
- 3. The limit reference points used meet acceptable international standards.

- The limit reference point selected for the stock is at least as precautionary as B_{MSY}.
- Weighted across all major uncertainties, there is better than a 90% chance that the stock is above the limit reference point.
- The limit reference point selected for the exploitation rate is at least as precautionary as F_{MSY}.
- Weighted across all major uncertainties, there is better than a 90% chance that the current exploitation rates are below the limit reference point.

- A biomass limit reference point has been chosen that is appropriate for the species and is above levels for which major declines in recruitment have been observed or are expected.
- The stock is assessed to have a better than 70% chance of being above the limit reference point.
- A limit reference point has been chosen for the exploitation rate that is appropriate for the species.
- There is greater than a 70% chance that the current exploitation rate is below the limit reference level.

Principle 2

Indicator 2A: There is adequate knowledge of the ecosystem and its values where the

fishery operates

The intent of this performance indicator is to enable an evaluation of the extent to which there is sufficient knowledge of the ecosystem and its values so that the fisheries management system can determine the nature of the effects of fishing on the ecosystem. This includes the extent to which there is a sufficient and appropriate process that operates to gather such knowledge.

Elements considered in scoring include that:

- 1. Knowledge of the distribution of habitats and major assemblage types in relation to the distribution of the fishery is adequate.
- 2. Knowledge of the species diversity, population structures and the natural trophic relationships among species throughout the fished areas is adequate.
- 3. The types and distribution of functional feeding guilds of hard and soft substrates in the fished areas is well known.
- 4. The distributions of protected species are well known, together with the nature and distributions of their critical habitats.
- 5. Knowledge of the natural variability in the ecosystem is adequate, including the natural physical forcing factors such as dominant currents, seasonal patterns in oceanographic conditions, and river or coastal runoff.

100% Scoring Guidepost

- The major habitat types have been determined and mapped across the areas where the fishery operates, using a comprehensive biophysical habitat classification.
- There is comprehensive comparative data with non-fished but otherwise comparable ecosystems on species diversity, population structures and the natural trophic relationships among species.
- There is comprehensive comparative data with non-fished but otherwise comparable ecosystems on the types and distribution of functional feeding guilds of hard and soft substrates.
- The distributions of protected species and the habitats upon which they depend have been identified and mapped, including an assessment of temporal variability.
- The dominant natural large-scale factors responsible for structuring the coastal ecosystems and their composition are known, and the nature, spatial and temporal extent of the dominant ecological effects of the major ocean currents and river inputs have been defined.

80% Scoring Guidepost

- There is knowledge of the major types of habitat in the area of the fishery, and aspects of their distribution.
- Research has been or is being undertaken on the predators and prey of the lobster.
- The presence and distribution of protected species in the area of the fishery is known.
- There is knowledge of the natural variability in the ecosystem, including natural physical forcing factors such as dominant currents and seasonal patterns in oceanographic conditions.

Indicator 2B There is adequate knowledge of the fishery-based risk factors for the ecosystems

The intent of this performance indicator is to evaluate the extent to which knowledge of the operations of the fishery is sufficient for the fisheries management system to be able to identify the nature and importance of potential risks that the fishery may pose to the ecosystem. This includes the use of specific gear types, fishing deployment techniques, mooring and channel creation in fishing areas, and ancillary factors such as ropes, anchors, buoys, bait, discarded consumables, gear lost at sea, potential introductions of pest species, the impact of discards, the nature and extent of bycatch, and the disturbance to normal behavior of icon species.

Elements considered in scoring include that:

- 1. There is adequate knowledge of the potential for effects of the type of gear used in the fishery on the ecosystems, habitats and species that occur within the fished areas.
- 2. There is adequate knowledge of the potential for effects of the fishery operations on the ecosystems, habitats and species that occur within the fished areas.
- 3. There is adequate knowledge of the potential for ecosystems, habitats and species that occur within the fished areas to recover after fishing (or the fishery activity) has been removed.

- The extent of potential risks from fishing gear on the ecosystems, habitats and species that occur in the fished areas have been studied in detail and quantified, including the nature of any irreversible changes.
- The extent of potential risks from fishing operations on the ecosystems, habitats and species that occur in the fished areas have been studied in detail and the risks are quantified, including the nature of any irreversible changes.

80% Scoring Guidepost

- There is adequate knowledge of the types of fishing gear used, and the extent and location of their use.
- There is adequate knowledge of fishing practices, including levels and types of bycatch and discards, and amount and type of bait.
- There is adequate knowledge of lost gear and disposable wastes.

