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Final Revisions to the MSC Default Assessment Tree

In the Assessment of

the Set Net Chum Salmon Fishery, Kitami prefecture of Hokkaido, Japan

This is a summary of revisions to the MSC Certification Methodology (CR v1.2) for use in the full assessment of the set net chum salmon fishery in the Kitami prefecture of Japan. The default assessment tree is a standardized framework for fishery assessment. Subsequent review and discussions among the MSC Technical Advisory Board (TAB) and salmon certification teams highlighted the need to clarify the application of the default assessment tree to salmon assessments to consider the unique aspects of salmon fisheries. Specific treatment of enhancement by hatcheries and a definition of target and non-target salmon stocks has been made.

Set nets are semi-permanent near shore structures that corral salmon that are returning to natal streams in the Kitami prefecture. Chum salmon originating from other areas outside the Kitami region may utilize ocean habitat near the Kitami prefecture. This assessment, therefore, recognizes that chum salmon originating in other regions may be intercepted in the Kitami commercial set net fishery and if the assessment is successful, these fish would be eligible to carry the MSC blue eco-label. The assessment team will consider target stocks to be those chum salmon that are harvested by the fishery adjacent to Kitami prefecture rivers (unit of certification) regardless of origin. This consideration is similar to other MSC assessments using similar gear and the modified default assessment tree in the Pacific (Aniva Bay-NE Sakhalin and Ozernaya River).

Enhancement activities are a key aspect of the chum salmon fishery in Kitami prefecture, Japan, as they are in many commercial salmon systems. The MSC has provided directives for scope application for enhanced fisheries in CR v1.2 part C section 27.4.12. It has been determined that the Kitami chum fishery meets the scope requirements of the MSC which emphasizes that the assessment shall be conducted on the natural reproductive components or "wild" components of the stock. We understand this to mean chum salmon that do not originate from a hatchery. Additional Performance Indicators have been added to Principle 1 to address enhancement activities which are organized by outcome, management, and information components to match the organization of other Principle 1 indicators. Principle 2 and 3 indicators and guideposts were also revised to clarify applicability of enhancement. In addition, indicators and guideposts in P1 were clarified to specifically identify the wild stocks as the focus of the assessment (as distinguished from enhanced stocks).

Pacific salmon are fished as stock complexes (multiple stock and sub-stocks in different environments). According to the MSC (CR v1.2), a practical management approach may require that the target levels of biomass for some individual stocks within the complex be different from those usually applied to a single species (i.e. a level consistent with B_{MSY} or some surrogate or measure with similar intent). In these situations the overall target reference points should aim to be consistent with the intent of the performance indicator, and maintain the high productivity of the stock complex.

Stock complexes of salmon typically include a mixture of local and non-local stocks of the same species. The unit of certification will include the fishery in the Kitami prefecture of Japan. The intent is that all chum

salmon stocks harvested in the fishery will be certified to carry the logo as long as all performance indicators are met and non-target stocks meet the requirements of inseparable and practicably inseparable stocks.

For the purposes of this assessment, chum salmon that originate in the Kitami prefecture are considered to be target stocks. This includes local salmon stocks that are produced naturally or in hatcheries. This assessment will use the modifications from the Annette Island Salmon Reserve MSC assessment developed by SCS with some additional modifications prepared by the MRAG Assessment Team used in the NE Sakhalin Island-Aniva Bay and Ozernaya River assessments for existing performance indicators of the default assessment tree as contained in the MSC Certification Methodology v1.2. Some clarification of additional language found in the new performance indicators are found in the rationale for the change to indicators. Terms that are underlined in the non-modified default assessment tree are underlined here and additional guidance and definitions for these terms may be found in the MSC Guidance to Certification Requirements (v1.1). Indicators and elements that have been modified from the original default assessment tree can be found in red text. In order to fully capture the effect of enhancement, three additional indicators have been added; 1.3.1, 1.3.2 and 1.3.3.

1.1.1 Stock Status

The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing.

SG 60	SG 80	SG 100
It is likely that the wild stock is above the point where recruitment would be impaired, or, it is likely that fishery impacts are so small as to have no significant effect on wild stock status.	It is highly likely that the wild stock is above the point where recruitment would be impaired, or, it is highly likely that fishery impacts are so small as to have no significant effect on the wild stock status. The wild stock is at or fluctuating around its target reference point.	There is a high degree of certainty that the wild stock is above the point where recruitment would be impaired, or, it is with a high degree of certainty that the fishery impacts are so small as to have no significant effect on the wild stock status. There is a high degree of certainty that the wild stock has been fluctuating around its target reference point, or has been above its target reference point, over recent years.

Rationale for modification of Indicator 1.1.1:

In recognition of broadly including any salmon stock component harvested in the fishery, this indicator was modified to clarify that high productivity and low probability of recruitment overfishing of stocks can occur in two circumstances. Where fishery harvest rates are significant the scoring guideposts can be met when the subject fishery, in concert with other fisheries affecting the stock, adequately protects spawning escapement. Where

fishery harvest rates are very low, status of the stock is independent of the fishery. Most mixed stock salmon fisheries and some more terminal salmon fisheries harvest a complex of local and non-local stocks. Often non-local stocks are harvested at a very low exploitation rate – this rate might be so small as to have no measurable effect on status or recruitment of the stock. Very low "*de minimis"* fishing rates are often identified as limit reference points for salmon stocks intercepted at very low rates in mixed stock fisheries. Status of these stocks typically depends on conditions at the point of origin and fisheries targeting these stocks in closer proximity to the point of origin. For the purposes of this assessment, stock status is evaluated based on estimates of the significance of fishery harvests on the stock as identified in 1.2.3. This is not to suggest that the status of the stock can be ignored. Rather it defines a different standard for assessing the status of stocks that are harvested at negligible rates, and highlights the possibility that a fishery may pass this indicator under certain conditions even when a non-local stock is below its escapement goals. In this case, specific salmon fisheries in other areas with significant exploitation of the stock in question could fail a specific guidepost while other fisheries, where the stock in question is incidentally harvested at a very low rate while targeting other more-abundance local stocks, could pass the same guidepost. An appropriate definition of stocks as identified in 1.2.4 is obviously essential to the assessment of this indicator.

