AUDIT MANUAL - ASC Freshwater Trout Standard
Version 1.1, March 2019

Scope: Rainbow trout (*Oncorhynchus mykiss*) or any other salmonids grown in fresh water
This audit manual was developed to accompany the version of the ASC Freshwater Trout Standard.

INSTRUCTION TO FARMS/AUDITORS:
This audit manual was developed to accompany version 1.1 of the ASC Freshwater Trout Standard.

PRINCIPLE 1: COMPLY WITH ALL NATIONAL AND LOCAL LAWS AND REGULATIONS

Criterion 1.1 Operate within the legal framework of national and local laws and regulations that are applicable and current

		Compliance Criteria (Required Client Actions):	Auditor Evaluation (Required CAB Actions):
1.1.1	**Indicator**: Presence of documents issued by pertinent authorities indicating compliance with local and national authorities on land and water use **Requirement:** Yes **Applicability:** All	a. Maintain copies of key land and water use laws (both local and national) that apply to regulating the environmental and social impacts of aquaculture.	A. Confirm that the producer has copies of key land and water use laws of direct relevance to aquaculture impacts.
		b. Maintain original lease agreements, land titles, concession permits, or related official land use documents on file as applicable.	B. Confirm that the client holds original lease agreements or land titles. Other documents may be accepted as evidence if they are issued by a pertinent legal authority and clearly establish that the farm has legitimate land tenure.
		c. Keep records of inspections for compliance with national and local laws and regulations (if such inspections are legally required in the country of operation).	C .Verify presence of a copy of records of inspections (where such inspections are legally required and paperwork can be provided to producers).
		d. Obtain permits and maps showing that the farm does not conflict with national preservation areas (see Indicator 2.1.1)	D. Confirm that the producer has evidence showing that the facility does not conflict with designated preservation areas and has required operational permits if sited in such an area (see 2.1.1).
1.1.2	**Indicator**: Presence of documents indicating compliance with tax laws **Requirement:** Yes **Applicability:** All	Note: To ensure that all tax-related information for 1.1.2 is available for auditor review, farms may wish to consolidate required documentation prior to the audit (e.g. when files are held at off-site facilities such as a head office or accountancy).	
		a. Maintain copies of tax laws for jurisdiction(s) where company operates.	A. Verify presence of a copy of tax laws.
		b. Maintain records of tax payments to appropriate authorities (e.g. land use tax, water use tax, revenue tax). Note that CABs will not disclose confidential tax information unless client is required to or chooses to make it public.	B. Verify that the client has records of tax payments to the appropriate authorities. Do not disclose client tax information which is confidential.
		c. Register with national or local authorities as an "aquaculture activity" where such registration is consistent with regulations. Maintain copies of registration documents and the contact details for relevant authorities.	C. Verify that the client is registered with local or national authorities.
1.1.3	**Indicator**: Presence of documents indicating compliance with all labor laws and regulations **Requirement:** Yes **Applicability:** All	Note: Indicator 1.1.3 is restricted in applicability and applies only to those farm sites within the unit of certification.	
		a. Maintain copies of key labor laws and regulations that are applicable to regulating the social impacts of aquaculture.	A. Confirm that the producer has copies of key labor laws and regulations of direct relevance to social impacts of aquaculture.
		b. Keep records of farm inspections for compliance with national labor laws and codes (only if such inspections are legally required in the country of operation).	B. Confirm that the client has the specified documentation from the appropriate authorities (where such inspections are legally required and paperwork is provided to producers).
	Indicator: Presence of documents indicating compliance with regulations or permits concerning water quality impacts, effluent	a. Maintain copies of key regulations and permitting requirements that apply to water quality impacts, effluent discharge and water abstraction by the farm.	A. Confirm that the client maintains copies of key regulations and permitting requirements as specified.
		b. Obtain permits for water quality impacts where applicable.	B. Confirm that the client obtains water quality permits as applicable.
		c. Maintain records of monitoring and compliance with discharge laws and regulations as required.	C. Verify that records show compliance with discharge laws and regulations.

1.1.4	regulations or permits concerning water quality impacts, effluent and water abstraction **Requirement:** Yes **Applicability:** All	d. Obtain a statement from local authorities indicating the water abstraction limits (units given) for the farm. If local authorities do not set water abstraction limits for farms operating in the region, obtain of a statement from local authorities attesting to this fact.	D. Review the water abstraction limits set for the farm by local authorities. If local authorities do not set water abstraction limits, confirm that the farm has an attestation.
		e. Maintain records of water abstraction.	E. Verify that the farm keeps complete records of water abstraction.
		-	F. Check the farm's water intake against the water abstraction limits to verify compliance with regulations or permits. Cross-check against reported values for total water abstracted (see 3.1.1b).
PRINCIPLE 2: CONSERVE HABITAT AND BIODIVERSITY			
Criterion 2.1 Siting and location of farms [2]			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
Footnote	[2] To determine its compliance with the requirements in criterion 2.1, a producer will need documentation that analyzes the farm's siting and surrounding habitats and ecosystems. Documentation can be based on an Environmental Impact Assessment (EIA) or any other credible process of environmental assessment.		
2.1.1	**Indicator**: Allowance for siting in National Protected Areas [3] **Requirement:** None [4,5] **Applicability:** All except as noted in [4] and [5]	**Instruction to Clients for Indicator 2.1.1 - Exceptions to Requirements that Farms are not sited in National Protected Areas** For the purposes of implementing Indicator 2.1.1, the ASC Freshwater Trout Standard defines a protected area as "a clearly defined geographical space, recognized, dedicated and managed through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values [3]." The following exceptions shall be made for Indicator 2.1.1: Exception #1: An exception is made for protected areas that are classified by the International Union for Conservation of Nature (IUCN) as Category V or VI. These are areas preserved primarily for their landscapes, or areas that include sustainable resource management [4]. Exception #2: An exception is also made for farms located in protected areas that are designated as such after the farm already was established in that location. In these situations, the farm must demonstrate that its operation is compatible with the objectives of the protected area, and that it is in compliance with any relevant conditions placed on the farm by authorities as a result of the protected designation [5]. The burden of proof is placed on the farm to demonstrate that it is not negatively impacting the core reason an area has been protected. Where a farm is sited in a protected areas that does not have formal national recognition (e.g. within a regionally-designated protected area), the farm should provide the CAB with a rationale showing how the aquaculture operation is compatible with the objectives of that protected area (as in Exception #2 above).	
		a. Provide a map showing the location of the farm relative to nearby protected areas as defined by national laws (also see 1.1.1d).	A. Review map of national protected areas and cross-check against farm location.
		b. If the farm is <u>not</u> sited in a protected area as defined above, inform the CAB. In this case, the requirements of 2.1.1c-d do not apply.	B. If the farm is not sited in a protected area, make note of this fact in the audit report. Otherwise proceed to 2.1.1c.
		c. If the farm <u>is</u> sited in a protected area, review the Instructions for Indicator 2.1.1 (above) to determine if the farm is allowed an exception to the requirements. If yes, inform the CAB which exception (#1 or #2) is allowed and provide supporting evidence.	C. Review the applicability of the exception requested by the farm together with the supporting evidence to determine if the farm is eligible. If yes, Indicator 2.1.1 is not applicable.
		d. If the farm is sited in a protected area and the exceptions provided for Indicator 2.1.1 <u>do not apply</u>, then the farm does not comply with the requirement and is ineligible for ASC certification.	D. Review evidence to determine whether the farm is allowed to be sited in a protected area and hence eligible for ASC certification.
Footnote	[3] A protected area is "a clearly defined geographical space, recognized, dedicated and managed through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values." Source: Dudley, N. (Editor) (2008), Guidelines for Applying Protected Area Management Categories, Gland, Switzerland: IUCN. x + 86pp.		
Footnote	[4] An exception is made for protected areas that are classified by the International Union for Conservation of Nature (IUCN) as Category V or VI. These are areas preserved primarily for their landscapes, or areas that include sustainable resource management. Details can be found here: http://www.iucn.org/about/work/programmes/pa/pa_products/wcpa_categories/.		
Footnote	[5] An exception is also made for farms located in protected areas that are designated as such after the farm already was established in that location. In these situations, the farm must demonstrate that its operation is compatible with the objectives of the protected area, and that it is in compliance with any relevant conditions placed on the farm by authorities as a result of the protected designation.		

