

Alaska Salmon Fishery

(Five species: Sockeye salmon, Chum salmon, King salmon, Pink salmon, Coho salmon)

Marine Stewardship Council (MSC) Fishery Certification Certification Body: Intertek Moody Marine

Performance Indicators and Scoring Guideposts- Minor Revisions

On request from the MSC we have made some minor changes to the proposed amended default assessment tree for the Alaska Salmon Second Reassessment that was posted on the MSC website on the 9th December 2011. This are meant to more easily show the relationship of the scoring issues across each Scoring Guidepost

As agreed with the MSC, the changes to the amended default tree do not require an additional 30 day consultation period. As such, the consultation on the revised amended tree is still scheduled to close at 1700 GMT on 8th January 2012.

The revised amended tree modifies or adds the following Performance Indicators from the default assessment tree:

Principle 1 (modified)

- PI 1.1.1- Stock status
- PI 1.1.2- Reference points
- PI 1.1.3- Stock rebuilding
- PI 1.2.1- Harvest strategy
- PI 1.2.3- Information and Monitoring
- PI 1.2.4- Assessment of stock status

Principle 1 (added)

- PI 1.3.1- Enhancement outcomes
- PI 1.3.2- Enhancement management
- PI 1.3.3- Enhancement information

Principle 2 (modified)

- PI 2.2.1- Bycatch species- outcome
- PI 2.3.1- ETP species- outcome
- PI 2.3.2- ETP species- management
- PI 2.3.3- ETP species- information
- PI 2.4.1- Habitats- outcome
- PI 2.4.2- Habitats- management
- PI 2.4.3- Habitats- information
- PI 2.5.1- Ecosystem- outcome
- PI 2.5.2- Ecosystem- management
- PI 2.5.3- Ecosystem- information

Principle 3 (modified)

- PI 3.1.3- Long term objectives
- PI 3.2.1- Fishery specific objectives
- PI 3.2.2- Decision-making processes
- PI 3.2.3- Compliance and enforcement



PI 3.2.4- Research plan

PI 3.2.5- Management and performance evaluation

The amended tree therefore retains the default text and Scoring Guideposts for the following Performance Indicators:

Principle 1 (default)

PI 1.2.2- Harvest control rules and tools

Principle 2 (default)

PI 2.1.1- Retained species- outcome

PI 2.1.2- Retained species- management

PI 2.1.3- Retained species- information

PI 2.2.2- Bycatch species- management

PI 2.2.3- Bycatch species- information

Principle 3 (default)

PI 3.1.1- Legal/customary framework

PI 3.1.2- Consultation, roles and responsibilities

PI 3.1.4- Incentives for sustainable fishing

We welcome any comments on the proposed use of the revised amended default assessment tree in relation to this fishery. Comments should be made as specific as possible to individual Performance Indicators and Scoring Guideposts, and their suitability or not for use in assessing this fishery. If you wish to provide comment at any stage of the assessment process the MSC have provided a template for stakeholders to complete and submit their comments. This can be downloaded from the following link:

 $\underline{http://www.msc.org/documents/scheme-documents/forms-and-templates/msc-template-for-stakeholder-input-intofishery-assessments/view$

All comments should be sent to Intertek Moody Marine using the contact details shown below. Your comments are welcomed, in the first instance, up until 1700 GMT on 8th January 2012.

Should you wish to obtain further information on the MSC, this is available on their web site at http://www.msc.org.

As a certification body, Intertek Moody Marine has dispute resolution procedures available should these prove necessary.

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Appendix 1: Proposed amendments made to the Default Assessment Tree

With the exception of the addition of the scoring issue descriptions and minor changes reflected in the MSC's new Certification Requirements, the following text was proposed and adopted by the assessment team who undertook the Annette Island's Reserve salmon fishery assessment. The original document detailing the amendments made to the default assessment tree by the Annette Island's Reserve assessment team may be downloaded from the MSC website: <a href="http://www.msc.org/track-a-fishery/certified/pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pacific/annette-islands-reserve-salmon/assessment-downloads-1/07.09.2010-air-pa



<u>salmon-assessment-tree-FAM-changes.pdf</u>. The Annette Island's Reserve salmon fishery was certified as sustainable in June 2011.

Proposed amendments to the default assessment tree are marked in red.



PI 1.1.1		The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing
SG	Issue	Justification/Rationale
60	A: Stock status	It is likely that the wild stock is above the point where recruitment would be
		impaired or fishery impacts are so small as to have no significant effect on the
		stock.
	B: Stock status in	
	relation to target	
	reference point	
80	A: Stock status	It is highly likely that the wild stock is above the point where recruitment
		would be impaired or fishery impacts are so small as to have no significant
		effect on the stock status.
	B: Stock status in	The wild stock is at or fluctuating around its target reference point.
	relation to target	
	reference point	
100	A: Stock status	There is a high degree of certainty that the wild stock is above the point
		where recruitment would be impaired or fishery impacts are so small as to have
		no significant effect on the stock status.
	B: Stock status in	There is a high degree of certainty that the wild stock has been fluctuating
	relation to target	around its target reference point, or has been above its target reference point,
	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 nonlocal 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-abundant 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.