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1.1.2 Reference Points		
Limit and target reference points or operational equivalents are appropriate for the wild production components of the stock.		
SG 60	**SG 80**	**SG 100**
Generic limit and target reference points are based on justifiable and reasonable practice appropriate for the species category. Where the wild sock is a management unit comprised of more than one subcomponent, it is likely that the target and limit reference points are consistent with maintaining the inherent diversity and reproductive capacity of each stock subcomponent.	Reference points are appropriate for the wild stock and can be estimated. The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity. The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome. Where the wild sock is a management unit comprised of more than one subcomponent, it is highly likely that the target and limit reference points are consistent with maintaining the inherent diversity and reproductive capacity of each stock subcomponent.	The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity following consideration of relevant precautionary issues. The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome, or a higher level, and takes into account relevant precautionary issues such as the ecological role of the stock with a high degree of certainty. Where the wild sock is a management unit comprised of more than one subcomponent, there is a high degree of certainty that the target and limit reference points are consistent with maintaining the inherent diversity and reproductive capacity of each stock subcomponent.

Rationale for modification of Indicator 1.1.2:

Allowing for the use of operational equivalents to limit and target reference points recognizes the unique characteristics of salmon stock structure and fishery management. These characteristics include a complex spatial metapopulation structure consisting of large numbers of local populations whose relatedness is a function of distance, a broadly overlapping mixture of different stocks in the ocean, and fisheries that are typically focused on annual cohorts of semelparous adults destined to die after spawning. The combination of these characteristics typically provides a high degree of species resilience to annual variability in numbers as long as natural stock diversity and habitats are protected. Target reference points are typically defined for salmon in terms of annual escapement levels or exploitation rates established to produce maximum or optimum sustained yield. Limit Reference Points are generally identified only for depleted salmon stocks and are sometimes based on escapement levels below which the ability of the stock to sustain itself is uncertain or jeopardized. Operational equivalents of LRPs are also widely utilized for salmon based on maximum fishery harvest or impact rates intended to avoid significant effects on escapement or production. Guideposts were also added to explicitly

recognize the stock structure typical of salmon species. These guideposts highlight the need to protect the full range of diversity and reproductive capacity among and within stock subcomponents. Subcomponents are considered the same species that have different characteristics. For example, chum salmon in the same river system but with an earlier or later run time or subcomponents can also be the same species in a different river system with the same run time. This diversity is regarded as an essential feature in the long term sustainability of salmon species.

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1.1.3 Stock Rebuilding		
Where the wild stock or wild stock components are depleted, there is evidence of stock rebuilding.		
SG 60	**SG 80**	**SG 100**
Where stocks are depleted rebuilding strategies which have a reasonable expectation of success are in place. The rebuilding strategy should prohibit targeting depleted stocks. Monitoring is in place to determine whether they are effective in rebuilding the stock within a specified timeframe.	Where stocks are depleted rebuilding strategies are in place. There is evidence that they are rebuilding stocks, or it is highly likely based on simulation modeling or previous performance that they will be able to rebuild the stock within a specified timeframe.	Where stocks are depleted, strategies are demonstrated to be rebuilding stocks continuously and there is strong evidence that rebuilding will be complete within the shortest practicable timeframe.

Rationale for modification of Indicator 1.1.3:

This indicator was revised to clarify its application to the wild stock or stock components (as opposed to hatchery/enhanced stocks or components) and to ensure that depleted stocks are not targeted for in the fishery.

1.2.1 Harvest Strategy		
There is a robust and precautionary harvest strategy in place.		
SG 60	**SG 80**	**SG 100**
The harvest strategy is expected to achieve wild stock management objectives reflected in the target and limit reference points. The harvest strategy is likely to work based on prior experience or plausible argument. Monitoring is in place that is expected to determine whether the harvest strategy is working.	The harvest strategy is responsive to the state of the wild stock and the elements of the harvest strategy work together towards achieving management objectives reflected in the target and limit reference points. The harvest strategy may not have been fully tested but monitoring is in place and evidence exists that it is achieving its objectives.	The harvest strategy is responsive to the state of the wild stock and is designed to achieve stock management objectives reflected in the target and limit reference points. The performance of the harvest strategy has been fully evaluated and evidence exists to show that it is achieving its objectives including being clearly able to maintain stocks at target levels. The harvest strategy is periodically reviewed and improved as necessary.

1.2.2 Harvest Control Rules & Tools		
There are well defined and effective harvest control rules in place.		
SG 60	**SG 80**	**SG 100**
Generally understood harvest control rules are in place that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached. There is some evidence that tools used to implement harvest control rules are appropriate and effective in controlling exploitation.	Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached. The selection of the harvest control rules takes into account the main uncertainties. Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.	The design of the harvest control rules take into account a wide range of uncertainties. Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the harvest control rules.

1.2.3 Information and Monitoring		
Relevant information is collected to support the harvest strategy.		
SG 60	**SG 80**	**SG 100**
Some relevant information related to stock structure, stock productivity and fleet composition is available to support the harvest strategy. Stock abundance and fishery removals are monitored and at least one indicator is available and monitored with sufficient frequency to support the harvest control rule. Some relevant information is available on the significance of fishery harvests on various stock components	Sufficient relevant information related to stock structure, target stock productivity, fleet composition and other data is available to support the harvest strategy. Stock abundance and fishery removals are regularly monitored at a level of accuracy and coverage consistent with the harvest control rule, and one or more indicators are available and monitored with sufficient frequency to support the harvest control rule. There is good information on all other fishery removals from the stock. Information is sufficient to estimate the significance of fishery harvests on stock components.	A comprehensive range of information (on stock structure, stock productivity, fleet composition, stock abundance, fishery removals and other information such as environmental information), including some that may not be directly relevant to the current harvest strategy, is available. All information required by the harvest control rule is monitored with high frequency and a high degree of certainty, and there is a good understanding of the inherent uncertainties in the information [data] and the robustness of assessment and management to this uncertainty. A comprehensive range of information is available to estimate the significance of fishery harvests on stock components.