Indicator 2C: A scientifically defendable ecological risk assessment has been conducted to

determine the potential impacts of the fishery on the environment.

The intent of this performance indicator is to evaluate the extent to which there are robust assessments or predictions of impacts of the fishery, and if they are based on reliable methods for estimating risks, inferring or detecting ecological changes, use data derived from robust sampling designs, and could infer important ecological changes if they were occurring.

Elements considered in scoring include that:

- 1. There have been adequate studies of, or assessments of, the impacts in space and time of the fishery on the ecosystem.
- 2. Impact detection and assessment is based on appropriate ecological understanding, on assumptions, sampling designs and inferential models that are appropriate, and uses space and time scales that are ecologically important.
- 3. The cause-effect models used in experimental studies to evaluate the nature of fishery impacts are appropriate, including their ecological, toxicological and statistical basis.
- 4. The natural dynamics of the ecosystem is adequately accounted for in determining the fishery-based impacts.
- 5. Factors outside the fishery management system that can have an impact on the fishery or the ecosystem are adequately considered in determining fishery-based impacts.

100% Scoring Guidepost

- The effects of the fishery have been determined by detailed comparative studies between fished and non-fished but otherwise comparable ecosystems, across large space and time scales and using a broad range of ecological attributes.
- Studies of causes and effects in the fishery are comprehensive across habitats, functional guilds, and protected species, and use ecologically important attributes and statistically robust designs.
- The impact-detection designs include space and time across a range of scales.
- The impact-detection designs include and control for the effects of factors outside the fishery in determining fishery impacts.

80% Scoring Guidepost

- There has been a comprehensive and peer-reviewed evaluation of the risks posed by the fishery to the environment (ecological risk analysis), based on existing information.
- Such an evaluation is based, at least in part, on information from fished versus unfished areas.
- There have been studies to address specific identified impact issues, and these have evaluated ecological risks using scientifically robust methods.

Indicator 2D: The fishery does not have unacceptable impacts on the ecosystem structure or

function, on habitats, or on the populations of dependent or otherwise

associated species.

The intent of this criterion is to evaluate the extent to which the fishery has unacceptable impacts on important aspects of the ecosystems, habitats or associated species where it operates.

Elements considered in scoring include the following, with reference to acceptable limits:

- 1. The effects of the removal of target species biomass on species that depend on it as a food source.
- 2. The effects of the removal of target species biomass on species that it consumes as food.
- 3. The effects of the fishery on the habitat structure, productivity and species diversity in fished areas.
- 4. The effects of by-catch, discarded species, including the target species, and bait on trophic structure and dynamics, species diversity, and productivity in fished areas.

- In the major fishing areas, the impacts of fishing on the distributions or abundance of the populations of the main prey and the predators of the target species are within acceptable limits, which have been defined.
- In the main habitats, the impacts of fishing on the structure, primary and secondary productivity and species diversity are within acceptable limits, which have been defined.

80% Scoring Guidepost

- No unacceptable impacts of the fishery on ecological systems have been demonstrated.
- Where specific impacts have been studied, the impacts are contained within acceptable limits.
- Research programs are investigating the impacts of the fishery on the main habitats and the main predators and prey of the target species.
- Attempts have been made to identify acceptable limits to change for ecological impacts on key habitats and species.

Indicator 2E: The fishery is conducted in a manner that does not have important impacts on

protected, endangered, or threatened species.

The intent of this performance indicator is to evaluate the extent to which the fishery has important impacts on highly valued icon species, and particularly those identified in National or State legislation and regulations.

Elements considered in scoring include that:

- 1. There is adequate knowledge of the direct interactions of the fishery on protected, threatened and endangered species, such as through by-catch, entrainment, effects on behavior, or physical disruption of seabird colonies and populations.
- 2. There is adequate knowledge of the extent of interruptions, removals, mortalities of protected, threatened or endangered species caused by the fishery.

100% Scoring Guidepost

Research data show that the effects of the fishery or its operation on the populations, distribution and abundance of any
protected, endangered, or threatened species (identified under any State or Commonwealth legislation or regulation) that
occur in the areas where the fishery operates, and adjacent to shore-based installations, are within acceptable limits.

80% Scoring Guidepost

- The occurrences of any protected, endangered, or threatened species (identified under any State or Commonwealth legislation or regulation) in the areas where the fishery operates have been identified.
- Any formally implemented species management or recovery plans do not identify the fishery as a threatening, or potentially threatening, process.