	PI 1.1.2	Limit and target reference points or operational equivalents are appropriate for the wild production components of the stock
SG	Issue	Justification/Rationale
60	A:	Generic limit and target reference points are based on justifiable and
00	Appropriateness	reasonable practice appropriate for the species category.
	of reference points	
	B: Level of limit	
	reference point	
	C: Level of target	
	reference point	
	D: Key low trophic	
	level species target	
	reference point E: Wild stock sub	Where the wild stock is a management unit commissed of more than one
	components	Where the wild stock is a management unit comprised of more than one subcomponent, it is likely that the target and limit reference points are
	components	consistent with maintaining the inherent diversity and reproductive capacity of
		each stock component.
80	A:	Reference points are appropriate for the wild stock and can be estimated.
00	Appropriateness	reference points are appropriate for the wind stock and can be estimated.
	of reference points	
	B: Level of limit	The limit reference point is set above the level at which there is an appreciable
	reference point	risk of impairing reproductive capacity.
	C: Level of target	The target reference point is such that the stock is maintained at a level
	reference point	consistent with B _{MSY} or some measure or surrogate with similar intent or
	D. W. 1. (11	outcome.
	D: Key low trophic level species target	Key low trophic level species, the target reference point takes into account the
	reference point	ecological role of the stock.
	E: Wild stock sub	Where the wild stock is a management unit comprised of more than one sub
	components	component, it is highly likely that the target and limit reference points are
	C	consistent with maintaining the inherent diversity and reproductive capacity of
		each stock subcomponent.
100	A:	
	Appropriateness	
	of reference points	
	B: Level of limit	The limit reference point is set above the level at which there is an appreciable
	reference point	risk of impairing reproductive capacity following consideration of
		precautionary issues.
	C: Level of target	The target reference point is such that the stock is maintained at a level
	reference point	consistent with B _{MSY} or some measure or surrogate with similar intent or
	D: Key low trophic	outcome, or a higher level , and takes into account relevant precautionary
	level species target	issues such as the ecological role of the stock with a high degree of certainty
	reference point	
	E: Wild stock sub	Where the wild stock is a management unit comprised of more than one sub
	components	component, 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 (LRP) 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 typically of salmon species. These guideposts highlight the need to protect the full range of diversity and reproductive capacity among and within stock subcomponents. This diversity is regarded as an essential feature in the long term sustainability of salmon species.



	PI 1.1.3	Where the wild stock or wild stock components are depleted, there is evidence of stock rebuilding
SG	Issue	Justification/Rationale
60	A: Rebuilding strategy design	Where stocks are depleted rebuilding strategies which have a reasonable expectation of success are in place.
	B: Rebuilding timeframes	A rebuilding timeframe is specified for the depleted stock that is the shorter of 30 years or 3 times its generation time. For cases where 3 generations is less than 5 years, the rebuilding timeframe is up to 5 years.
	C: Rebuilding evaluation	Monitoring is in place to determine whether they are effective in rebuilding the stock within a specified timeframe.
80	A: Rebuilding strategy design	Where stocks are depleted rebuilding strategies are in place
	B: Rebuilding timeframes	A rebuilding timeframe is specified for the depleted stock that is the shorter of 20 years or 2 times its generation time . For cases where 2 generations is less than 5 years, the rebuilding timeframe is up to 5 years.
	C: Rebuilding evaluation	There is evidence that they are rebuilding stocks, or it is highly likely based on simulation modelling or previous performance that they will be able to rebuild the stock within a specified timeframe.
100	A: Rebuilding strategy design	Where stocks are depleted, strategies are demonstrated to be rebuilding stocks continuously and there is strong evidence that rebuilding will be complete within the specified timeframe.
	B: Rebuilding timeframes	The shortest practicable rebuilding timeframe is specified which does not exceed one generation time for the depleted stock.
	C: Rebuilding evaluation	

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).



	PI 1.2.1	There is a robust and precautionary harvest strategy in place
SG	Issue	Justification/Rationale
60	A: Harvest strategy design	The harvest strategy is expected to achieve wild stock management objectives reflected in the target and limit reference points.
	B: Harvest strategy evaluation	The harvest strategy is likely to work based on prior experience or plausible argument.
	C: Harvest strategy monitoring	Monitoring is in place that is expected to determine whether the harvest strategy is working.
	D: Harvest strategy review	
80	A: Harvest strategy design	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.
	B: Harvest strategy evaluation	The harvest strategy may not have been fully tested but monitoring is in place and evidence exists that it is achieving its objectives.
	C: Harvest strategy monitoring	
	D: Harvest strategy review	
100	A: Harvest strategy design	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.
	B: Harvest strategy evaluation	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.
	C: Harvest strategy monitoring	
	D: Harvest strategy review	The harvest strategy is periodically reviewed and improved as necessary.



	PI 1.2.2	There are well defined and effective harvest control rules in place
SG	Issue	Justification/Rationale
60	A: Harvest control rules design and application	Generally understood harvest 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.
	B: Harvest control rules account for uncertainty	
	C: Harvest control rules evaluation	There is some evidence that tools used to implement harvest control rules are appropriate and effective in controlling exploitation.
80	A: Harvest control rules design and application	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.
	B: Harvest control rules account for uncertainty	The selection of the harvest control rules takes into account the main uncertainties.
	C: Harvest control rules evaluation	Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.
100	A: Harvest control rules design and application	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.
	B: Harvest control rules account for uncertainty	The design of the harvest control rules takes into account a wide range of uncertainties.
	C: Harvest control rules evaluation	Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the harvest control rules.



	PI 1.2.3	Relevant information is collected to support the harvest strategy
SG	Issue	Justification/Rationale
60	A: Range of information	Some relevant information related to stock structure, stock productivity and fleet composition is available to support the harvest strategy.
	B: Monitoring	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.
	C: Comprehensive- ness of information	
	D: Harvest of stock components	Some relevant information is available on the significance of fishery harvests on various stock components
80	A: Range of information	Sufficient relevant information related to stock structure, stock productivity, fleet composition and other data is available to support the harvest strategy.
	B: Monitoring	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.
	C: Comprehensive- ness of information	There is good information on all other fishery removals from the stock.
	D: Harvest of stock components	Information is sufficient to estimate the significance of fishery harvests on stock components
100	A: Range of information	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 related to the current harvest strategy, is available.
	B: Monitoring	All information required by the harvest control rule is monitored with high
	C: Comprehensive- ness of information	frequency and a high degree of certainty, and there is a good understanding of inherent uncertainties in the information [data] and the robustness of assessment and management to this uncertainty.
	D: Harvest of stock components	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 and the nature of this information 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 stock is whether it is known what stock components are being intercepted by the fishery in your management area, if the harvest rates of each stock component is estimated, and whether the harvest rate is significant to the status of the 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 components. As discussed under PI 1.1.1, limited harvest of some stock components 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.