2.1.2	**Indicator**: Conversion of wetlands [6] after 1999 **Requirement:** None [7] **Applicability:** All except as noted in [7]	Note: An exception to Indicator 2.1.2 is allowed where conversion of wetlands is for water use (e.g., canals for inlets and outlets). Converted surface area must be offset by restoration of 100% of the equivalent area of functional wetlands with the same habitat characteristics [7].	
		a. Provide documentary evidence showing all construction activities and the habitat types impacted by those activities on the farm since 1999.	A. Review evidence for date of all construction activities ~~or~~ and the types of habitats (e.g. wetland, forest, grassland) impacted by those activities on the farm since 1999.
		b. Provide a map delineating all wetlands (as defined in [6]) currently within a 5-km radius of the farm.	B. Evaluate whether there is evidence for any wetland conversion occuring within a 5-km radius of the farm since 1999.
		c. Prepare a map showing wetland coverage in 1999 at the farm site.	C. If evidence shows that current farm siting or construction activities have resulted in loss of wetland habitat since 1999, then the farm is not certifiable.
Footnote	[6] Wetland: Generally, wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. Wetlands generally include swamps, marshes, bogs and fens (U.S. Environmental Protection Agency).		
Footnote	[7] Exception: Conversion of wetlands for access to water (e.g., canals for inlets and outlets): Converted surface area must be offset by restoration of 100% of the equivalent area of functional wetlands with the same habitat characteristics.		
2.1.3	**Indicator**: An assessment of the presence on the farm of species listed on the International Union for Conservation of Nature (IUCN) "Red List of Threatened Species" as vulnerable, near threatened, endangered or critically endangered; an evaluation of the farm's impact on any such species present; and clearly defined mitigation measures to reduce any negative impacts and allow existence of such species **Requirement:** Yes **Applicability:** All	**Instruction to Clients for Indicator 2.1.3 - Assessment of the Presence of IUCN Red Listed Species on the Farm** Indicator 2.1.3 requires the farm to demonstrate that an assessment has been undertaken to evaluate the likelihood that species listed on the International Union for Conservation of Nature (IUCN) "Red List of Threatened Species" (see Note 1) are present on or near the the farm site. The assessment may be performed internally (i.e. by the farm) or it may be done externally by a third-party entity (see Note 2). The assessment shall involve identifying IUCN red list species and their critical habitats that are present in the region of the farm (i.e. within a 5 km radius of the farm). The analysis should be done as follows: - go to http://www.iucnredlist.org/ - follow to "other search options" - select "Taxonomy" and select "Animalia" and "Plantae"; click on the red arrow in between the selection fields to confirm the selection - indicate appropriate "Location", "Systems", "Habitat", "Assessment" (see Note 1); click on the red arrow in between the selection fields to confirm the selection - click on "run search" and record species listed and whether they are threatened by the farming activity. Note 1: The IUCN Red List uses nine categories for ranking species according to threat, and search results may include species that are not currently threatened. For the purposes of determining compliance with indicator 2.1.3, only the following four IUCN listing categories are included: "vulnerable", "near threatened", "endangered" or "critically endangered". Species in other IUCN categories (e.g. "not evaluated", "data deficient", and "least concern") may be excluded from further analyses. Note 2: If the assessment is conducted by a third-party entity, farms must maintain evidence of that the work was done by suitably qualified professionals (e.g. academic ecologist or environmental consultant).	
		a. Perform above analysis and record all IUCN red listed species and farm-related threats. Alternatively, farms may have a qualified third-party entity conduct the assessment for the presence on the farm of IUCN red listed species.	A. Review the results of the farm's analysis. If the assessment was done by a third party, review credentials of the experts who conducted the assessment. Verify through interviews with relevant stakeholders (e.g. local community, eNGOs, government agency responsible for wildlife protection), in order to cross-check whether endangered species exist in the immediate vicinity of the farm.
		b. Provide a map showing location of the farm (see 1.1.1d) relative to the known distribution of IUCN red-listed species (categories as defined in the indicator) or critical habitats in the area.	B. Review the map and verify that client is aware of IUCN red-listed species (categories as defined in the indicator) or critical habitats located near the farm.
		c. If results from 2.1.3a (above) identify that IUCN Red List species occur within a 5 km radius of the farm (including upstream and receiving waters), provide a documented evaluation of the farm's impacts on such species.	C. Verify that client has performed an evaluation of farm impacts to IUCN Red Listed species (as applicable).
		d. Where the results from 2.1.3c indicate a potential for negative impacts, prepare a set of written and clearly-defined mitigation measures to reduce any negative impacts and allow existence of such species.	D. Confirm that the farm has documented all mitigation measures and verify implementation during the on-site inspection (as applicable).
Criterion 2.2 Riparian buffer zones [8]			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
Footnote	[8] A riparian buffer zone is the land immediately abutting a water body.		

2.2.1	**Indicator:** For new farms installed on land after publication of the ASC Freshwater Trout Standard (or for significant expansions), minimum buffer zone between the farm and an adjacent water body in which there is no farm infrastructure that might impede wildlife's access to the water, except for inflow and outflow systems **Requirement:** ≥ 15 meters from the water's edge [9] **Applicability:** All land-based farms constructed after publication of the ASC Freshwater Trout Standard except as noted in [9]	Note: An exception is made if the farm can demonstrate through a third-party scientific analysis that the farm's structures do not impede animal habitats and corridors and do not present erosion risks [9].	
		a. Inform the CAB of the date when farm installation was originally completed and any farm expansions thereafter (also see 2.1.2a).	A. Review evidence for date of farm installation and expansions.
		b. If farm installation was completed before publication of the ASC Freshwater Trout Standard, then indicator 2.2.1 does not apply. Otherwise proceed to 2.2.1c.	B. Determine whether Indicator 2.2.1 is applicable to the farm.
		c. Prepare a diagram of the farm showing the siting and dimensions of buffer zones between the farm and adjacent water body.	C. Review diagram to verify that siting of buffer zones is appropriate and that the farm does not impede wildlife's access to the water.
		d. Ensure that buffer zones are free of farm infrastructure (rescue and safety equipment is allowed as appropriate to ensure worker health and welfare).	D. During the on-site visit, inspect buffer zones to verify appropriate siting and dimensions.
Footnote	[9] An exception is made if the farm can demonstrate through a third-party scientific analysis that the farm's structures do not impede animal habitats and corridors and do not present erosion risks.		
Criterion 2.3 Introduction of exotic species [10]			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
Footnote	[10] The ASC Freshwater Trout Standard defines "exotic species" as non-native animals living in areas outside their native boundaries.		
2.3.1	**Indicator:** New introductions of exotic trout after the date of publication of the ASC Freshwater Trout Standard, unless in a closed production system [11] **Requirement:** None **Applicability:** All except closed production systems	**Instruction to Clients for Indicator 2.3.1 - New Introductions of Exotic Trout** The ASC Freshwater Trout Standard seeks to discourage the introduction of trout into waterways where these species are not native or not previously established. For the purposes of Indicator 2.3.1, a species is not considered exotic if it can be shown that the species is native to the area of farm operation or if it can be shown that the species was established in the area of the farm prior to publication of the ASC Freshwater Trout Standard. Note: Indicator 2.3.1 does not apply to farms that operate closed production systems. A closed production system is defined as a facility with recirculating water that is separated from the wild aquatic medium by effective physical barriers that are in place and well maintained to ensure no escapes of reared specimens or biological material that might survive and subsequently reproduce [11]	
		a. Inform the CAB if the farm uses a closed production system according to the above definition (indicator 2.3.1 does not apply). Otherwise, proceed to 2.3.1b.	A. Determine which type of culture system is used by the farm. If closed, then 2.3.1 does not apply (response "n/a"). Otherwise, proceed to 2.3.1B.
		b. Inform the CAB which trout species is being cultured at the farm and maintain purchase records (e.g. receipts) that identify the species by Latin name.	B. Confirm which species of trout is cultured at the farm.
		c. Compile available primary literature (e.g. scientific studies, government publications) to determine whether or not the cultured species is generally considered to be native to the region in which the farm operates.	C. Review the literature to determine if the cultured species is generally considered native to the area. If yes, then 2.3.1 does not apply (response "n/a"). Otherwise, proceed to 2.3.1D.
		d. If the species is considered non-native but was previously established in the area (i.e. if it is an introduced species), search the literature for a reliable estimate of the year of introduction.	D. If the species is not considered native to the area, review available information to determine if it was introduced and had self-sustaining population established in the wild before publication of the ASC Freshwater Trout Standard (7 February 2013). If yes, then 2.3.1 does not apply (response "n/a"). Otherwise, proceed to 2.3.1E.
		-	E. Inform the client that the proposed culture stock is considered an 'exotic trout' under the ASC Freshwater Trout Standard and therefore the farm is ineligible for certification.
Footnote	[11] A closed production system is defined as a facility with recirculating water that is separated from the wild aquatic medium by effective physical barriers that are in place and well maintained to ensure no escapes of reared specimens or biological material that might survive and subsequently reproduce.		
Criterion 2.4 Transgenic [12] Trout			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
Footnote	[12] Transgenic trout: A subset of genetically modified organisms, which are organisms that have inserted DNA that originated in a different species. Some GMOs contain no DNA from other species and, therefore, are not transgenic but cisgenic.		