Indicator 2F: The impacts of lost fishing gear or lost consumables such as plastic bait-box bands on target and non-target species are minimal.

The intent of this criterion is to evaluate the extent to which fishing gear and waste materials (such as bait bands, bait boxes, or other consumables) that are lost at sea have an impact on the target or non-target species

Elements considered in scoring include that:

- 1. There is adequate knowledge of the extent of lost fishing gear and its ghost fishing effects on target and non-target species, and any physical habitat damage.
- 2. There is adequate knowledge of the loss of consumable wastes, including bait-box bands, and their effects on target and non-target species, and any physical habitat damage.

100% Scoring Guidepost

• The nature of gear and consumables loss has been measured and assessed across the fishery, and the extent of impacts has been measured and shown to be a negligible threat to habitats, coastal ecosystems or species of concern that may be susceptible (e.g. seabirds, sharks, mammals, turtles, hard corals).

80% Scoring Guidepost

• The extent of gear and consumable loss from the fishery has been estimated in at least one area, and gear or consumable loss from the fishery is not cited as a threatening, or potentially threatening, process in any formally implemented species management or recovery plans.

Indicator 2G: Strategies are employed in the fisheries management system to address and

restrain the impacts of the fishery on the ecosystem

The intent of this criterion is to evaluate the extent to which the fisheries management system includes an appropriate set of strategies designed to restrain and reduce any important impacts that may be detected.

Elements considered in scoring include that:

- 1. Regional ecological objectives for habitats and populations have been developed and promulgated.
- 2. The levels of acceptable change have been developed for a range of habitats and non-target species in the fished areas.
- 3. Monitoring programs designed to assess fishery impacts are operational.
- 4. Fishery management measures are in place to enable adjustment of fishery practices where unacceptable impacts have been identified.

100% Scoring Guidepost

- Regional management objectives and strategies designed to adequately protect ecosystems, habitats and populations from degradation are included as environmental objectives in the fisheries management plan.
- Fisheries operations use the objectives and limits for environmental change to guide operational practices.
- Variables related to ecosystems, habitats and populations of non-target species are included within the fisheries monitoring
 program and in the management plan, and these data are used to guide and revise fishery management practices.

- The fisheries management plan includes management objectives and strategies for key aspects of the ecosystem, including habitats, protected species, and species diversity where potential impacts of the fishery have been identified.
- The fisheries management plan has the appropriate arrangements to adjust fishery operations if adverse ecological impacts of the fishery are detected.

Principle 3

Indicator 3A: A comprehensive and effective management plan or management system is in place

The intent of this performance indicator is to evaluate the extent to which there is a comprehensive and effective management plan or management system in place for the fishery.

Elements considered in scoring include that the management plan or system includes:

- 1. Clear short and long term sustainability (resource and environment) objectives.
- 2. Operational criteria and performance measures related to the objectives.
- 3. Strategies and procedures for implementing the plan.
- 4. Processes for monitoring and performance evaluation.
- 5. Guidelines for acting on evaluations.
- 6. An effective consultative process.
- 7. Consideration of legal and customary rights of indigenous or subsistence fishers.
- 8. Dispute resolution mechanisms for processes arising within the plan.
- 9. A process for periodical external review of the management plan or system.

100% Scoring Guidepost

- The management system includes all of the above elements.
- An evaluation has been undertaken which shows that the management system fully complies with relevant international and national agreements.
- The management system includes comprehensive strategies and procedures for implementation.
- Performance evaluation is frequent and thorough.
- The consultative process is transparent and includes all substantial stakeholders.
- Management plans and/or arrangements are subject to independent external audit.
- There are no subsidies supporting fishing operations.

80% Scoring Guidepost

- The management system comprises at least elements 1 to 5 of criterion 3A.
- Fishing appears to comply with international and national agreements (including agreed catch limits).
- A set of general arrangements operate to see that the management plan is implemented.
- The consultative process is inclusive.
- Management plans and arrangements are open to public scrutiny.
- There are no unusual or unique subsidies supporting fishing operations.

Indicator 3B: There is a harvest strategy to achieve the management objectives for the

target species

The intent of this performance indicator is to evaluate the extent to which there is an effective harvest strategy in place for management of the target species.