	PI 1.2.4	There is an adequate assessment of the stock status
SG	Issue	Justification/Rationale
60	A:	
	Appropriateness	
	of assessment to	
	stock under	
	consideration	
	B: Assessment	The assessment estimates stock status relative to reference points.
	approach	The assessment identifies we is a service of an equation.
	C: Uncertainty in the assessment	The assessment identifies major sources of uncertainty.
	D: Evaluation of	
	assessment	
	E: Peer review of	
	assessment	
	F: Stock definition	The majority of stocks are defined with a clear rationale for conservation,
	, 21312	fishery management and stock assessment requirements
	G: Indicator stock	Where indicator stocks are used as the primary source of information for
	definition	making management decisions on larger groups of stocks in a region, there is
	derintion .	some scientific basis for the indicator stock
80	A:	The assessment is appropriate for the stock and for the harvest control rule.
80	Appropriateness	The assessment is appropriate for the stock and for the narvest control rule.
	of assessment to	
	stock under	
	consideration	
	B: Assessment	
	approach	
	C: Uncertainty in	The assessment takes uncertainty into account.
	the assessment	·
	D: Evaluation of	
	assessment	
	E: Peer review of assessment	The assessment of stock status is subject to peer review.
	F: Stock definition	The stocks are well defined and include details on the major component stocks
	2 + Stock definition	with a clear rationale for conservation, fishery management and stock
		assessment requirements
	G: Indicator stock	Where indicator stocks are used as the primary source of information for
	definition	making management decisions on larger groups of stocks in a region, there is
	- Common	some evidence of coherence between the status of the indicator stocks and the
100	A -	status of other stocks they represent with the management unit
100	A:	The assessment is appropriate for the stock and for the harvest control rule and
	Appropriateness of assessment to	takes into account the major features relevant to the biology of the species and
	stock under	the nature of the fishery.
	consideration	
	B: Assessment	
	approach	
	C: Uncertainty in	The assessment takes into account uncertainty and is evaluating stock status
	the assessment	relative to reference points in a probabilistic way.
	D. E-vales discuss 6	
	D: Evaluation of	The assessment has been tested and shown to be robust. Alternative hypotheses
	assessment	and assessment approaches have been rigorously explored.



	PI 1.2.4	There is an adequate assessment of the stock status
SG	Issue	Justification/Rationale
	E: Peer review of assessment	The assessment has been internally and externally peer reviewed.
	F: Stock definition	There is an unambiguous description of the each stock, including its geographic location, run timing, and component stocks with a clear rationale for conservation, fishery management and stock assessment requirements
	G: Indicator stock definition	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.

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. Assessments of some component 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 unit definition in salmon stock assessments.



	PI 1.3.1	Enhancement activities do not negatively impact wild stocks or substitute for a stock rebuilding strategy
SG	Issue	Justification/Rationale
60	A: Enhancement and wild stock productivity	It is likely that the enhancement activities do not have significant negative impacts on productivity or diversity of wild stocks
	B: Enhancement and stock rebuilding	Enhancement activities are not routinely used as a stock rebuilding strategy but may be temporarily in place as a conservative measure to preserve or restore wild diversity threatened by human or natural impacts
80	A: Enhancement and wild stock productivity	It is highly likely that the enhancement activities do not have significant negative impacts on productivity or diversity of wild stocks
	B: Enhancement and stock rebuilding	Enhancement activities are not used as a stock rebuilding strategy
100	A: Enhancement and wild stock productivity	There is a high degree of certainty that the enhancement activities do not have significant negative impacts on productivity or diversity of wild stocks
	B: Enhancement and stock rebuilding	

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 (TAB D-001 v2).

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 1 in the revised FAM. 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). In the initial proposal, these guideposts were added to the corresponding indicators. In this revised proposal, they are separated into new separate indicators based on comments from the MSC and consistent with the approach proposed by the assessment teams involved with other salmon fishery certifications in Alaska and Canada (except that these assessment trees combine outcome and management guideposts within specific indicators).

Potential 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 would minimize 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).







PI 1.3.2		Effective enhancement and fishery strategies are in place to address effects of enhancement on wild stock status
SG	Issue	Justification/Rationale
60	A: Enhancement	Practices and protocols are in place and considered likely to protect wild stocks
	and wild stock	from significant detrimental impacts of enhancement, based on plausible
	status	argument
80	A: Enhancement	There is a partial strategy in place and some objective basis for confidence that
	and wild stock	the partial strategy will protect wild stocks from significant detrimental
	status	impacts of enhancement, based on direct information on the stock or species
		involved.
100	A: Enhancement	There is a comprehensive strategy in place and clear evidence for successful
	and wild stock status	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 (TAB D-001 v2). 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 past salmon assessments in Alaska and Canada.



	PI 1.3.3	Relevant information is collected and assessments are adequate to determine the effect of enhancement activities on wild stock status
SG	Issue	Justification/Rationale
60	A: Information on enhanced fish and wild stock escapement	Some relevant information is available on the contribution of enhanced fish to the harvest and escapement of the wild stock.
	B: Enhancement effects on wild stock status	The effect of enhancement activities on wild stock status, productivity and diversity are taken into account
80	A: Information on enhanced fish and wild stock escapement	Sufficient relevant information is available on the contribution of enhanced fish to the harvest and escapement of the wild stock.
	B: Enhancement effects on wild stock status	The assessment includes estimates of the impacts of enhancement activities on wild stock status, productivity and diversity.
100	A: Information on enhanced fish and wild stock escapement	A comprehensive range of relevant information is available on the contribution of enhanced fish to the harvest and escapement of the wild stock.
	B: Enhancement effects on wild stock status	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 wild stock status, productivity and diversity.

Rationale for addition of new Performance Indicator 1.3.3:

This indicator was added to emphasize the 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 (TAB D-001 v2). 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). In the initial proposal, these guideposts were added to the corresponding indicators. In this revised proposal, they are separated into a new indicators based on comments from the MSC. Marking and monitoring programs will be particularly relevant to evaluations of sufficiency for this indicator.