2.4.1	**Indicator**: Allowance for the culture of transgenic trout, including the offspring of genetically engineered trout **Requirement:** None **Applicability:** All	**Instruction to Clients for Indicator 2.4.1 - Culture of Transgenic vs. Genetically Modified Trout** Under Indicator 2.4.1, farms which culture transgenic trout are ineligible for certification. Therefore it is important to be clear about the definitions adopted by the FTAD Steering Committee. Transgenic Trout: A subset of genetically modified organisms (GMOs), which are organisms that have inserted DNA that originated in a different species. Some GMOs contain no DNA from other species and, therefore, are not transgenic but cisgenic [12]. Genetic enhancement: The process of genetic improvement via selective breeding that can result in better growth performance and domestication but does not involve the insertion of any foreign genes into the genome of the animal [13]. Under the ASC Freshwater Trout Standard, the culture of genetically enhanced trout stocks is allowed. The culture of transgenic and cisgenic trout stocks is not allowed. Note: In countries where transgenic trout are not allowed by law, a statement from the authorities to confirm this is sufficient to show compliance with Indicator 2.4.1.	
		a. Maintain records for the origin of all cultured stocks including the supplier name, address and contact person(s) for stock purchases.	A. Review records to confirm compliance with the requirement.
		b. Ensure purchase documents confirm that the culture stock is not transgenic.	B. If the auditor suspects that transgenic fish are in culture, add condition that the farm must have stock identity tested by collecting randomly 3 fish from each stocked tank/cage for genetic analysis at an ISO 17025 certified laboratory. An exception is made for countries in which (local) governments provides official statements for non-allowance of transgenic fish.
Footnote	[13] Genetic enhancement: The process of genetic improvement via selective breeding that can result in better growth performance and domestication but does not involve the insertion of any foreign genes into the genome of the animal.		
Criterion 2.5 Escapes from culture facilities			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
2.5.1	**Indicator**: Evidence of a well-designed, maintained and managed culture system, infrastructure and farm management to prevent escapes during grow-out and at harvest, as demonstrated through the requirements in Appendix IV **Requirement:** Yes **Applicability:** All except closed production systems	a. Ensure that farm procedures (see 2.5.2a) address all the farm measures for escape prevention given in Appendix IV. Align farm procedures against requirements in Appendix IV.	A. Review the list showing how farm's SOP's meet all requirements given in Appendix IV.
		b. Ensure proper maintenance of the culture system and infrastructure to prevent escapes during grow-out and harvest.	B. During the initial on-site visit, inspect the culture system to verify proper maintenance of nets, screens and barriers.
		c. For initial audits, arrange for the auditor to witness the farm's method of harvesting during the on-site visit.	C. During the initial on-site visit, observe how the farm harvests fish to verify effectiveness of escape prevention measures.
2.5.2	**Indicator**: Presence of trout farming standard operating procedures (SOP) that incorporate an escape risk assessment [14] **Requirement:** Yes **Applicability:** All	a. Prepare a written SOP that incorporates an escape risk assessment (see 2.5.1a). For farms that operate closed production systems, SOPs do not need to incorporate an escape risk assessment.	A. Review the farm's SOP to confirm it includes an escape risk assessment. Include a synopsis in auditing report (e.g. contents table of SOP) for future standadization of "risk assessment" requirements by ASC or standards setting group.
		b. Ensure that the SOP is implemented on the farm.	B. During the on-site visit, confirm that the SOP is implemented by direct inspection and through interviews with key staff.
Footnote	[14] SOP must clearly define the correct procedures for each aspect of farm operation, identify the risks involved and define mitigation procedures for prevention of escapes.		
2.5.3	**Indicator**: Evidence of farm staff capacities and capabilities, including training of staff prior to starting work and regular training during employment to understand and address risks from escapes and follow the defined SOP **Requirement:** Yes **Applicability:** All except closed production systems	a. In the SOP for reducing escapes (see 2.5.2a), provide a description of how the farm ensures adequate staff capacity to address risks from escapes.	A. Review SOP to verify that farm addresses staffing capacity needs in order to reduce escapes.
		b. Maintain documentary records (e.g. minutes, attendance sheets) from regular staff trainings on escape prevention procedures.	B. Review records to verify that the farm regularly provides its employees with introductory or continuing training on escape prevention procedures.
		-	C. During the on-site visit, conduct interviews with responsible staff to confirm that training sessions are held regularly (i.e. ≥ annually) and workers are aware of risks.

2.5.4	**Indicator**: Estimated unexplained loss [15] of farmed trout in net pens is made publicly available **Requirement:** Yes **Applicability:** All	**Instruction to Clients for Indicator 2.5.4 - Calculation of Estimated Unexplained Loss** The Estimated Unexplained Loss (EUL) of fish is calculated at the end of each production cycle as follows [15]: EUL = (stocking count) - (harvest count) - (mortalities) - (recorded escapes) Units for input variables are number of fish (i.e. counts) per complete production cycle.	
		a. For each production cycle, maintain detailed records of the following: - stocking count; - harvest count; - mortalities; and - recorded escapes.	A. Review records for completeness.
		b. Calculate the estimated unexplained loss as described in the instructions (above) for the most recent full production cycle. For first audit, farm must demonstrate understanding of calculation and the requirement to disclose EUL after harvest of the current cycle.	B. Verify that the farm calculates estimated unexplained losses correctly according using the formula for EUL presented above.
		c. Make the results from 2.5.4b publicly available (e.g. by publishing information on the farm's website). Keep records of when and where the results were made public for all production cycles.	C. Verify that the farm makes the information available to the public and describe the means of access in the audit report.
Footnote	[15] Calculated as: Unexplained loss = Stocking count - harvest count - mortalities - other known escapes.		
2.5.5	**Indicator**: All fish in net pens are counted during each grading **Requirement:** Yes **Applicability:** All	a. Prepare a written procedure for grading which describes the frequency and methodology for obtaining counts.	A. Review the farm's procedure for grading.
		b. Keep records of counts obtained at each grading.	B. Review records and ask producer to trace back a logical unit from harvest to stocking, showing when grading occurred.
Criterion 2.6 Predator control [16]			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
Footnote	[16] Excluding "vermin" as defined in the local jurisdiction.		
2.6.1	**Indicator**: Intentional use of lethal predator control **Requirement:** None [17] **Applicability:** All except as noted in [17]	**Instruction to Clients for Indicator 2.6.1 - Exception to Prohibition on Use of Lethal Predator Control** The requirements of Indicator 2.6.1 prohibit farms from using lethal control measures to manage predators. Management of predators shall be through non-lethal methods only. To ensure compliance with Indicator 2.6.1, farms must provide a detailed description of the predator control measures used at the site. In certain limited and well-justified circumstances, the CAB may permit an exception to requirements of Indicator 2.6.1. Specifically, an exception may be granted in situations where the farm can provide evidence of an assessment that demonstrates lethal action against a particular predator is appropriate, necessary and presents no risks to wild populations or ecosystems. The assessment must come from an Environmental Impact Assessment (EIA) or any other credible process of environmental analysis. If the CAB determines that a farm should be allowed an exception to 2.6.1, the CAB shall reproduce the written justification by the producer in the audit report. This exception cannot be applied to species that are vulnerable, endangered or critically endangered [20] as defined by local or national legislation. Similarly, this exception cannot be applied to IUCN red listed species identified as threatened under Indicator 2.1.3.	
		a. Prepare a list of all predator control devices used on the farm and their locations.	A. Review list and confirm device locations and working condition during the on-site inspection.
		b. Provide a description of farm procedures for managing predators (e.g. in the SOP identified in 2.5.2) which explains how the farm ensures that all actions are non-lethal.	B. Verify that the farm's predator control procedures are implemented and that there is no evidence the control measures are lethal.
Footnote	[17] The ASC Freshwater Trout Standard permits an exception to the prohibition on lethal action in situations where the farm can provide evidence of an assessment that demonstrates lethal action against a particular predator is appropriate, necessary and presents no risks to wild populations or ecosystems. This exception cannot be applied to species that are threatened, endangered or critically endangered. The assessment must come from an EIA or any other credible process of environmental analysis.		
PRINCIPLE 3: MINIMIZE NEGATIVE EFFECT ON WATER RESOURCES			