Elements considered in scoring include that:

- 1. The harvest strategy should include monitoring of the resource and fishery, a periodic assessment of the status of the resource, and the way in which harvest levels will be altered on the basis of assessments.
- 2. Actions should be taken in a timely and adaptive fashion on the basis of the best available information, using a precautionary approach to deal with scientific uncertainty.
- 3. Harvest strategies should maintain stocks at productive levels (specified by appropriate target and limit reference points), and should provide for the recovery of depleted stocks to specified levels within specified time frames.
- 4. Harvest strategies should be evaluated using robust assessment methods that consider the use of a range of management tools.
- 5. Stock assessments and harvest strategy evaluation should be undertaken in an open process and the methods and results made available in published reports.
- 6. There should be periodic external review of stock assessments and harvest strategy evaluations.

- Stock assessments are published documents subject to periodical external review.
- Harvest strategies are explicit and have been formally evaluated and externally reviewed.

- Stock assessments are written documents available for public examination.
- Harvest strategies are implicit but are designed to achieve a sustainable resource.

Indicator 3C: There is a strategy to manage the environmental impacts of fishing

The intent of this performance indicator is to evaluate the extent to which there is an effective strategy in place to manage the environmental impacts of fishing.

Elements considered in scoring include that:

- 1. Strategies have been put in place to address significant environmental impacts of fishing.
- 2. The effectiveness of such strategies has been assessed.

100% Scoring Guidepost

• Effective strategies are in place to address and reduce significant impacts; such strategies have been demonstrated to be feasible and achievable in this or other similar fisheries and ecosystems.

80% Scoring Guidepost

- Potential environmental impacts of fishing have been considered.
- Strategies are implemented or being developed to address publicly identified concerns about environmental impacts of fishing.

Indicator 3D: There is a research and monitoring strategy designed to support the

management plan for the fishery

The intent of this performance indicator is to evaluate the extent to which there is an effective research and monitoring strategy that supports and is closely linked to the overall management of the fishery.

Elements considered in scoring include that:

- 1. There is a strategic plan for monitoring and research linked to the management plan.
- 2. The plan balances consideration of needs across resource and environmental management objectives.

100% Scoring Guidepost

- The plan is comprehensive and balanced.
- There is wide stakeholder input in development of the plan, and the plan is subject to external review.

80% Scoring Guidepost

- The plan puts greatest emphasis on resource sustainability but addresses high priority environmental concerns.
- The plan is a publicly available document.
- The fraction of the value of the fishery spent on research and monitoring is appropriate.

Indicator 3 E: There are compliance and enforcement strategies designed to support the

management plan for the fishery

The intent of this performance indicator is to evaluate the extent to which there is an effective compliance and monitoring strategy in place to support the management of the fishery.

Elements considered in scoring include that:

- 1. There is an effective process for development and implementation of cost-effective compliance and enforcement strategies.
- 2. The effectiveness of such strategies is measured.
- 3. There are periodical external reviews of strategies.

100% Scoring Guidepost

- There is a very high level of compliance with agreed management arrangements and measures.
- Fishers are significantly involved in the collection of catch, discard and other information.
- Strategies are judged to be effective by external reviewers.

- There is an adequate level of compliance with agreed management arrangements and measures.
- Fishers are involved in the collection of catch and other information.

Indicator 3F: Fishing operations are carried out in a manner that minimizes unintended

impacts on the resource and the ecosystem

The intent of this performance indicator is to evaluate the extent to which fishing operations are carried out in a manner that minimizes unintended impacts on the resource and ecosystem.

- 1. The fishery does not use destructive fishing practices such as use of explosives or poisons.
- 2. There are strategies and measures to minimize inadvertent impacts of fishing on target species. These could include altering the selectivity of gear, and improving handling and discarding practices.
- There are strategies and measures to minimize inadvertent impacts of fishing on ecological systems. These could include altering the deployment of gear, use of by-catch exclusion devices, and minimizing operational wastes such as loss of fishing gear, oil spills and disposal of bait box bands.

100% Scoring Guidepost

- There is an effective code of conduct for responsible fishing that is fully supported by fishers.
- Fishing gear and operations are designed for minimum impact on non-target species and the ecosystem.
- Release procedures for target species ensure maximum survival at release.
- There is no operational waste from fishing operations.

- There is an education and awareness program for fishers concerning responsible fishing practices.
- Fishing is conducted in a way that attempts to reduce impacts on non-target species and the ecosystem.
- Release procedures for target species attempt to minimize mortality at release.
- Operational waste is at low levels, and plans to minimize it are supported by fishers.