	PI 2.1.1	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	Issue	Justification/Rationale
60	A: Retained	Main retained species are likely to be within biologically based limits (if not,
	species stock	go to scoring issue d below).
	status	
	B: Target reference points	
	C: Recovery and rebuilding	If main retained species are 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.
	D: Measures if poorly understood	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.
80	A: Retained species stock status	Main retained species are highly likely to be within biologically based limits (if not, go to scoring issue c below).
	B: Target reference points	
	C: Recovery and rebuilding	If main retained species are 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.
	D: Measures if poorly understood	
100	A: Retained species stock status	There is a high degree of certainty that retained species are within biologically based limits and fluctuating around their target reference points.
	B: Target reference points	Target reference points are defined and retained species.
	C: Recovery and rebuilding	
	D: Measures if poorly understood	



	PI 2.1.2	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	Issue	Justification/Rationale
60	A: Management strategy in place	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.
	B: Management Strategy evaluation	The measures are considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/species).
	C: Management strategy implementation	
	D: Management strategy evidence of success	
80	A: Management strategy in place	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.
	B: Management Strategy evaluation	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.
	C: Management strategy implementation	There is some evidence that the partial strategy is being implemented successfully.
	D: Management strategy evidence of success	
100	A: Management strategy in place	There is a strategy in place for managing retained species.
	B: Management Strategy evaluation	Testing supports high confidence that the strategy will work, based on information directly about the fishery and/or species involved.
	C: Management strategy implementation	There is clear evidence that the strategy is being implemented successfully.
	D: Management strategy evidence of success	There is some evidence that the strategy is achieving its overall objective .



PI 2.1.3		Information on the nature and extent of retained species is adequate to
		determine the risk posed by the fishery and the effectiveness of the
G.C.	Т	strategy to manage retained species
SG	Issue	Justification/Rationale
60	A: Information	Qualitative information is available on the amount of main retained species
	quality	taken by the fishery.
	B: Information	Information is adequate to qualitatively assess outcome status with respect to
	adequacy for	biologically based limits.
	assessment of	
	stocks C: Information	Information is adequate to support management to manage main actained anadics
	adequacy for	Information is adequate to support measures to manage main retained species
	management	
	strategy	
	D: Monitoring	
80	A: Information	Qualitative information and some quantitative information are available on
	quality	the amount of main retained species taken by the fishery.
	B: Information	Information is sufficient to estimate outcome status with respect to
	adequacy for	biologically based limits.
	assessment of	
	stocks	
	C: Information	Information is adequate to support a partial strategy to manage main retained
	adequacy for management	species.
	strategy	
	D: Monitoring	Sufficient data continue to be collected to detect any increase in risk level (e.g.
	D. Wollitoring	due to changes in the outcome indicator score or the operation of the fishery or
		the effectiveness of the strategy)
100	A: Information	Accurate and verifiable information is available on the catch of all retained
100	quality	species and the consequences for the status of affected populations.
	B: Information	Information is sufficient to quantitatively estimate outcome status with a
	adequacy for	high degree of certainty.
	assessment of	angle de
	stocks	
	C: Information	Information is adequate to support a comprehensive strategy to manage
	adequacy for	retained species, and evaluate with a high degree of certainty whether the
	management strategy	strategy is achieving its objective.
	D: Monitoring	Monitoring of retained species is conducted in sufficient detail to assess
		ongoing mortalities to all retained species.



	PI 2.2.1	The fishery and its enhancement activities do 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	Issue	Justification/Rationale
60	A: Bycatch species stock status	Main bycatch species are likely to be within biologically based limits (if not, go to scoring issue b below).
	B: Recovery and rebuilding	If main bycatch species are outside biologically based limits there are mitigation measures in place that are expected to ensure that the fishery does not hinder recovery and rebuilding
	C: Measures if poorly understood	If the status is poorly known there are measures or practices in place that are expected to result in the fishery not causing the bycatch species to be outside biologically based limits or hindering recovery.
80	A: Bycatch species stock status	Main bycatch species are highly likely to be within biologically based limits (if not, go to scoring issue b below).
	B: Recovery and rebuilding	If main bycatch species are outside biologically based limits there is a partial strategy of demonstrably effective mitigation measures in place such that the fishery does not hinder recovery and rebuilding.
	C: Measures if poorly understood	
100	A: Bycatch species stock status	There is a high degree of certainty that bycatch species are within biologically based limits.
	B: Recovery and rebuilding	
	C: Measures if poorly understood	



	PI 2.2.2	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	Issue	Justification/Rationale
60	A: Management strategy in place	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.
	B: Management strategy evaluation	The measures are considered likely to work, based on plausible argument (e.g. general experience, theory or comparison with similar fisheries/species).
	C: Management strategy implementation	
	D: Management strategy evidence of success	
80	A: Management strategy in place	There is a partial strategy in place, if necessary, for managing 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.
	B: Management strategy evaluation	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.
	C: Management strategy implementation	There is some evidence that the partial strategy is being implemented successfully.
	D: Management strategy evidence of success	
100	A: Management strategy in place	There is a strategy in place for managing and minimising bycatch
	B: Management strategy evaluation	Testing supports high confidence that the strategy will work, based on information directly about the fishery and/or species involved.
	C: Management strategy implementation	There is clear evidence that the strategy is being implemented successfully.
	D: Management strategy evidence of success	There is some evidence that the strategy is achieving its objective.