Criterion 3.1 Water Use/Abstraction Levels			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
3.1.1	**Indicator**: Maximum amount of water that a farm can abstract from a natural flowing water body (such as a river or stream) **Requirement:** 50% of the natural water body's flow immediately above the farm [18] **Applicability:** All farms utilizing surface water (such as water from a river) except as noted in [18]	**Instruction to Clients for Indicator 3.1.1 - Exemptions from Meeting the Maxima for Water Abstraction** Indicator 3.1.1 requires that farms abstract no more than half of the water from a natural flowing water body as determined on at least an annual basis. In implementing this requirement, the ASC recognizes a need for farms and auditors to remain flexible. It may be challenging to evaluate some water ways because of complex flow patterns (e.g. seasonal changes) or because the waterways themselves are highly modified from a natural state (e.g. some of the centuries-old channels in Europe). In such cases, operators should provide the CAB with sufficient background information to show how the farm's water abstraction volume is consistent with meeting the intent of the requirement. Where local authority or scientific study has established a minimum vital water flow for the water body, farms should respect these minima. Therefore the ASC allows two exemptions to 3.1.1: Exeption #1: Farms are exempt if they demonstrate that their jurisdiction of operation regulates water abstraction based on a minimum vital water flow for the natural water body. Farms must provide documentary evidence to show that water use complies with regulatory requirements for minimum vital flow. Exeption #2: Farms are exempt if they demonstrate that abstraction amounts respect the limits determined by a scientific study which has estimated minimum vital flow. Farms must provide documentary evidence to show how their water usage is consistent with maintaining the minima set by scientific study.	
		a. Inform the CAB if the farm seeks an exemption to 3.1.1. and provide supporting evidence (see Instructions). Otherwise, proceed to 3.1.1b.	A. If the farm seeks an exemption, review evidence for compliance with regulatory or scientifically-derived water flow minima and provide a synopsis in the audit report. Otherwise, proceed to 3.1.1B.
		b. Maintain records of all water abstracted by the farm and use these values to calculate the total volume of water abstracted on an annual basis.	B. Confirm that the farm maintains records of water abstraction and that calculations are accurate for annual volume of water abstracted.
		c. Provide the CAB with reliable estimates of water flow immediately above the farm (e.g. scientific studies, government publications). Use these values to calulate the total volume of water flow on an annual basis.	C. Confirm that the farm has access to reliable estimates for water flow immediately above the farm and that caclulations are accurate for annual volume of water flow immediately above the farm.
		d. Use the results of 3.1.1b divided by 3.1.1c multiplied by 100 to determine the percent abstraction of the natural water body's flow.	D. Review data to verify that the volume of water abstracted does not exceed 50% of the natural water body's flow immediately above the farm during any month of the year. One annual measurement at point of lowest flow rate period to demonstrate less than 50% water abstraction. The farmer is required to demonstrate historical statistics of what period is defined as "low flow rate".
Footnote	[18] Farms will be exempted from this requirement if they can demonstrate that they are in a jurisdiction that regulates the farm's water abstraction based on a minimum vital water flow for the natural water body, and the farm's water use respects that minimum vital flow. Farms would also be exempt if they can demonstrate abstraction amounts respect limits determined by a scientific study that estimates minimum vital flow.		
3.1.2	**Indicator**: Demonstration that >90% abstracted water is returned to the natural water body **Requirement:** Yes **Applicability:** All farms utilizing surface water (such as water from a river)	a. Retain records to show how the farm ensures that > 90% of abstracted water is returned to the natural water body.	A. Review farm records for completeness.
		-	B. During the on-site visit, inspect the water intake and discharge areas to confirm that the farm has means of estimating returned water volume.
3.1.3	**Indicator**: All use of underground pumped water has been permitted by regulatory authorities **Requirement:** Yes **Applicability:** All farms utilizing groundwater (such as water from a well)	**Instruction to Clients for Indicator 3.1.3 - Distinction between Surface Water and Underground Pumped Water** For the purposes of showing compliance with Indicator 3.1.3, it is necessary to make a distinction between "surface water" and "underground pumped water." Surface water is defined as "water collecting on the ground or in a stream, river, lake, wetland or ocean. Groundwater is defined as "water beneath the earth's surface that supplies wells and springs". A spring is a location where ground water comes to the surface. Once spring water is flowing naturally across the ground surface, it is no longer ground water but is considered surface water. Note: the term "surface water" is used here in place of the original term "surficial water" that appeared in the PAD Standard.	
		a. Identify any use of underground pumped water by the farm and include in the farm map or diagram (see 1.1.1d and 2.1.1a).	A. Verify whether the farm uses underground pumped water or not and record this in the audit report.
		b. Obtain permits from regulatory authorities.	B. Confirm that the farm has permits for all pumped water (as applicable).

		-	C. During the on-site visit, inspect groundwater sources (as applicable).
3.1.4	**Indicator**: Well depths are tested at least annually, and results made publicly available [19] **Requirement:** Yes **Applicability:** All farms utilizing groundwater (such as water from a well)	a. Ensure that well tests are conducted at a similar time each year [19] using an appropriate methodology.	A. Review evidence to verify that the farm has wells tested at a similar time each year using an appropriate methodology.
		b. Maintain records of results from all tests of well depth.	B. Confirm that the farm maintains results from tests of well depth.
		c. Make the results from 3.1.4b available publicly (e.g. by posting on the farm's website). Keep records of when and where results were made public.	C. Verify that the farm makes the information from 3.1.4b available to the public and record the testing results in the audit report (public section).
Footnote	[19] Well depths must be tested at similar times of the year, with results submitted to ASC. More detailed methodology will be provided in the Auditing Guidance document.		
Criterion 3.2 Land-based systems—Water Quality/Effluent			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
3.2.1	**Indicator:** Maximum total amount of phosphorus released into the environment per metric ton (mt) of fish produced over a 12-month period (see methodology in Appendix II-A) **Requirement:** 5 kg/mt of fish produced over a 12-month period; within three years of publication of the ASC Freshwater Trout Standard (from 7 February 2013 to 7 February 2016), 4 kg/mt of fish produced over a 12-month period (after 7 February 2016) **Applicability:** All land-based systems	**Instruction to Clients for Indicator 3.2.1 - Calculating Total Phosphorus Released per Ton of Fish Produced** Farms must demonstrate compliance with the requirement of Indicator 3.2.1 which specifies the maximum amount of phosphorus that a producer can release into the environment per metric ton (mt) of fish produced over a 12-month period. The requirement is set at 5 kg/mt for the first three years from date of publication of the ASC Freshwater Trout Standard (i.e. from 7 February 2013 until 7 February 2016), dropping to 4 kg/mt thereafter. The calculation of total phosphorus released is made using a "mass balance" approach. Detailed instructions and formulas are given in Appendix II-A. If applicable, farms may take account of any physical removals of phosphorus in the form of sludge provided there is evidence to show: - the farm has records showing the total quantity of sludge removed from site over the relevant time period; - the farm determined phosphorus concentration (% P) in removed sludge by sampling and analyzing representative batches; and - the sludge was properly disposed off site and in accordance with the farm's biosolid (sludge) management plan.	
		a. Maintain records showing the amount and type of feeds used during the past 12 months.	A. Verify that farm has records for feeds used over the relevant time period.
		b. For all feeds used (result from 3.2.1a), keep records showing phosphorus content as determined by chemical analysis or based on feed supplier declaration (Appendix II-A).	B. Verify that farm has records showing the phosphorus content in feeds.
		c. Using equation #1 from Appendix II-A and results from 3.2.1a and b, calculate the total amount of phosphorus added as feed during the last 12 months of production.	C. Confirm that calculations are done according to Appendix II-A.
		d. Maintain records for stocking, harvest and mortality which are sufficient to calculate the amount of biomass produced (equation #2 in Appendix II-A) during the past 12 months.	D. Verify that the farm maintained all records needed to calculate the amount of biomass produced during the past 12 months.
		e. Calculate the amount of phosphorus in fish biomass produced (result from 3.2.1d) using equation #3 in Appendix II-A.	E. Confirm that P-content calculations are done according to Appendix II-A.
		f. If applicable, maintain records showing the total amount of P removed as sludge (equation #4 in Appendix II-A) during the past 12 months.	F. As applicable, verify records showing how the farm determined the amount of phosphorus removed from the system as sludge.
		g. Using the formula in Appendix II-A and results from 3.2.1a-f (above), calculate total phosphorus released per ton of fish produced.	G. Review calculations to confirm that the farm does not exceed requirements for total amount of phosphorus released.
3.2.2	**Indicator**: Minimum oxygen saturation in the outflow, measured monthly (see methodology in Appendix II-B) **Requirement:** 60% [20]	**Instruction to Clients for Indicator 3.2.2 - Oxygen Saturation in the Outflow** Requirements for measuring oxygen saturation are given in Appendix II-B. Take DO measurements at the outlet where water is discharged (i.e. measure DO in the actual outflow, not in the receiving water. For farms using a water treatment system this could be the water in the final part of the treatment system before being discharged). Each month, determine percent oxygen saturation from two data series: one taken in the early morning and another one taken in the late afternoon (does not need to be daily). If a single oxygen reading is below 60 percent, the farm would need to demonstrate daily continuous monitoring with an electronic probe and recorder for at least a week with a minimum 60 percent saturation at all times.	
		a. Provide monthly monitoring records of DO percent saturation in outlfow water for the previous 12 months. For first audits, farm records must cover ≥ 6 months.	A. Review DO dataset to confirm that monitoring covers the required timeframe and that DO was ≥ 60% for each monthly water sample.