Rationale for modification of Indicator 1.2.3:

An additional guidepost was added to clarify the need for relevant information on stock components. Separate guideposts were identified in order to distinguish the nature of the information needed for different stock components. Information relevant to the significant stocks in the fishery includes stock structure, productivity, abundance and harvest. Information relevant to incidental stocks includes the need to estimate the significance of the fishery to the stock component. Fishing rates on some stocks originating outside the management area are typically less than those on more local stocks. In most cases, status of the stocks is primarily determined by fishing in the management area of origination. The essential questions for each salmon stocks is whether it is known what stock components are being intercepted by the fishery in your management area, has the harvest rate of your fishery on each stock been estimated, and has it been determined whether the harvest rate is significant to the status of the non-target stock? Significance might be determined based on harvest levels or rates relative to those for the same stock in its management area of origin, harvest levels or rates relative to management reference points established for the stock components, or estimates of the relative productivities of different stock subcomponents. As discussed under PI 1.1.1, limited harvest of some stock subcomponents may be acceptable if harvest or impact rates are so low as to marginally affect escapement and production, or

rates fall below fishery-specific limits even where limit reference points for the stock are not met in other fisheries.

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1.2.4 Assessment of Stock Status		
There is an adequate assessment of the stock status.		
SG 60	**SG 80**	**SG 100**
The majority of stocks are defined with a clear rationale for conservation, fishery management and stock assessment requirements. Where indicator stocks are used as the primary source of information for making management decisions on larger groups of stocks in a region, there is some scientific basis for the indicator stocks. The assessment estimates stock status relative to reference points. The major sources of uncertainty are identified.	The stocks are well-defined and include details on the major subcomponent stocks with a clear rationale for conservation, fishery management and stock assessment requirements. Where indicator stocks are used as the primary source of information for making management decisions on larger groups of stocks in a region, there is some evidence of coherence between the status of the indicator stocks and the status of the other stocks they represent within the management unit to the extent that a high likelihood exists of tracking stock status for lower productivity of stocks (i.e., those a higher conservation risk) The assessment is appropriate for the stock and for the harvest control rule, and is evaluating stock status relative to reference points. The assessment takes uncertainty into account. The stock assessment is subject to peer review.	There is an unambiguous description of each stock, including its geographic location, run timing, and subcomponent stocks with a clear rationale for conservation, fishery management and stock assessment requirements. Where indicator stocks are used as the primary source of information for making management decisions on larger groups of stocks in a region, the status of the indicator stocks is well correlated with the stocks that are most at risk from a conservation point of view, not just correlated with the most productive stocks in the management unit. The assessment is appropriate for the stock and for the harvest control rule and takes into account the major features relevant to the biology of the species and the nature of the fishery. The assessment takes into account uncertainty and is evaluating stock status relative to reference points in a probabilistic way. The assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored. The assessment has been internally and externally peer reviewed.

Rationale for modification of Indicator 1.2.4:

This indicator is focused on stock status and considers the impact of all fisheries affecting this stock in the evaluation of the target fishery. Assessments of some subcomponent stocks may be held to a different standard based on direct status assessments or an assessment of the significance of the fishery impact on that stock.

Additional guideposts were identified to recognize the importance of stock definitions in salmon stock assessments.

1.3.1 Enhancement Outcomes		
Enhancement activities do not negatively impact wild stocks or substitute for a stock rebuilding strategy.		
SG 60	**SG 80**	**SG 100**
It is likely that the enhancement activities do not have significant negative impacts on the local adaptation, reproductive performance and productivity or diversity of wild stocks based on reasonable estimates of likely proportions of hatchery-origin fish in the natural spawning escapement. It is likely that hatchery-origin spawners occur in a small proportion of the natural spawning populations/locations. It is likely that hatchery-origin spawners represent a small proportion of the total natural spawning escapement. Enhancement activities are not routinely used as a stock rebuilding strategy but may be temporarily in place as a conservation measure to preserve or restore wild diversity threatened by human or natural impacts.	It is highly likely that the enhancement activities do not have significant negative impacts on the local adaptation, reproductive performance and productivity or diversity of wild stocks, based on appropriate levels of marking and monitoring to reliably estimate proportions of hatchery-origin fish in the natural spawning escapement. It is highly likely that hatchery-origin spawners occur in a very small proportion of the natural spawning populations/locations. It is highly likely that hatchery-origin spawners represent a very small proportion of the total natural spawning escapement. Enhancement activities are very seldom used as a stock rebuilding strategy.	There is a high degree of certainty that the enhancement activities do not have significant negative impacts on the local adaptation, reproductive performance and productivity or diversity of wild stocks based on appropriate levels of marking and monitoring to reliably estimate proportions of hatchery origin fish in the natural spawning escapement. There are no salmon enhancement programs within expected straying distances of the natural spawning areas, which periodic monitoring has verified. Enhancement activities are not used as a stock rebuilding strategy.

Rationale for addition of new Performance Indicator 1.3.1:

This indicator was added to address the potential for negative effects of enhancement on the genetic diversity and reproductive capacity of the wild salmon stocks consistent with the direction identified in MSC guidance on scope criteria for enhanced fisheries (CR v1.2 Part C section 27.4.12).