PI 2.2.3 Information on the nature and the amount of bycatch is adequate to determine risk posed by the fishery and the effectiveness of the strategy to manage bycat		• • • • • • • • • • • • • • • • • • •	
SG	Issue		Justification/Rationale
60	A: Infor		Qualitative information is available on the main bycatch species affected by the fishery.
	B: Informadequate assessments stock	cy for ent of ks	Information is adequate to broadly understand outcome status with respect to biologically based limits
	C: Informadequate manage strate	cy for ement egy	Information is adequate to support measures to manage bycatch.
	D: Moni	0	
80	A: Inform		Qualitative information and some quantitative information are available on the amount of main bycatch species affected by the fishery.
	B: Informadequate assessm	cy for ent of	Information is sufficient to estimate outcome status with respect to biologically based limits.
	C: Informadequate manage	cy for ement	Information is adequate to support a partial strategy to manage main bycatch species.
	D: Moni	Ü	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 effectively of the strategy).
100	A: Infor		Accurate and verifiable information is available on the amount of all bycatch and the consequences for the status of affected populations.
	B: Informadequate assessments stock	cy for ent of ks	Information is sufficient to quantitatively estimate outcome status with respect to biologically based limits with a high degree of certainty .
	C: Informadequate manage	cy for ement egy	Information is adequate to support a comprehensive strategy to manage bycatch, and evaluate with a high degree of certainty whether a strategy is achieving its objective .
	D: Moni	itoring	Monitoring of bycatch data is conducted in sufficient detail to assess ongoing mortalities to all bycatch species.



PI 2.3.1		The fishery meets national and international requirements for the 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	Issue	Justification/Rationale
60	A: Fishery effects within limits	Known effects of the fishery are likely to be within limits of national and international requirements for protection of ETP species.
	B: Direct effects	Known direct effects of the fishery including its enhancement activities are unlikely to create unacceptable impacts to ETP species.
	C: Indirect effects	
80	A: Fishery effects within limits	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.
	B: Direct effects	Direct effects are of the fishery including its enhancement activities highly unlikely to create unacceptable impacts to ETP species.
	C: Indirect effects	Indirect effects have been considered and are thought to be unlikely to create unacceptable impacts.
100	A: Fishery effects within limits	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.
	B: Direct effects	There is a high degree of confidence that there are no significant detrimental direct effects of the fishery including its enhancement activities on ETP species.
	C: Indirect effects	There is a high degree of confidence that there are no significant detrimental indirect effects 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 emphasize that in case of stock enhancement, the impact of the enhancement operation as a whole is reviewed for potential effects on ETP species (potential water diversion, effluent, etc.). This is considered conservative and precautionary given the situation.



	PI 2.3.2	 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 harm to ETP species; Ensure the fishery does not hinder recovery of ETP species; and Minimise mortality of ETP species.
SG	Issue	Justification/Rationale
60	A: Management strategy in place B: Management	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
	strategy evaluation	(e.g., general experience, theory or comparison with similar fisheries/species).
	C: Management strategy implementation	
	D: Management strategy evidence of success	
80	A: Management strategy in place	There is a strategy in place for managing the fishery's impact and its enhancement activities on ETP species, including measures to minimise mortality, that is designed to be highly likely to achieve national and international requirements for the protection of ETP species.
	B: Management strategy evaluation	There is an objective basis for confidence that the strategy will work, based on information directly about the fishery and/or the species involved.
	C: Management strategy implementation	There is evidence that the strategy is being implemented successfully.
	D: Management strategy evidence of success	
100	A: Management strategy in place	There is a comprehensive strategy in place for managing the fishery's impact and its 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.
	B: Management strategy evaluation	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.
	C: Management strategy implementation	There is clear evidence that the strategy is being implemented successfully.
	D: Management strategy evidence of success	There is evidence that the strategy is achieving its objective.



Evaluation Table: PI 2.3.2 Alternate

PI	2.3.2 There is a strategy in place for managing ETP species that is designed to ensure the fishery does not hinder the recovery of ETP species.	
SG	Issue	Justification/Rationale
60	A: Management strategy in place	There are measures in place that are expected to ensure the fishery and its enhancement activities does not hinder the recovery of ETP species.
	B: Management strategy evaluation	The measures are considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/species).
	C: Management strategy implementation	
80	A: Management strategy in place	There is a partial strategy in place that are expected to ensure the fishery and its enhancement activities does not hinder the recovery of ETP species.
	B: Management strategy evaluation	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.
	C: Management strategy implementation	There is some evidence that the partial strategy is being implemented successfully.
100	A: Management strategy in place	There is a strategy in place for managing ETP species, to ensure the fishery and its enhancement activities does not hinder the recovery of ETP species.
	B: Management strategy evaluation	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.
	C: Management strategy implementation	There is clear evidence that the strategy is being implemented successfully , and intended changes are occurring.



PI 2.3.3		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	Issue	Justification/Rationale
60	A: Information quality	Information is sufficient to qualitatively estimate the fishery and its enhancement activities related mortality of ETP species.
	B: Information adequacy for assessment of stocks	Information is adequate to broadly understand the impact of the fishery on ETP species.
	C: Information adequacy for management strategy	Information is adequate to support measures to manage the impacts on ETP species.
80	A: Information quality	Sufficient data are available to allow fishery and its enhancement activities related mortality and the impact of fishing to be quantitatively estimated for ETP species.
	B: Information adequacy for assessment of stocks	Information is sufficient to determine whether the fishery and its enhancement activities may be a threat to protection and recovery of the ETP species.
	C: Information adequacy for management strategy	Information is sufficient to measure trends and support a full strategy to manage impacts on ETP species.
100	A: Information quality	Information is sufficient to quantitatively estimate outcome status of ETP species with a high degree of certainty.
	B: Information adequacy for assessment of stocks	Accurate and verifiable information is available on the magnitude of all impacts, mortalities and injuries and the consequences for the status of ETP species.
	C: Information adequacy for management strategy	Information is adequate to support a comprehensive strategy to manage impacts, minimise mortality and injury of ETP species, and evaluate with a high degree of certainty whether a strategy is achieving its objectives.