	Applicability: All land-based systems	b. If any single value from 3.2.2a is < 60%, initiate daily continuous DO monitoring with an electronic probe and recorder for > 1 week. Maintain a record of the results.	B. If applicable (see results from 3.2.2a), review the farm's results from daily continuous monitoring to verify that DO saturation in the outflow was ≥ 60% at all times for at least one week.
		c. During the on site visit, make arrangements for the auditor to observe calibration of equipment and measurements.	C. During the on-site visit, observe how the farm calibrates equipment and takes DO measurements (or takes samples for chemical analysis) to confirm compliance.
Footnote	[20] If a single oxygen reading is below 60 percent, the farm would need to demonstrate daily continuous monitoring with an electronic probe and recorder for at least a week with a minimum 60 percent saturation at all times.		
3.2.3	**Indicator**: Macroinvertebrate surveys downstream from the farm's effluent discharge demonstrate benthic health that is similar to or better than surveys upstream from the discharge (see methodology in Appendix II-C) **Requirement:** Yes **Applicability:** All land-based systems	**Instruction to Clients for Indicator 3.2.3 - Macroinvertebrate Surveys** A detailed description of the methodology for the macroinvertebrate survey is given in Appendix II-C of the ASC Freshwater Trout Standard. Farms may undertake the surveys themselves or contract to have the surveys completed by a competent external party. In either case, all requirements of the methodology shall be fulfilled including anlaysis of samples by an accredited laboratory that has approved the sampling methodology. Macroinvertebrate surveys must be conducted once every 12 months (i.e. annual sampling) with two exceptions. First, in situations where the downstream survey drops a category according to the benthic health status between two consecutive surveys, the farm must perform two surveys during the following 12 month period (i.e. bi-annual sampling) using the same faunal system, that demonstrate compliance with the Standard. Second, in situations where downstream and upstream benthic health status is consistent for 3 years or more, the farm may perform sampling every 24 months (i.e. semi-annual sampling). When survey results indicate that the health of downstream benthic communities is worse than upstream but there is reason to suspect that farm effluent was not the cause, the farm may seek an exemption from the CAB. In such cases, an exemption may only be awarded if it can be shown that the observed health of downstream benthic communities is consistent with minimum health levels set by competent authority (e.g. a government agency) as established through scientific analyses. For any such exceptions, the auditor shall fully document in the audit report how the results of the farm's benthic surveys are consistent with the intent and rigor of the ASC Freshwater Trout Standard.	
		a. Have a scientific assessment done in the area downstream of the outlet to identify the zone most likely to be impacted by farm discharge. This assessment must consider water mixing and distance from farm outlet.	A. Confirm that the farm used the results from a scientific assessment to determine the location of downstream sampling.
		b. Prepare a map showing the upstream and downstream transects and sampling stations used for macroinvertebrate surveys (see Appendix II-C).	B. Review map to verify appropriate siting of sampling stations relative to the scientific assessment (see 3.2.3a) and in compliance with Appendix II-C.
		c. Collect benthic samples along transects in accordance with Appendix II-C and maintain records of all sample collections.	C. Confirm that the sample collection followed Appendix II-C.
		d. Have an accredited laboratory analyze the samples for benthic invertebrate fauna including characterization of species composition, abundance, diversity, and presence of key sensitive indicator species.	D. Confirm that the laboratory used by the farm is accredited for analyses of benthic samples. Review the laboratory results to confirm that the samples of benthic fauna were characterized as required.
		e. Using survey results from 3.2.3d, compare the benthic health of areas downstream from the discharge to those areas upstream of the discharge to assure no change.	E. Review the farm's comparison of upstream and downstream benthic health to confirm that the farm's conclusions are directly supported by objective evidence from benthic surveys. Verify that surveys show compliance with the requirement.
		-	F. Compare upstream and downstream benthic health over time to determine future surveillance ferquency (see instructions).
3.2.4	**Indicator**: Evidence of implementation of biosolids (sludge); Best Management Practices (BMPs) (see Appendix II-D) **Requirement:** Yes **Applicability:** All land-based systems	Note: Detailed description of the biosolids (sludge) Best Management Practices is given in Appendix II-D of the ASC Freshwater Trout Standard.	
		a. Prepare a biosolids (sludge) management plan that addresses all requirements in Appendix II-D.	A. Review the farm's biosolids (sludge) management plan for compliance with Appendix II-D.
		b. Prepare a process flow diagram of the key steps taken to responsibly manage sludge identifying treatment, transfer, storage, utilization and disposal.	B. Evaluate the flow diagram to confirm it covers all steps (e.g. cleaning routines of pipes, sumps, channels and units).
		c. Maintain records of biosolid (sludge) cleaning, maintenance, and disposal as described in Appendix II-D.	C. Review the farm's records to verify there is evidence of implementation of biosolids management as required in Appendix II-D.
		-	D. During the on site visit, inspect the farm and conduct community interviews to verify there is no evidence for discharge of biosolids into natural water bodies.

3.2.5	**Indicator**: Water-quality monitoring matrix completed and submitted to ASC (see Appendix II-B) **Requirement:** Yes **Applicability:** All land-based systems	**Instruction to Clients for Indicator 3.2.5 - Water Quality Monitoring Matrix, Land-Based Systems** Land-based farms are required to monitor a 'matrix' of four water quality parameters shown in Appendix II-B of the ASC Freshwater Trout Standard: total phosphorus (TP); total nitrogen (TN); biological oxygen demand (BOD); and Total Suspended Solids (TSS). Monitoring of these four parameters represents a minimum level of compliance. They are in addition to any other parameters that may be required by local regulatory authorities. The ASC Freshwater Trout Standard does not prescribe details of the sampling methodology (i.e. spatial distribution of sites, temporal distribution of sample collection). Therefore, where such programs are not dictated by local regulation, farms may use their own discretion to design a water quality monitoring program that is suited to the specific objectives of the farm site. However theASC encourages farms to consider the following factors when designing a water quality monitoring program: - comparison of differences in water quality between inflow and outflow (i.e. an upstream vs. downstream approach); - influence of seasonality (e.g. sampling should be done at least monthly to identify seasonal patterns); - sampling from multiple stations to investigate waterbody dynamics; - consistency of sampling position (e.g. water samples are taken from a 1-meter column of water or deeper); - uniform time of sample collection (e.g. all samples taken 2 hours before sunset); and - inclusion of additional parameters that are of direct relevance to the farm operation (e.g. temperature, salinity, flow rate, etc). Note 1: Under Indicator 3.2.2, farms are required to monitoring dissolved oxygen (DO) concentration. Farms may choose to include DO as one of the parameters that is routinely sampled as part of their water quality monitoring program however this is not a requirement. Note 2: Farms may perform the analyses of water quality parameters on site or they may go to suitably qualified independent laboratories. If analyses are done on site, the SC recommends that farms periodically send water samples to an independent laboratory to assure that farm analyses are within a 5% level of error. However, the SC has not specified a requirement for number of samples or frequency of validation testing. If farms hire an independent accredited laboratory to do water quality sampling and testing, the farm is still responsible for ensuring that all specified water quality parameters (Appendix II-B) are monitored on at least a monthly basis and reported to ASC at least annually. However the requirements for calibration (3.2.5c) and shipping (3.2.5d) do not apply. Suggest matching with SAD if there is this requirement.	
		a. Conduct ≥ 6 months of water quality monitoring before first audit. Thereafter, monitoring should be part of production practices for certified farms.	A. Do not schedule the on-site audit until client has monitoring dataset.
		b.Complete the Water Quality Monitoring Matrix (Appendix II-B) and submit to CAB.	B. Review Matrix to verify that client monitored all four required parameters at the required frequency.
		c. Calibrate all equipment at the frequency and by the method recommended by the manufacturer. Calibrate daily if there is no manufacturer's recommendation.	C. Verify that client calibrates equipment as required.
		d. During the audit of the farm, arrange to conduct water quality monitoring. The auditor will witness water sampling.	D. Witness the client conducting water quality monitoring.
		e. Collect water samples and prepare them for shipment to a laboratory (if applicable).	E. Witness the farm collecting water samples or (if applicable) preparing samples to send to an independent laboratory.
		f. Perform routine analysis of water samples (i.e. done in the same manner as for previous months of water quality monitoring).	F. Witness the farm's analyses of water samples or (if applicable) review evidence that the independent laboratory is suitably qualified to perform analyses.
		g. Record values for each parameter and submit results to CAB.	G.Review the recorded values and examine consistency with the farm's previous results for water quality monitoring.
		h. Submit data on water quality monitoring to ASC in a suitable format (required parameters are shown in Appendix II-B) at least once per year.	H. Confirm that client has submitted data on water quality to ASC (Appendix II-B).
Criterion 3.3 Cage-Based Systems—Water Quality/Benthic Community			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
	Indicator: For cages located on water bodies with a surface area less than 1,000 km^2, evidence that farm production levels reflect the results of an assimilative capacity study (see Appendix II-E)	**Instruction to Clients for Indicator 3.3.1 and 3.3.2 - Classification of Surface Area of Water Body** Under Indicators 3.3.1 and 3.3.2, farms using cages must specify whether the water body in which they operate has a surface area greater than or less than 1,000 km^2. Farms may classify the water body using reliable published data (scientific papers, government publications) or farms may perform a spatial analysis using GIS or similar method to estimate surface area of the water body. Farms should provide the CAB with information on water body surface area and associated calculations, prior to the first audit.	
		a. Determine the surface area of the water body where the farm operates (see Instructions above).	A. Review data to confirm that it comes from an accurate and reliable source.