This indicator addresses outcomes of enhancement impacts on wild stocks targeted by the fishery. Management and information is addressed in separate indicators (1.3.2 and 1.3.3) which are consistent with the organization

of other indicators under principle one in the CR. Specific guideposts in this indicator are based on those identified in other comparable P1 indicators regarding stock status (1.1.1) and stock rebuilding (1.1.3). Clarification for the terms underlined in the scoring guideposts has been added as guidance.

Guideposts will be assessed based on potentially damaging enhancement effects including outbreeding depression due to translocation of dissimilar brood stock into locally-adapted populations; inbreeding depression or loss of native genetic diversity due to directed or inadvertent hatchery selection or domestication; mining of wild fish for hatchery broodstock; competition or predation by hatchery fish on wild fish; and reduced fish health due to increased incidence of disease in hatchery fish. These risks are a function of adult broodstock collection sources, hatchery mating, incubation and rearing practices, juvenile release numbers and sites, and straying of returning adults. Indicative assessment attributes may include the minimal or limited spawning interaction with wild fish by hatchery fish consistent with the magnitude of divergence between hatchery and wild stock units, and minimal competition or predation interactions between hatchery and wild fish. These include potential negative ecological impacts on the growth and survival of other salmon species (e.g. Asian pink vs. Bristol Bay sockeye interactions on the high seas).

'Natural spawning populations/locations' are interpreted to mean those wild sub-populations and spawning areas that do not have a hatchery facility in the localized vicinity or where significant natural spawning is demonstrated to take place. A 'small proportion' is interpreted to mean less than 20%. A 'very small proportion' is interpreted to mean less than 5% for populations/locations without an integrated broodstock program and less than 10% for populations/locations with an integrated broodstock program.

The differentiation between the SG60 and SG80 for scoring issues 2 and 3 is both the likely-hood and the level of acceptable hatchery-origin chum salmon in the natural spawning populations/locations and the spawning escapement.

Guideposts also recognize problems associated with the use of enhancement as a rebuilding strategy for depleted wild stocks, except in unique circumstances. Populations subsidized by large numbers of hatchery-produced salmon may not be sustainable in the absence of continuing subsidy. Hatchery-produced fish have been widely observed to mask the true status and problems of wild stocks. Lower fitness and productivity of the hatchery fish can also erode wild stock fitness and productivity.

'Routinely' in this case is interpreted as built into a long-term management strategy or utilized in lieu of wild salmon population management. 'Very seldom' in this case is interpreted as used only for short term emergency cases, but does not form part of a long term management or rebuilding strategy. This is in compliance with the scope criteria for "Hatch and Catch" fisheries as defined in Table C1, A4 requirement (CR 1.2).

This guidepost might also have been considered under 1.1.3 except that all enhancement considerations are intended to be treated under 1.3.

1.3.2 Enhancement Management		
Effective enhancement and fishery strategies are in place to address effects of enhancement activities on wild stock status.		
SG 60	**SG 80**	**SG 100**
Practices and protocols are in place and considered likely to protect wild stocks from significant detrimental impacts of enhancement, based on plausible argument.	There is a partial strategy in place and some objective basis for confidence that the partial strategy will protect wild stocks from significant detrimental impacts of enhancement, based on evidence that the strategy is effectively achieving the outcome metrics used to define these minimum impacts (e.g., related to verifying and achieving acceptable proportions of hatchery-origin fish in the natural spawning escapement.)	There is a comprehensive strategy in place and clear evidence for successful protection of wild stocks from significant detrimental impacts of enhancement.

Rationale for addition of new Performance Indicator 1.3.2:

This indicator was added to emphasize the need for management to address the potential for negative effects of enhancement on the genetic diversity and reproductive capacity of the wild salmon stocks consistent with the direction identified in MSC guidance on scope criteria for enhanced fisheries (CR v1.2 Part C section 27.4.12). Guideposts are based on the existence of strategies for the protection of wild stocks and the likelihood of their effectiveness.

Guideposts address the same potentially damaging enhancement effects identified under 1.3.1. This guidepost captures the need for effective enhancement management measures consistent with the MSC Principles and Criteria.

1.3.3 Enhancement Information		
Relevant information is collected and assessments are adequate to determine the effect of enhancement activities on wild stock status.		
SG 60	**SG 80**	**SG 100**
Some relevant information is available on the contribution of enhanced fish to the harvest and wild escapement of the stock. The effect of enhancement activities on wild stock status, productivity and diversity are taken into account.	Sufficient relevant information is available on the contribution of enhanced fish to the harvest and wild escapement of the stock. The assessment includes estimates of the impacts of enhancement activities on wild stock status, productivity and diversity.	A comprehensive range of relevant information is available on the contribution of enhanced fish to the harvest and wild escapement of the stock. The assessment is appropriate and takes into account the major features relevant to the biology of the species and the effects of any enhancement activities on the wild stock status, productivity and diversity.

Rationale for addition of new Performance Indicator1.3.3:

This indicator was added to address information needed to address the potential for negative effects of enhancement on the genetic diversity and reproductive capacity of the wild salmon stocks consistent with the direction identified in MSC guidance on scope criteria for enhanced fisheries (CR v1.2 Part C section 27.4.12). Guideposts address the same potentially damaging enhancement effects identified under 1.3.1. Specific guideposts in this indicator are based on those identified in other comparable P1 indicators regarding collection of relevant information (1.2.3) and assessment adequacy (1.2.4). Marking and monitoring programs will be particularly relevant to evaluations of sufficiency for this indicator.

2.1.1 Retained Species - Outcome

The fishery does not pose a risk of serious or irreversible harm to the retained species and does not hinder recovery of depleted retained species.