PI 2.4.1		The fishery does not cause serious or irreversible harm to habitat structure, considered on a regional or bioregional basis and function
SG	Issue	Justification/Rationale
60	A: Habitat status	The fishery is unlikely to reduce habitat structure and function to a point where
		there would be serious or irreversible harm.
	B: Enhancement	The enhancement activities are unlikely to reduce habitat structure and function
	activities and	to a point where there would be serious or irreversible harm
	habitat	
80	A: Habitat status	The fishery is highly unlikely to reduce habitat structure and function to a
		point where there would be serious or irreversible harm.
	B: Enhancement	The enhancement activities are highly unlikely to reduce habitat structure and
	activities and	function to a point where there would be serious or irreversible harm
	habitat	
100	A: Habitat status	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.
	B: Enhancement	There is evidence that the enhancement activities are highly unlikely to reduce
	activities and	habitat structure and function to a point where there would be serious or
	habitat	irreversible harm



	PI 2.4.2	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	Issue	Justification/Rationale
60	A: Management	There are measures in place for managing the impact of the fishery and
	strategy in place	enhancement activities, if necessary, that are expected to achieve the Habitat
		Outcome 80 level of performance.
	B: Management	The measures are considered likely to work, based on plausible argument (e.g.
	strategy	general experience, theory or comparison with similar fisheries/habitats).
	evaluation	
	C: Management	
	strategy	
	implementation	
	D: Management	
	strategy evidence	
0.0	of success	
80	A: Management	There is a partial strategy in place for managing the impact of the fishery and
	strategy in place	enhancement activities, if necessary, that is expected to achieve the Habitat
		Outcome 80 level of performance or above.
	B: Management	There is some objective basis for confidence that the partial strategy will
	strategy	work, based on information directly about the fishery and/or habitats
	evaluation	involved.
	C: Management	There is some evidence that the partial strategy is being implemented
	strategy	successfully.
	implementation	
	D: Management	
	strategy evidence	
100	of success	
100	A: Management	There is a strategy in place for managing the impact of the fishery and
_	strategy in place	enhancement activities on habitat types.
	B: Management	Testing supports high confidence that the strategy will work, based on
	strategy	information directly about the fishery and/or habitats involved.
_	evaluation C. Management	
	C: Management strategy	There is clear evidence that that strategy is being implemented successfully.
	implementation	
-	D: Management	There is some evidence that the strategy is achieving its objective.
	strategy evidence	There is some evidence that the strategy is define ving its objective.
	of success	



	PI 2.4.3	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	Issue	Justification/Rationale
60	A: Information quality	There is basic understanding of the types and distribution of main habitats in the area of the fishery.
	B: Information adequacy for assessment of stocks	Information is adequate to broadly understand the nature of the main impacts of gear use and enhancement activities on the main habitats, including spatial overlap of habitat with fishing gear.
	C: Information adequacy for management strategy	
80	A: Information quality	The nature, distribution and vulnerability of all main habitat types in the fishery are known at a level of detail relevant to the scale and intensity of the fishery.
	B: Information adequacy for assessment of stocks	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 of interaction, and the timing and location of use of the fishing gear.
	C: Information adequacy for management strategy	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).
100	A: Information quality	The distribution of habitat types is known over their range, with particular attention to the occurrence of vulnerable habitat types.
	B: Information adequacy for assessment of stocks	The physical impacts of the gear and enhancement activities on the habitat types have been quantified fully.
	C: Information adequacy for management strategy	Changes in habitat distributions over time are measured.



	PI 2.5.1	The fishery does not cause serious or irreversible harm to the key elements of ecosystem structure and function
SG	Issue	Justification/Rationale
60	A: Ecosystem	The fishery is unlikely to disrupt the key elements underlying ecosystem
	status	structure and function to a point where there would be a serious or irreversible
		harm.
	B: Enhancement	The enhancement activities are unlikely to disrupt the key elements underlying
	activities and the	ecosystem structure and function to a point where there would be serious or
	ecosystem	irreversible harm
80	A: Ecosystem	The fishery is highly unlikely to disrupt the key elements underlying
	status	ecosystem structure and function to a point where there would be a serious or
		irreversible harm.
	B: Enhancement	The enhancement activities are highly unlikely to disrupt the key elements
	activities and the	underlying ecosystem structure and function to a point where there would be
	ecosystem	serious or irreversible harm
100	A: Ecosystem	There is evidence that the fishery is highly unlikely to disrupt the key elements
	status	underlying ecosystem structure and function to a point where there would be a
		serious or irreversible harm.
	B: Enhancement	There is evidence that the enhancement activities are highly unlikely to disrupt
	activities and the	the key elements underlying ecosystem structure and function to a point where
	ecosystem	there would be serious or irreversible harm

Rationale for modification of Indicator 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 as required under TAB D-001v2 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.



	PI 2.5.2	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	Issue	Justification/Rationale
60	A: Management	There are measures in place, if necessary.
	strategy in place	
	B: Management	The measures take into account potential impacts of the fishery and
	strategy	enhancement activities on key elements of the ecosystem.
	evaluation C. Management	The second of the state of the
	C: Management	The measures are considered likely to work, based on plausible argument
	strategy implementation	(e.g., general experience, theory or comparison with similar
	_	fisheries/ecosystems).
	D: Management strategy evidence	
	of success	
80	A: Management	There is a partial strategy in place, if necessary
00	strategy in place	There is a partial strategy in place, it necessary
	B: Management	The partial strategy takes into account available information and is expected
	strategy	to restrain impacts of the fishery and enhancement activities on the ecosystem
	evaluation	so as to achieve the Ecosystem Outcome 80 level of performance.
	C: Management	The partial strategy is considered likely to work, based on plausible argument
	strategy	(e.g., general experience, theory or comparison with similar
	implementation	fisheries/ecosystems).
	D: Management	There is some evidence that the measures comprising the partial strategy are
	strategy evidence	being implemented successfully.
	of success	· ·
100	A: Management	There is a strategy that consists of a plan , in place.
	strategy in place	
	B: Management strategy	The strategy , which consists of a plan , contains measures to address all main
	evaluation	impacts of the fishery and enhancement activities on the ecosystem, and at
	Cvaraation	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.
		This plan provides for development of a full strategy that restrains impacts
		on the ecosystem to ensure the fishery does not cause serious or irreversible
		harm.
	C: Management	The measures are considered likely to work based on prior experience ,
	strategy	plausible argument or information directly from the fishery/ecosystems
	implementation	involved.
	D: Management	There is evidence that the measures are being implemented successfully .
	strategy evidence	There is evidence that the measures are being implemented successiony.
	of success	