3.3.1	**Requirement:** Yes **Applicability:** Cage-based systems operating on water bodies with a surface area < 1000 km^2	b. Inform the CAB if results from 3.3.1a indicate that the water body is less than 1,000 km^2 surface area and proceed to 3.3.1c. Otherwise, go to 3.3.2.	B. Review the information used by the farm (see Instructions above) to verify that the farm has correctly assigned the water body to a size class. If the water body is ≥ 1,000 km^2 then Indicator 3.3.1 does not apply.
		c. Obtain a documentated assimilative capacity study for the water body where the farm operates. The assimilative capacity study must address all requirements described in Appendix II-E.	C. Review the assimilative capacity study to verify it meets the requirments of Appendix II-E (e.g. appropriateness of model used, scope of investigation, and analyses performed).
		d. Provide evidence that the farm production levels reflect the results of the assimilative capacity study in 3.3.1c.	D. Review the conclusions presented in 3.3.1c to verify that loading from farm production levels does not exceed water body capacity to assimilate.
3.3.2	**Indicator**: For cages located on water bodies with a surface area of 1,000 km^2 or greater, evidence that cages are located at sites that are classified as "Type 3" sites, as defined in Appendix II-F **Requirement:** Yes **Applicability:** Cage-based systems operating on water bodies with a surface area ≥ 1000 km^2	**Instruction to Clients for Indicator 3.3.2 - Water Body Classifications as Type 1, Type 2 or Type 3** Under Indicator 3.3.2, farms operating on water bodies with a surface area ≥ 1,000 km^2 are required to show evidence that cages are located at sites that are classified as "Type 3" using the method described in Appendix II-F. Where a regulatory agency has previously used the required method to classify the site, the farm will use the regulator's classification. In situations where the water body has not previously been classified by regulators according to the required classification system, the farm shall contract an independent consultant to perform the classification as described and provide a detailed analysis to support that determination (see Appendix II-F). Independent consultants shall have an advanced degree, a minimum of 5 years of experience in limnology and environmental assessments, and a broad understanding of environmental impacts of aquaculture operations on freshwater habitats. Classifications should follow the method of Boyd et al. 2001 and results shall be documented in a report which provides a detailed analysis to support the determination. Boyd, D., M. Wilson, and T. Howell (2001) Recommendations for Operational Water Quality Monitoring at Cage Culture Aquaculture Operations Environmental Monitoring and Reporting Branch, Ontario Ministry of Environment.	
		a. Determine the surface area of the water body where the farm operates (see 3.3.1a). If the surface area is 1,000 km^2 or greater, proceed to 3.3.2b. Otherwise, go to 3.3.1	A. Review the information used by the farm (see 3.3.1A and 3.3.1B) to verify that the farm has correctly assigned the water body to a size class. If the water body is < 1,000 km^2 then Indicator 3.3.2 does not apply.
		b. Provide evidence that the water body classification was performed by a regulatory agency as required under Appendix II-F. If no regulatory agency has classified the water body, proceed to 3.3.2c.	B. Review the evidence from the regulatory agency to confirm that the site is classified as "Type 3" according to the required methodology (if applicable).
		c. If applicable, hire a qualified independent consultant to analyze and classify the site where the farm operates in accordance with the definitions in Appendix II-F.	C. As applicable, verify that the consultant was suitably qualified and provided a detailed analysis to support the determination.
		-	D. Confirm that actual cage locations are at sites classified as Type 3.

3.3.3	**Indicator**: Water quality monitoring matrix completed (see Appendix II-G) **Requirement:** Yes **Applicability:** All cage-based systems	**Instruction to Clients for Indicator 3.3.3 - Water Quality Monitoring, Cage-Based Systems** Farms using cage-based systems are required to monitor two water quality parameters as shown in Appendix II-G of the ASC Freshwater Trout Standard: total phosphorus (TP) and Dissolved Oxygen (DO). Monitoring of these two parameters represents a minimum level of compliance. They are <u>in addition to</u> any other parameters that may be required by local regulatory authorities (Note 1). The ASC Freshwater Trout Standard requires that water quality monitoring is conducted at a minimum of seven (7) sampling stations. There are four 'boundary' stations which are established at the limit of the farm's management zone, roughly 50 m from the edge of cages. Boundary stations should be arranged to the North, South, East and West or in a comparable spatial distribution (if the farm is attached to land on one side, then the station from that side would be removed). There are also two 'reference' stations which are established approximately 1-2 km upcurrent and downcurrent of the farm. Lastly, there is a 'pristine station' used for measuring changes in TP concentration against a baseline (see Indicator 3.3.4 below). The pristine station should be located in an area of the water body which is far removed from point discharge sources, stream inflows, aquaculture activities and anthropogenic impacts. All seven sampling stations shall be identified with GPS coordinates on a schematic map of the farm. Samples must be taken at least once every three months (i.e. quarterly) during periods without ice (Note 2). Water samples for TP shall be collected from a representative composite water column to a depth of the bottom of the cages. The SC does not specify the number, volume or depth of individual 'grab' samples that are composited to make a representative sample of the water column. Farms should design a water sampling program to suit the specific arrangement of cages in the waterbody. For example, a hypothetical sampling design might involve compositing three grab samples from each station, with individual grabs taken at cage bottom depth (2.0 m), middle cage depth (1.0 m) and near surface (0.2 m). TP concentration of water samples shall be analyzed by an accredited laboratory or using a method with a detection limit of ≤ 0.002 mg/l. DO measurements shall be taken at 50 cm (0.5m) from the bottom sediment (or at a depth of 25 m where sampling at greater depths is impractical). Note 1: The ASC encourages farms to consider additional factors (see Instructionsfor Indicator 3.2.5) when designing a water quality monitoring program. Note 2: If local regulatory authorities prescribe a specific sampling regime, farms should inform the CAB. Some flexibility may be allowed by qualitied team members, as to the exact location and method of sampling in order to avoid duplication of sampling efforts.	
		a. Conduct ≥ 6 months of water quality monitoring before first audit and submit to CAB.	A. Do not schedule the on-site audit until client has monitoring dataset.
		b. Calibrate all equipment at the frequency and by the method recommended by the manufacturer. Calibrate daily if there is no manufacturer's recommendation.	B. Verify that client calibrates equipment as required.
		c. During the audit of the farm, arrange to conduct water quality monitoring at location of auditor's choice.	C. Witness the client conducting water quality monitoring.
		e. Collect water samples at the same location as 3.3.3a and obtain analysis from a water quality laboratory at least once annually.	E. Examine independent analyses performed by an independent laboratory (i.e. not by farm staff) for consistency with farm results for months where duplicate samples taken.
		f.Assure that values from laboratory are consistent with values obtained from laboratory results. If values differ by >5%, demonstrate how equipment has been recalibrated, replaced, or how procedures have been modified.	F. Examine percent error between farm measurements and auditor measurements.Determine whether ammendments made are sufficient. Auditor is at liberty to request a second set of tests to confirm accurate recalibration.
		g. Submit data on water quality monitoring to ASC as per Appendix II-G.	G. Confirm that client has submitted data on water quality to ASC (Appendix II-B).