SG 60	SG 80	SG 100
Main retained species are likely to be within biologically based limits or if outside the limits there are measures in place that are expected to ensure that the fishery does not hinder recovery and rebuilding of the depleted species. If the status is poorly known there are measures or practices in place that are expected to result in the fishery not causing the retained species to be outside biologically based limits or hindering recovery.	Main retained species are highly likely to be within biologically based limits, or if outside the limits there is a partial strategy of demonstrably effective management measures in place such that the fishery does not hinder recovery and rebuilding.	There is a high degree of certainty that retained species are within biologically based limits. Target reference points are defined and retained species are at or fluctuating around their target reference points.

2.1.2 Retained Species – Management

There is a strategy in place for managing retained species that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to retained species.

SG 60	SG 80	SG 100
There are measures in place, if necessary, that are expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding. The measures are considered likely to work, based on plausible argument (eg, general experience, theory or comparison with similar fisheries/species).	There is a partial strategy in place, if necessary that is expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding. There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or species involved. There is some evidence that the partial strategy is being implemented successfully.	There is a strategy in place for managing retained species. The strategy is mainly based on information directly about the fishery and/or species involved, and testing supports high confidence that the strategy will work. There is clear evidence that the strategy is being implemented successfully, and intended changes are occurring. There is some evidence that the strategy is achieving its overall objective.

2.1.3 Retained Species – Information

Information on the nature and extent of retained species is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage retained species.

SG 60	SG 80	SG 100
Qualitative information is available on the amount of main retained species taken by the fishery. Information is adequate to qualitatively assess outcome status with respect to biologically based limits. Information is adequate to support measures to manage main retained species.	Qualitative information and some quantitative information are available on the amount of main retained species taken by the fishery. Information is sufficient to estimate outcome status with respect to biologically based limits. Information is adequate to support a partial strategy to manage main retained species. Sufficient data continue to be collected to detect any increase in risk level (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the strategy).	Accurate and verifiable information is available on the catch of all retained species and the consequences for the status of affected populations. Information is sufficient to quantitatively estimate outcome status with a high degree of certainty. Information is adequate to support a comprehensive strategy to manage retained species, and evaluate with a high degree of certainty whether the strategy is achieving its objective. Monitoring of retained species is conducted in sufficient detail to assess ongoing mortalities to all retained species.

2.2.1 Bycatch Species – Outcome		
The fishery and its enhancement activities does not pose a risk of serious or irreversible harm to the bycatch species or species groups and does not hinder recovery of depleted bycatch species or species groups.		
SG 60	**SG 80**	**SG 100**
Main bycatch species are likely to be within biologically based limits, or if outside such limits there are mitigation measures in place that are expected to ensure that the fishery does not hinder recovery and rebuilding. If the status is poorly known there are measures or practices in place that are expected result in the fishery not causing the bycatch species to be biologically based limits or hindering recovery.	Main bycatch species are highly likely to be within biologically based limits or if outside such limits there is a partial strategy of demonstrably effective mitigation measures in place such that the fishery does not hinder recovery and rebuilding.	There is a high degree of certainty that bycatch species are within biologically based limits.

Rationale for modification of Indicator 2.2.1:

The definition of this Performance Indicator was broadened to ensure that the team considers the possibility of harm to bycatch species due to the enhancement activities.

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2.2.2 Bycatch species - Management

There is a strategy in place for managing bycatch that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to bycatch populations.

SG 60	SG 80	SG 100
There are measures in place, if necessary, which are expected to maintain main bycatch species at levels which are highly likely to be within biologically based limits or to ensure that the fishery does not hinder their recovery. The measures are considered likely to work, based on plausible argument (e.g general experience, theory or comparison with similar fisheries/species).	There is a partial strategy in place, if necessary, for managing bycatch that is expected to maintain main bycatch species at levels which are highly likely to be within biologically based limits or to ensure that the fishery does not hinder their recovery. There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or the species involved. There is some evidence that the partial strategy is being implemented successfully.	There is a strategy in place for managing and minimising bycatch. The strategy is mainly based on information directly about the fishery and/or species involved, and testing supports high confidence that the strategy will work. There is clear evidence that the strategy is being implemented successfully, and intended changes are occurring. There is some evidence that the strategy is achieving its objective.

2.2.3 Bycatch Species - Information

Information on the nature and amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch.

SG 60	SG 80	SG 100
Qualitative information is available on the amount of main bycatch species affected by the fishery. Information is adequate to broadly understand outcome status with respect to biologically based	Qualitative information and some quantitative information are available on the amount of main bycatch species affected by the fishery. Information is sufficient to estimate outcome status with respect to biologically based limits. Information is adequate to support a partial strategy to manage main bycatch species.	Accurate and verifiable information is available on the amount of all bycatch and the consequences for the status of affected populations. Information is sufficient to quantitatively estimate outcome status with respect to biologically based limits with a high degree of certainty. Information is adequate to support a comprehensive strategy to manage

limits. Information is adequate to support measures to manage bycatch.	Sufficient data continue to be collected to detect any increase in risk to main bycatch species (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the strategy).	bycatch, and evaluate with a high degree of certainty whether a strategy is achieving its objective. Monitoring of bycatch data is conducted in sufficient detail to assess ongoing mortalities to all bycatch species.

2.3.1 ETP Species - Outcome

The fishery meets national and international requirements for protection of ETP species.

The fishery and its enhancement activities do not pose a risk of serious or irreversible harm to ETP species and does not hinder recovery of ETP species.

SG 60	SG 80	SG 100
Known effects of the fishery are likely to be within limits of national and international requirements for protection of ETP species. Known direct effects of the fishery including its enhancement activities are unlikely to create unacceptable impacts to ETP species.	The effects of the fishery are known and are highly likely to be within limits of national and international requirements for protection of ETP species. Direct effects of the fishery including its enhancement activities are highly unlikely to create unacceptable impacts to ETP species. Indirect effects have been considered and are thought to be unlikely to create unacceptable impacts.	There is a high degree of certainty that the effects of the fishery are within limits of national and international requirements for protection of ETP species. There is a high degree of confidence that there are no significant detrimental effects (direct and indirect) of the fishery including its enhancement activities on ETP species.