PI 2.5.3		There is adequate knowledge of the impacts of the fishery on the ecosystem
SG	Issue	Justification/Rationale
60	A: Information quality	Information is adequate to identify the key elements of the ecosystem (e.g., trophic structure and function, community composition, productivity pattern and biodiversity).
	B: Investigation of fishery impacts	Main impacts of the fishery and enhancement activities on these key ecosystem elements can be inferred from existing information, and have not been investigated in detail.
	C: Understanding of component functions	
	D: Information relevance	
	E: Monitoring	
80	A: Information quality	Information is adequate to broadly understand the key elements of the ecosystem.
	B: Investigation of fishery impacts	Main impacts of the fishery and enhancement activities on these key ecosystem elements can be inferred from existing information and some have been investigated in detail.
	C: Understanding of component functions	The main functions of the Components (i.e., target, Bycatch, Retained and ETP species and Habitats) in the ecosystem are known .
	D: Information relevance	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.
	E: Monitoring	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).
100	A: Information quality	
	B: Investigation of fishery impacts	Main interactions between the fishery and these ecosystem elements can be inferred from existing information, and have been investigated .
	C: Understanding of component functions	The impacts of the fishery and enhancement activities on target, Bycatch and ETP species are identified and the main functions of these Components in the ecosystem are understood .
	D: Information relevance	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.
	E: Monitoring	Information is sufficient to support the development of strategies to manage ecosystem impacts.



PI 3.1.1		 The management system exists within an appropriate 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	Issue	Justification/Rationale
60	A: Consistency with laws or standards	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.
	B: Resolution of disputes	The management system incorporates or is subject by law to a mechanism for the resolution of legal disputes arising within the system.
	C: Approach to disputes	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 of the fishery.
	D: Respect for rights	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.
80	A: Consistency with laws or standards	
	B: Resolution of disputes	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.
	C: Approach to disputes	The management system or fishery is attempting to comply in a timely fashion within binding judicial decisions arising from any legal challenges.
	D: Respect for rights	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.
100	A: Consistency with laws or standards	
	B: Resolution of disputes	The management system incorporates or 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 .
	C: Approach to disputes	The management system or fishery acts proactively to avoid legal disputes or rapidly implements binding judicial decisions arising from legal challenges.
	D: Respect for rights	The management system has a mechanism to formally commit to the legal rights created explicitly or established by custom of people dependent on fishing for food and livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.



	PI 3.1.2	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	Issue	Justification/Rationale
60	A: Roles and responsibilities	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are generally understood.
	B: Consultation processes	The management system includes consultation processes that obtain relevant information from the main affected parties, including local knowledge, to inform the management system.
	C: Participation	
80	A: Roles and responsibilities	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.
	B: Consultation processes	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.
	C: Participation	The consultation process provides opportunity for all interested and affected parties to be involved.
100	A: Roles and responsibilities	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.
	B: Consultation processes	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 .
	C: Participation	The consultation process provides opportunity and encouragement for all interested and affected parties to be involved, and facilitates their effective engagement.



PI 3.1.3		The management policy has clear long-term objectives to guide decision-making for wild stock components and sue of enhancement programs that are consistent with MSC Principles and Criteria, and incorporates the precautionary approach
SG	Issue	Justification/Rationale
60	A: Objectives	Long-term objectives to guide decision-making, consistent with the MSC
		Principles and Criteria and the precautionary approach, are implicit within
		management policy
80	A: Objectives	Clear long-term objectives that guide decision-making, consistent with MSC
		Principles and Criteria and the precautionary approach are explicit within
		management policy.
100	A: Objectives	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.



PI 3.1.4		The management system provides economic and social incentives for sustainable fishing and does not operate with subsidies that contribute to unsustainable fishing
SG	Issue	Justification/Rationale
60	A: Incentives	The management system provides for incentives that are consistent with
		achieving the outcomes expressed by MSC Principles 1 and 2.
80	A: Incentives	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 perverse incentives do not arise.
100	A: Incentives	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 they not contribute to unsustainable fishing practices.



PI 3.2.1		The fishery and its enhancement activities has clear, specific objectives designed to achieve the outcomes expressed by MSC's Principles 1 and 2
SG	Issue	Justification/Rationale
60	A: Objectives	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.
80	A: Objectives	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.
100	A: Objectives	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.



	PI 3.2.2	The fishery-specific and hatchery management system includes effective decision-making processes that result in measures and strategies to achieve the objectives
SG	Issue	Justification/Rationale
60	A: Decision making processes	There are some decision-making processes in place that result in measures and strategies to achieve the fishery-specific and enhancement objectives.
	B: Responsiveness of decision-making processes	Decision-making processes respond to serious issues _identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take some account of the wider implications of decisions.
	C: Use of precautionary approach	
	D: Transparency of decision-making	
80	A: Decision making processes	There are established decision-making processes that result in measures and strategies to achieve the fishery-specific and enhancement objectives.
	B: Responsiveness of decision-making processes	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.
	C: Use of precautionary approach	Decision-making processes use the precautionary approach and are based on best available information.
	D: Transparency of decision-making	Explanations are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.
100	A: Decision making processes	
	B: Responsiveness of decision-making processes	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.
	C: Use of precautionary approach	
	D: Transparency of decision-making	Formal reporting to all interested stakeholders describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.