3.3.4	**Indicator**: Maximum baseline total phosphorus concentration of the water body (see Appendix II-H) **Requirement:** ≤ 20 µg/l [21] **Applicability:** All cage-based systems	**Instruction to Clients for Indicator 3.3.4 - Establishing a Baseline Total Phosphorus Concentration** Indictors 3.3.4, 3.3.6, and 3.3.7 require that the farm has knowledge of a 'baseline' value for total phosphorus (TP) concentration of the water body in which the farm operates. Farms may establish the baseline TP concentration in one of two ways: Option 1 - Adopt a Baseline Set by a Competent Authority For a water body where a baseline total phosphorus concentration has been set by competent authority that is independent of the farm (e.g. regulatory agency, peer reviewed scientific study), the farm shall adopt that value as the baseline TP concentration. Option 2 - Establish a Baseline Using Empirical Evidence For a water body where no authoritative baseline exists, an alternative is for farms to establish a baseline themselves using at least one year of monitoring results for TP concentration. To pursue this second option, farms will follow all relevant requirements for monitoring TP. Data collection requirements are essentially the same as those for routine monitoring of TP concentration (as described under Indicator 3.3.3 and Appendix II-G). The only exception is that establishment of baseline TP concentration is calculated using at least four quarterly samples taken exclusively from the 'pristine' sampling station. For first audits, farms may demonstrate compliance by showing that a reputable authority (e.g. government agency, peer reviewed scientific study) has established a baseline TP concentration for the water body (option 1). Alternately, farms may provide evidence a baseline TP concentration has been established using empirical evidence. exceed ≤ 20 µg/l in the water body of operation. Evidence may derive from a monitoring program operated by the farm itself or a suitably qualified external party.	
		a. Provide CAB with a description of the farm's TP monitoring program (e.g. sampling station, sampling protocol, name of laboratory used).	A. Review farm's description of the TP monitoring program to verify it complies with requirements. Where situations arise with complex modified water bodies (eg: large lakes and/or hydroelectric facilities) resulting in high or variable water depth fluctuations, sites should record with frequent monitoring flow, depth and water quality
		b. Implement monitoring of TP as described in the instructions for Indicator 3.3.3.	B. During on site visit, observe sample collection, processing, and transport or mailing to the laboratory.
		c. Identify the baseline TP concentration of the water body (see Instructions above) and provide the CAB with evidence to show how this value was established.	C. Review the farm's evidence for establishment of a baseline TP concentration and record the value and rationale in the audit report.
		d. Provide monthly TP monitoring data to the CAB as indicated in Appendix II-G	D. Review TP data set for completeness and cross-check against previous monitoring results for consistency.
		-	E. Review TP monitoring records and verify that no quarterly TP concentration is ≥ 20 µg/l.
Footnote	[21] This concentration is equivalent to the upper limit of the Mesotrophic Trophic Status classification as described in Appendix II-H.		
3.3.5	**Indicator**: Minimum percent oxygen saturation of water 50 centimeters above bottom sediment (at all oxygen monitoring locations described in Appendix II-G) **Requirement:** ≥ 50% **Applicability:** All cage-based systems	a. Provide CAB with a description of the farm's oxygen saturation monitoring program (see Indicator 3.3.3).	A. Review farm's description of the oxygen saturation montioring program to verify it complies with requirements.
		b. Implement monitoring of oxygen saturation according to the methods described above.	B. Witness how the farm makes calibrations and takes DO measurements to ensure that testing done as required.
		c. Provide oxygen monitoring data to the CAB.	C. Review the farm's DO data set for completeness and to verify that verify that no monthly value was <50% saturation.
		-	D. If a value of < 50% saturation is detected while on-site, raise a Non-conformance.
3.3.6	**Indicator**: Trophic status classification of water body remains unchanged from baseline (see Appendix II-H) **Requirement:** Yes **Applicability:** All cage-based systems	a. Obtain documentary evidence stating the trophic status of water body if previously set by a competent authority (if applicable). If not, got to 3.3.6.b	A. Verify that farm obtains evidence that the trophic status of the water body has been previously set by a competent authority (as applicable).
		b. If the trophic status of the water body has not previously been classified, use the baseline TP concentration (result from 3.3.4c) to assign a trophic status to the water body according to the table in Appendix II-H.	B. Verify that the farm has correctly assigned trophic status to the water body using baseline TP concentration.
		c. Compare the current trophic status of the water body (results from either 3.3.6a or 3.3.6b) to the trophic status reported in all previous audits. For first audits, this requirement is not applicable.	C. Review the farm's conclusion to verify compliance with the requirement.

3.3.7	**Indicator**: Maximum allowed increase in total phosphorus concentration in lake from baseline **Requirement:** 25% for water bodies with a surface area of less than 1,000 km^2 15% for water bodies with a surface area of 1,000 km^2 or greater **Applicability:** All cage-based systems as specifed according to size of water body in which the farm operates	**Instruction to Clients for Indicator 3.3.7 - Calculation of Percent Increase in TP from Baseline** Indicator 3.3.7 requires that farms calculate the increase in total phosphorus (TP) concentration from a baseline value for the water body in which the farm operates. Farms need to demonstrate twelve months of TP data; and at least six months with defined criteria prior to first-time audit. Farms will use the same 'baseline TP' concentration as determined previously (see above instruction for Indicator 3.3.4) for the water body. Percent change in TP from baseline is calculated as follows: $\Delta TP = [(TP_{Current} - TP_{Baseline})/TP_{Basline}] * 100$ Where: $TP_{Current}$ is the annual average TP concentration (mg/l) as observed over the most recent 12 months; and $TP_{Baseline}$ is the baseline TP concentration (mg/l) as perviously established for the water body.	
		a. Use the result from Indicator 3.3.4 (above) to identify the baseline TP concentration that will be used to calculate percent change from baseline.	A. Verify that the farm has justification for selecting the TP value to serve as the baseline TP concentration for the water body (as was done for 3.3.4).
		b. Use the result from Indicator 3.3.1 and 3.3.2 (above) to identify the size of the water body in which the farm operates.	B. Verify that farm has accurately catergorized the size of the water body.
		c. Use TP monitoring data from the reference station taken over the past 12 months to calculate the current annual average concentration of TP.	C. Verify that farm has accurately calculated the current annual average TP concentration using data from the reference station.
		d. Calculate the difference between 'baseline TP' and the annual average TP concentration over the most recent 12 months according to the instructions given above.	D. Verify that the farm has made accurate calculation of the percentage difference in TP concentration.
		-	E. Confirm that any observed increase in phosphorus concentration falls within the maximum allowed range for the size of water body where the farm operates.
3.3.8	**Indicator:** Maximum total amount of phosphorus released into the environment per metric ton (mt) of fish produced over a 12-month period (see Appendix II-A) **Requirement:** 5 kg/mt of fish produced over a 12-month period; within three years of publication of the ASC Freshwater Trout Standard (from 7 February 2013 to 7 February 2016), 4 kg/mt of fish produced over a 12-month period (after 7 February 2016). **Applicability**: All cage-based systems	**Instruction to Clients for Indicator 3.3.8 - Calculation of Total Phosphorus Released per Ton of Fish Produced** Farms must demonstrate compliance with the requirement of Indicator 3.3.8 which specifies the maximum amount of phosphorus that a producer can release into the environment per metric ton (mt) of fish produced over a 12-month period. The requirement is set at 5 kg/mt for the first three years from date of publication of the ASC Freshwater Trout Standard (i.e. from 7 February 2013 until 7 February 2016), dropping to 4 kg/mt thereafter. The calculation of total phosphorus released is made using a "mass balance" approach. Detailed instructions and formulas are given in Appendix II-A. Sludge removals will reduce the total amount of phosphorus that a farm releases into the environment. When performing the calculation in Appendix II-A, farms may include the weight of P that was removed as sludge if there is evidence to show that: - the farm has records showing the total quantity of sludge removed from site over the relevant time period; - the farm determined phosphorus concentration (% P) in removed sludge by sampling and analyzing representative batches; and - the sludge was properly disposed off site and in accordance with the farm's biosolid (sludge) management plan.	
		a. Maintain records showing the amount and type of feeds used during the past 12 months.	A. Verify that farm has records for feeds used over the relevant time period.
		b. For all feeds used (result from 3.3.8a), keep records showing phosphorus content as determined by chemical analysis or based on feed supplier declaration (Appendix II-A).	B. Verify that farm has records showing the phosphorus content in feeds.
		c. Using equation #1 from Appendix II-A and results from 3.3.8a and b, calculate the total amount of phosphorus added as feed during the last 12 months of production.	C. Confirm that calculations are done according to Appendix II-A.
		d. Maintain records for stocking, harvest and mortality which are sufficient to calculate the amount of biomass produced (equation #2 in Appendix II-A) during the past 12 months. Value taken from 3.2.1.d	D. Verify that the farm maintained all records needed to calculate the amount of biomass produced during the past 12 months.
		e. Calculate the amount of phosphorus in fish biomass produced (result from 3.3.8d) using equation #3 in Appendix II-A.	E. Confirm that P-content/biomass produced calculations are done according to Appendix II-A.
		f. If applicable, maintain records showing the total amount of P removed as sludge (equation #4 in Appendix II-A) during the past 12 months. This compliance criteria valid for flow-through systems but does not apply for cage systems.	F. As applicable, verify records showing how the farm determined the amount of phosphorus removed from the system as sludge. This compliance criteria valid for flow-through systems but does not apply for cage systems.