Rationale for modification of Indicator 2.3.1, 2.3.2 and 2.3.3:

The assessment team members felt the need to emphasis that the impact of the enhancement operation as a whole will be reviewed for potential effects on ETP (potential water diversion, effluent, etc.).

2.3.2 ETP Species - Management

The fishery has in place precautionary management strategies designed to:
- meet national and international requirements;
- ensure the fishery does not pose a risk of serious or irreversible harm to ETP species;
- ensure the fishery does not hinder recovery of ETP species; and
- minimise mortality of ETP species.

SG 60	SG 80	SG 100
There are measures in place that minimise mortality due to the fishery and its enhancement activities, and are expected to be highly likely to achieve national and international requirements for the protection of ETP species. The measures are considered likely to work, based on plausible argument (eg general experience, theory or comparison with similar fisheries/species).	There is a strategy in place for managing the impact due to the fishery and its enhancement activities on ETP species, including measures to minimize mortality that is designed to be highly likely to achieve national and international requirements for the protection of ETP species. There is an objective basis for confidence that the strategy will work, based on some information directly about the fishery and/or the species involved. There is evidence that the strategy is being implemented successfully.	There is a comprehensive strategy in place for managing the impact due to fishery and enhancement activities on ETP species, including measures to minimise mortality that is designed to achieve above national and international requirements for the protection of ETP species. The strategy is mainly based on information directly about the fishery and/or species involved, and a quantitative analysis supports high confidence that the strategy will work. There is clear evidence that the strategy is being implemented successfully, and intended changes are occurring. There is evidence that the strategy is achieving its objective.

2.3.3 ETP Species - Information

Relevant information is collected to support the management of fishery impacts on ETP species, including:
- information for the development of the management strategy;
- information to assess the effectiveness of the management strategy; and
- information to determine the outcome status of ETP species.

SG 60	SG 80	SG 100
Information is adequate to broadly understand the impact of the fishery and its enhancement activities on ETP species. Information is adequate to support measures to manage the impacts on ETP species Information is sufficient to qualitatively estimate	Information is sufficient to determine whether the fishery and enhancement activities may be a threat to protection and recovery of the ETP species, and if so, to measure trends and support a full strategy to manage impacts. Sufficient data are available to allow fishery and enhancement activities related mortality and the impact of fishing to be	Information is sufficient to quantitatively estimate outcome status with a high degree of certainty. Information is adequate to support a comprehensive strategy to manage impacts from both the fishery and enhancement activities, minimize mortality and injury of ETP species, and evaluate with a high degree of certainty whether a strategy is achieving its objectives. Accurate and verifiable information is available on the magnitude of all impacts from the fishery and enhancement activities, mortalities and injuries and

the fishery and enhancement activities related mortality of ETP species.	quantitatively estimated for ETP species.	the consequences for the status of ETP species.

2.4.1 Habitats – Outcome		
The fishery does not cause serious or irreversible harm to habitat structure, considered on a regional or bioregional basis, and function.		
SG 60	**SG 80**	**SG 100**
The fishery is unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm. The enhancement activities are likely to have minimal impact on water quality, access of natural-origin fish to spawning habitat, and quality of stream habitat (such as physical features, spawning and rearing flows and water temperatures).	The fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm. The enhancement activities are highly likely to have minimal impact on water quality, access of natural-origin fish to spawning habitat, and quality of stream habitat (such as physical features, spawning and rearing flows and water temperatures).	There is evidence that the fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm. There is evidence that the enhancement activities are highly likely to have minimal impact on water quality, access of natural origin fish to spawning habitat, and quality of stream habitat (such as physical features, spawning and rearing flows and water temperatures).

Rationale for modification of Indicators 2.4.1, 2.4.2 and 2.4.3:

This performance indicator was revised to ensure that the full scope of hatchery concerns are addressed in regard to impact on ecosystem components.

2.4.2 Habitats – Management

There is a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types.

SG 60	SG 80	SG 100
There are measures in place for managing the impact of the fishery and enhancement activities on habitat types, if necessary, that are expected to achieve the Habitat Outcome 80 level of performance. The measures are considered likely to work, based on plausible argument (e.g general experience, theory or comparison with similar fisheries/habitats).	There is a partial strategy in place for managing the impact of the fishery and enhancement activities on habitat types, if necessary, that is expected to achieve the Habitat Outcome 80 level of performance or above. There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or habitats involved. There is some evidence that the partial strategy is being implemented successfully.	There is a strategy in place for managing the impact of the fishery and enhancement activities on habitat types. The strategy is mainly based on information directly about the fishery and/or habitats involved, and testing supports high confidence that the strategy will work. There is clear evidence that the strategy is being implemented successfully, and intended changes are occurring. There is some evidence that the strategy is achieving its objective.

2.4.3 Habitats – Information

Information is adequate to determine the risk posed to habitat types by the fishery and the effectiveness of the strategy to manage impacts on habitat types.

SG 60	SG 80	SG 100
There is a basic understanding of the types and distribution of main habitats in the area of the fishery. Information is adequate to broadly understand the main impacts of gear use	The nature, distribution and vulnerability of all main habitat types in the fishery area are known at a level of detail relevant to the scale and intensity of the fishery. Sufficient data are available to allow the nature of the impacts of the fishery and enhancement activities on habitat types to be identified and there is reliable information on the spatial extent, timing and location of use of the fishing gear.	The distribution of habitat types is known over their range, with particular attention to the occurrence of vulnerable habitat types. Changes in habitat distributions over time are measured.

and enhancement activities on the main habitats, including spatial extent of interaction.	Sufficient data continue to be collected to detect any increase in risk to habitat (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).	The physical impacts of the gear and enhancement activities on the habitat types have been quantified fully.