	PI 3.2.3	Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with
SG	Issue	Justification/Rationale
60	A: MCS	Monitoring, control and surveillance mechanisms exist are implemented in the
00	implementation	fishery and enhancement activities under assessment and there is a reasonable
		expectation that they are effective.
	B: Sanctions	Sanctions to deal with non-compliance exist and there is some evidence that
		they are applied.
	C: Compliance	Fishers are generally thought to comply with the management system for the
		fishery under assessment, including, when required, providing information of
		importance to the effective management of the fishery.
	D: Systematic non-	
	compliance	
80	A: MCS	A monitoring, control and surveillance system has been implemented in the
	implementation	fishery and enhancement activities under assessment and has demonstrated an
		ability to enforce relevant management measures, strategies and/or rules.
	B: Sanctions	Sanctions to deal with non-compliance exist, are consistently applied and
		thought to provide effective deterrence.
	C: Compliance	Some evidence exists to demonstrate fishers comply with the management
		system under assessment, including, when required, providing information of
		importance to the effective management of the fishery.
	D: Systematic non-	There is no evidence of systematic non-compliance.
100	compliance A: MCS	A comprehensive monitoring, control and surveillance system has been
100	implementation	implemented in the fishery and enhancement activities under assessment and
	imprementation	has demonstrated a consistent ability to enforce relevant management
		measures, strategies and/or rules.
	B: Sanctions	Sanctions to deal with non-compliance exist, are consistently applied and
		demonstrably provide effective deterrence.
	C: Compliance	There is a high degree of confidence that fishers comply with the management
		system under assessment, including, providing information of importance to
		the effective management of the fishery.
	D: Systematic non-	
	compliance	



PI 3.2.4		The fishery and its related enhancement activities has a research plan that addresses the information needs of management
SG	Issue	Justification/Rationale
60	A: Research plan	Research is undertaken, as required, to achieve the objectives consistent with
		MSC's Principles 1 and 2.
	B: Research	Research results are available to interested parties.
	results	
80	A: Research plan	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.
	B: Research	Research results are disseminated to all interested parties in a timely fashion.
	results	,
100	A: Research plan	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.
	B: Research	Research plan and results are disseminated to all interested parties in a timely
	results	fashion and are widely and publicly available.



	PI 3.2.5	There is a system of 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	Issue	Justification/Rationale
60	A: Evaluation coverage	The fishery and hatchery program has in place mechanisms to evaluate some parts of the management system.
	B: Internal and/or external review	The fishery and hatchery program management system is subject to occasional internal review.
80	A: Evaluation coverage	The fishery and hatchery program has in place mechanisms to evaluate key parts of the management system
	B: Internal and/or external review	The fishery and hatchery program management system is subject to regular internal and occasional external review.
100	A: Evaluation coverage	The fishery and hatchery program has in place mechanisms to evaluate all parts of the management system.
	B: Internal and/or external review	The fishery and hatchery program management system is subject to regular internal and external review.



Principle Wt (L1)		Component	Wt (L2)	PI No.	Performance Indicator (PI)	Wt (L3)	Weight in Principle	Score			Contribution to Principle Score	
	ı					either	•	or		either	or	
One	1	Outcome	0.375	1.1.1	Stock status	0.500	0.1875	0.3333	0.1250	0.00	0.00	
				1.1.2	Reference points	0.500	0.1875	0.3333	0.1250	0.00	0.00	
				1.1.3	Stock rebuilding		:309389359	0.3333	0.1250		0.00	
	Γ	Management	0.375	1.2.1	Harvest strategy	0.25	0.094			0.00		
	- 1			1.2.2	Harvest control rules & tools	0.25	0.094			0.00		
				1.2.3	Information & monitoring	0.25	0.094			0.00		
	1			1.2.4	Assessment of stock status	0.25	0.094			0.00		
		Enhancement	0.250	1.3.1	Enhancement Outcomes	0.333	0.0833			0.00		
				1.3.2	Management	0.333	0.0833			0.00		
	-			1.3.3	Information	0.333	0.0833			0.00		
Two 1	1	Retained species	0.200	2.1.1	Outcome	0.333	0.0667			0.00		
	- 1			2.1.2	Management	0.333	0.0667			0.00		
	-			2.1.3	Information	0.333	0.0667			0.00		
	- 1	Bycatch species	0.200	2.2.1	Outcome	0.333	0.0667			0.00		
				2.2.2	Management	0.333	0.0667			0.00		
	-	FTDl	0.000	2.2.3	Information	0.333	0.0667			0.00		
		ETP species	0.200	2.3.1	Outcome	0.333	0.0667			0.00		
	- 1			2.3.2	Management Information	0.333	0.0667			0.00		
	- 1	Habitats	0.200	2.4.1	Outcome	0.333	0.0667			0.00		
	- 1	Habitats	0.200	2.4.1	Management	0.333	0.0667			0.00		
				2.4.3	Information	0.333	0.0667			0.00		
	ŀ	Ecosystem	0.200	2.5.1	Outcome	0.333	0.0667			0.00		
	- 1	LCOSystem	0.200	2.5.2	Management	0.333	0.0667			0.00		
				2.5.3	Information	0.333	0.0667			0.00		
Three	1	Governance and	0.500	3.1.1	Legal & customary framework	0.25	0.125			0.00		
		policy		3.1.2	Consultation, roles & responsibilities	0.25	0.125			0.00		
	- 1			3.1.3	Long term objectives	0.25	0.125			0.00		
	- 1			3.1.4	Incentives for sustainable fishing	0.25	0.125			0.00		
	- 1	Fishery specific	0.500	3.2.1	Fishery specific objectives	0.2	0.1			0.00		
		management	2.000	3.2.2	Decision making processes	0.2	0.1			0.00		
	- 1	system		3.2.3	Compliance & enforcement	0.2	0.1			0.00		
				3.2.4	Research plan	0.2	0.1			0.00		
				3.2.5	Management performance evaluation	0.2	0.1			0.00		

Overall weighted Principle-level scores		Either	Or
Principle 1 - Target Species	Stock rebuilding PI not scored	0.0	
The second secon	Stock rebuilding PI scored		0.0
Principle 2 - Ecosystem		0.0	
Principle 3 - Management		0.0	