2.5.1 Ecosystem – Outcome		
The fishery does not cause serious or irreversible harm to the key elements of ecosystem structure and function.		
SG 60	**SG 80**	**SG 100**
The fishery is unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. Enhancement activities are likely to have minimal negative effect on the productivity of wild salmon and other aquatic populations as a result of predation, competition for resources, and disease transmission.	The fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. Enhancement activities are highly likely to have minimal negative effect on the productivity of wild salmon and other aquatic populations as a result of predation, competition for resources, and disease transmission.	There is evidence that the fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. There is evidence that the enhancement activities are highly likely to have minimal negative effect on the productivity of wild salmon and other aquatic populations as a result of predation, competition for resources, and disease transmission.

Rationale for modification of Indicators 2.5.1, 2.5.2 and 2.5.3:
The performance indicator was revised to ensure that the full scope of enhancement activities are addressed in regard to impact on ecosystem components relating specifically to translocation risks. Note that salmon ecosystem components include effects of competition and predation within and among salmon species in nearshore and high seas ocean waters.

2.5.2 Ecosystem – Management		
There are measures in place to ensure the fishery does not pose a risk of serious or irreversible harm to ecosystem structure and function.		
SG 60	**SG 80**	**SG 100**
There are measures in place, if necessary, that take into account	There is a partial strategy in place, if necessary, that takes into account available information and is expected	There is a strategy that consists of a plan, containing measures to address all main impacts of the fishery on the

potential impacts of the fishery on key elements of the ecosystem. There is an established artificial production strategy in place, if necessary, that is expected to achieve the SG 60 outcome. The measures are considered likely to work, based on plausible argument (eg, general experience, theory or comparison with similar fisheries/ ecosystems).	to restrain impacts of the fishery on the ecosystem so as to achieve the Ecosystem Outcome 80 level of performance. There is a tested and evaluated artificial production strategy, if necessary, with sufficient monitoring in place and evidence is available to reasonably ensure with high likelihood that the strategy is effective in achieving the SG80 outcome. The partial strategy is considered likely to work, based on plausible argument (eg, general experience, theory or comparison with similar fisheries/ ecosystems). There is some evidence that the measures comprising the partial strategy are being implemented successfully	ecosystem and at least some of these measures are in place. The plan and measures are based on well-understood functional relationships between the fishery and the Components and elements of the ecosystem. There is a comprehensive and fully evaluated artificial production strategy, if necessary, to verify with certainty that the SG 100 outcomes are being achieved. This plan provides for development of a full strategy that restrains impacts on the ecosystem to ensure the fishery and its enhancement activities do not cause serious or irreversible harm. The measures are considered likely to work based on prior experience, plausible argument or information directly from the fishery/ecosystems involved. There is evidence that the measures are being implemented successfully.

2.5.3 Ecosystem – Information

There is adequate knowledge of the impacts of the fishery on the ecosystem.

SG 60	SG 80	SG 100
Information is adequate to identify the key elements of the ecosystem (e.g. trophic structure and function, community composition, productivity pattern	Information is adequate to broadly understand the functions of the key elements of the ecosystem. Main impacts of the fishery and enhancement activities on these key ecosystem elements can be inferred from existing information, but may not	Information is adequate to broadly understand the key elements of the ecosystem. Main interactions between the fishery and these ecosystem elements can be inferred from existing information, and have been investigated.

and biodiversity). Main impacts of the fishery and enhancement activities on these key ecosystem elements can be inferred from existing information, but have not been investigated in detail.	have been investigated in detail. The main functions of the Components (i.e. target, Bycatch, Retained and ETP species and Habitats) in the ecosystem are known. Sufficient information is available on the impacts of the fishery and enhancement activities on these Components to allow some of the main consequences for the ecosystem to be inferred. Sufficient data continue to be collected to detect any increase in risk level (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).	The impacts of the fishery and enhancement activities on target, Bycatch, Retained and ETP species and Habitats are identified and the main functions of these Components in the ecosystem are understood. Sufficient information is available on the impacts of the fishery and enhancement activities on the Components and elements to allow the main consequences for the ecosystem to be inferred. Information is sufficient to support the development of strategies to manage ecosystem impacts.

3.1.1 Legal/Customary Framework

The management system exists within an appropriate and effective legal and/or customary framework which ensures that it:
- Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2;
- Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and
- Incorporates an appropriate dispute resolution framework.

SG 60	SG 80	SG 100
The management system is generally consistent with local, national or international laws or standards that are aimed at achieving sustainable fisheries in accordance with MSC Principles 1 and 2. The management system incorporates or is subject by law to a mechanism for the resolution of legal disputes arising within the system.	The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes which is considered to be effective in dealing with most issues and that is appropriate to the context of the fishery. The management system or fishery is attempting to comply in a timely fashion with binding judicial decisions arising from any	The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes that is appropriate to the context of the fishery and has been tested and proven to be effective. The management system or fishery acts proactively to avoid legal disputes or rapidly implements binding judicial decisions arising from legal

Although the management authority or fishery may be subject to continuing court challenges, it is not indicating a disrespect or defiance of the law by repeatedly violating the same law or regulation necessary for the sustainability for the fishery. The management system has a mechanism to generally respect the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.	legal challenges. The management system has a mechanism to observe the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.	challenges. The management system has a mechanism to formally commit to the legal rights created explicitly or established by custom on people dependent on fishing for food and livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.

3.1.2 Consultation, Roles & Responsibilities

The management system has effective consultation processes that are open to interested and affected parties.

The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties.

SG 60	SG 80	SG 100
Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are generally understood. The management system includes consultation processes that obtain relevant information from the main affected parties, including local	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for key areas of responsibility and interaction. The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information obtained.	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for all areas of responsibility and interaction. The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information and explains how it is used or not used. The consultation process provides

knowledge, to inform the management system.	The consultation process provides opportunity for all interested and affected parties to be involved.	opportunity and encouragement for all interested and affected parties to be involved, and facilitates their effective engagement.

3.1.3 Long Term Objectives

The management policy has clear long-term objectives to guide decision-making for wild stock components and the use of enhancement programs that are consistent with MSC Principles and Criteria, and incorporates the precautionary approach.

SG 60	SG 80	SG 100
Long-term objectives to guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach, are implicit within management policy.	Clear long-term objectives that guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach, are explicit within management policy.	Clear long-term objectives that guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach, are explicit within and required by management policy

Rationale for modification in Performance Indicator 3.1.3:
The performance indicator was revised to ensure that enhancement activities are addressed by management objectives.

3.1.4 Incentives for Sustainable Fishing

The management system provides economic and social incentives for sustainable fishing and does not operate with subsidies that contribute to unsustainable fishing.

SG 60	SG 80	SG 100
The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2.	The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and seeks to ensure that negative incentives do not arise.	The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and explicitly considers incentives in a regular review of management policy or procedures to ensure that they do not contribute to unsustainable fishing practices.

3.2.1 Fishery Specific Objectives

The fishery and its enhancement activities have clear, specific objectives designed to achieve the outcomes expressed by MSC's Principles 1 and 2.

SG 60	SG 80	SG 100

Objectives, which are broadly consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are implicit within the fishery's management system and enhancement activities.	Short and long term objectives, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system and enhancement activities.	Well defined and measurable short and long term objectives, which are demonstrably consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system and enhancement activities.

Rationale for modification of Indicator 3.2.1:
To ensure that the full scope of enhancement activities effects is considered by management when defining objectives.

3.2.2 Decision-Making Processes

The fishery-specific and hatchery management systems include effective decision-making processes that result in measures and strategies to achieve the objectives.

SG 60	SG 80	SG 100
There are informal decision-making processes that result in measures and strategies to achieve the fishery-specific and enhancement objectives. Decision-making processes respond to serious issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and	There are established decision-making processes that result in measures and strategies to achieve the fishery-specific and enhancement objectives. Decision-making processes respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions. Decision-making processes use the precautionary approach and are	There are established decision-making processes that result in measures and strategies to achieve the fishery-specific and enhancement objectives. Decision-making processes respond to all issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions. Decision-making processes use the precautionary approach and are based on best available information. Formal reporting to all interested

take some account of the wider implications of decisions.	based on best available information. Explanations are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.	stakeholders describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.

Rationale for modification of Indicator 3.2.2:
This performance indicator was revised to ensure that enhancement activities are explicitly considered and subject to the fishery's decision making process.

3.2.3 Compliance & Enforcement

Monitoring, control and surveillance mechanisms ensure the fishery and hatchery management measures are enforced and complied with.

SG 60	SG 80	SG 100
Monitoring, control and surveillance mechanisms exist, and are implemented in the fishery and enhancement activities under assessment, and there is a reasonable expectation that they are effective. Sanctions to deal with non-compliance exist and there is some evidence that they are applied. Fishers and hatchery operators are generally thought to comply with the management system for the fishery and its enhancement activities under assessment, including, when required, providing information of importance to the effective management of the fishery.	A monitoring, control and surveillance system has been implemented in the fishery and enhancement activities under assessment and has demonstrated an ability to enforce relevant management measures, strategies and/or rules. Sanctions to deal with non-compliance exist, are consistently applied and thought to provide effective deterrence. Some evidence exists to demonstrate fishers and hatchery operators comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery and its enhancement activities. There is no evidence of systematic non-compliance.	A comprehensive monitoring, control and surveillance system has been implemented in the fishery and enhancement activities under assessment and has demonstrated a consistent ability to enforce relevant management measures, strategies and/or rules. Sanctions to deal with non-compliance exist, are consistently applied and demonstrably provide effective deterrence. There is a high degree of confidence that fishers and hatchery operators comply with the management system under assessment, including, providing information of importance to the effective management of the fishery and its enhancement activities.

Rationale for modification of Indicator 3.2.3:

The performance indicator was revised to ensure that the regular monitoring, control, surveillance and enforcement mechanisms that are in place for the fishery also include the hatchery management and enhancement activities.

3.2.4 Research Plan

The fishery and its related enhancement activities have a research plan that addresses the information needs of management.

SG 60	SG 80	SG 100
Research is undertaken, as required, to achieve the objectives consistent with MSC's Principles 1 and 2. Research results are available to interested parties.	A research plan provides the management system with a strategic approach to research and reliable and timely information sufficient to achieve the objectives consistent with MSC's Principles 1 and 2. Research results are disseminated to all interested parties in a timely fashion.	A comprehensive research plan provides the management system with a coherent and strategic approach to research across P1, P2 and P3, and reliable and timely information sufficient to achieve the objectives consistent with MSC's Principles 1 and 2. Research plan and results are disseminated to all interested parties in a timely fashion and are widely and publicly available.

Rationale for modification of Indicator 3.2.4:

To ensure that the fishery's research plans address the role, function and effects of the enhancement activities.

3.2.5 Management & Performance Evaluation

There is a system for monitoring and evaluating the performance of the fishery and hatchery management system against its objectives.
There is effective and timely review of the fishery and hatchery management system.

SG 60	SG 80	SG 100
The fishery and its enhancement programs have in place mechanisms to evaluate some parts of the management system and is subject to occasional internal review.	The fishery and its enhancement programs have in place mechanisms to evaluate key parts of the management system and is subject to regular internal and occasional external review.	The fishery and its enhancement programs have in place mechanisms to evaluate all parts of the management system and is subject to regular internal and external review.

Rationale for modification of Indicator 3.2.5:

This performance indicator was revised to ensure that the fishery's regular mechanism for monitoring and reviewing the performance of the fishery addresses the role, function and effects of the enhancement activities.