		g. Using the formula in Appendix II-A and results from 3.3.8a-f (above), calculate total phosphorus released per ton of fish produced.	G. Review calculations to confirm that the farm does not exceed requirements for total amount of phosphorus released.
PRINCIPLE 4: PROACTIVELY MAINTAIN THE HEALTH OF CULTURED FISH AND MINIMIZE THE RISK OF DISEASE TRANSMISSION			
Criterion 4.1 Farm health management			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
4.1.1	**Indicator**: Presence of a site-specific farm health plan that is reviewed at least annually and addresses biosecurity, veterinary health, crisis management and risk assessment **Requirement:** Yes **Applicability:** All	Note: If the farms has a separate crisis management plan to cover food safety issues, that plan may be incorporated by reference into the farm's Farm Health Plan.	
		a. Prepare a Farm Health Plan (FHP) that is site-specific and addresses biosecurity, veterinary health, crisis management, and risk assessment	A. Review the farm health plan to confirm that it adequately addresses each of the relevant requirements.
		b. Ensure that the FHP is reviewed and updated at least annually with signatures by farm management indicating approval.	B. Verify that farm management approves review and update of the FHP at least annually.
		c. Ensure that the farm's designated veterinarian reviews and approves the FHP annually and after each update of the FHP, by signature.	C. Confirm that the farm has paperwork showing signature and date of review by designated veterinarian.
4.1.2	**Indicator**: All fish, at all stages in the life cycle, are sourced from a supply that is of equal or better health status than its own stock **Requirement:** Yes **Applicability:** All	Note: health status metrics should be weighted towards serious conditions, not transitory ones.	
		a. Design a set of health status metrics that can be evaluated at all relevant phases of the life history. Note: metrics for serious health conditions (e.g. symptoms of infectious disease) should outweigh metrics for transitory conditions (e.g. fin abrasions). Have the metrics reviewed and approved by the farm's designated health care professional.	A. Verify that the farm has designed health status metrics which are reasonable and can be evaluated across the life history. Confirm that the metrics were approved by the farm's designated veterinary health care professional.
		b. Ensure that the farm's designated health care professional samples fish on-site during an annual inspection and maintains records of conditions using metrics defined by 4.1.2a.	B. Examine the farm's record of conditions from annual inspection by the farm's designated health care professional.
		c. Ensure that the samples of health condition (from 4.1.2b) are taken from all of the main cohorts in production during each health status inspection .	C. Ensure records of evaluations are taken from all main cohorts in production at the time of the veterinary health care professional's inspection.
		d. Prior to accepting a transfer of fish (whether the transfer is internal or external), ensure that the supplier has evaluated fish using the farm's health status metrics in 4.1.2a. Farm's may also use evidence from statutory evaluations (e.g. health certificates) as a basis for accepting transfers provided that the evaluations are appropriately documented.	D. Verify that the farm has evidence of suppliers evaluating fish using the farm's health status metrics prior to accepting transfer or, if applicable, verify that the farm reviews evidence from statutory evaluations before accepting transfers.
		e. Ensure that responsible farm staff are trained to evaluate fish condition using health status metrics. Training should include instruction on how to identify fish health symptoms. Farms may decide for themselves on the most effective training tools (e.g. lectures, courses, tests) and frequency of training and re-training (e.g. annually, every two years, etc).	E.Verify that responsible farm staff have received training on how to evaluate fish condition using health status metrics.
		f. Arrange for the farm's veterinary health professional to reviewthe accuracy of fish health condition scores that were assigned by trained farm staff. This validation exercise may be done annually on a small sample of fish.	F. Verify that the farm's veterinary health professional has reviewed the accuracy of scoring by farm staff.
		g.Ensure that a sub-sample of fish are screened from each batch prior to transfer. Any batch which does not conform is returned to the supplier with health status metrics recorded.	G. Verify that the farm has evidence of health screening on a sub-sample of individuals prior to a decision to transfer each batch of fish.
4.1.3	**Indicator**: All fish that are moved off site, at all stages in the life cycle, are moved to a location of equal or lesser health status **Requirement:** Yes	a. Ensure that receivers evaluate fish health condition using metrics defined by the farm's designated veterinary health specialist (4.1.2a) at the receiving location prior to transfer, and to convey this information prior to transfer.	A. Verify the receiving farm has evidence that health check scoring was carried out before accepting transfer.
		b. Ensure that trained farm staff (4.1.2e) evaluate the health condition of a subsample of individuals prior to moving fish off site.	B. Verify that appropriately trained staff (as per 4.1.2e) have evaluated health condition and have recorded results prior to out-shipments.

	Applicability: All	c. Ensure that fish are only moved off site if there are records demonstrating that fish health in the receiving location is equal to or less than that in the shipping location.	C. Verify that the farm has a protocol that assures that evaluations show health status in receiving location is equal to or less than that in the shipping location.
4.1.4	**Indicator**: Site access, disinfection and hygiene protocols are written and observed **Requirement:** Yes **Applicability:** All	a. Prepare written protocols for site access, disinfection and hygiene (these protocols may be incorporated into the Farm Health Plan in 4.1.1a).	A. Verify that the required protocols exist.
		b. In the above protocols (4.1.4a) make direct reference to national regulations related to site access, disinfection and hygiene.	B. Verify that relevant national legislation has been appropriately accounted for in protocols.
		c. Ensure that farm protocols for site access, disinfection and hygiene are implemented.	C. Verify that the farm has on-site access to all materials needed for implementation of distinfection and hygiene protocols.
		-	D. Confirm that relevant staff are aware of nature and intent of protocols through interview.
4.1.5	**Indicator**: Biosecure disposal of mortalities and fish trimmings **Requirement:** Yes **Applicability:** All	a. Maintain records for disposal of all mortalities and fish trimmings.	A. Verify that the farm maintains records for disposal of all mortalities and fish trimmings.
		b. Create a protocol for biosecure disposal of biological tissue and fish trimmings with a rationale explaining how biosecurity is achieved.	B. Verify that the farm's protocol provides an adequate rationale to ensure biosecure disposal of mortalities and fish trimmings.
		c. In the above protocol (4.1.5b), make explicit reference to any national regulations related to disposal of biological waste.	C. Verify that relevant national legislation has been appropriately accounted for in the protocol.
		-	D. Confirm that relevant staff are aware of nature and intent of protocols through interviews.
4.1.6	**Indicator**: Immediate investigation of all mortality events on site and, in instances where mortality remains unexplained or unattributed, further investigation with fish health professionals off site [22] **Requirement:** Yes **Applicability:** All	**Instruction to Clients for Indicator 4.1.6 - Investigation of major Mortality Events** Indicator 4.1.6 requires that farms immediately investigate all major mortality events and attempt to identify cause. For the purposes of this Standard, a mortality event is any time period where fish experience a sharp increase in mortality rates such that the number of deaths increases significantly over background levels when compared on a monthly basis. The SC recognizes that fish have variable mortality rates over the course of their life cycle and that it is not practical for farms to attempt to explain or investigate every fish death. Nonetheless, a sudden increase in mortality rates requires immediate action and farms shall investigate the cause for all major mortality events. Note: An on-site investigation of mortality events (4.1.6c) is not required when farms proceed immediately to have all major mortality events investigated off-site (4.1.6d).	
		a. Maintain records of all mortality events and identify the actions taken. Collected data should indicate a baseline mortality as well as major mortality events.	A. Verify that the farm maintains records of all mortality events and actions taken. Verify baseline mortality and identify major mortality events.
		b. For each major mortality event identified in 4.1.6a, maintain records to show that the farm undertook immediate investigation (i.e. within 24 hours of detection).	B. Review records and supporting evidence to confirm that the farm undertook an investigation of each mortality event within 24 hours of detection.
		c. For investigation of major mortality events that are coducted on site, maintain a record of the tests used and the results obtained.	C. Verify evidence of records and methods used on site to investigate major mortality events.
		d. For any major mortality events in 4.1.6c where the results were unexplained or unattributed, have a relevant fish health professional perform an off site investigation and keep a record of their opinion as to cause.	D. Verify that farm has a record of opinion from fish health expert for off site investigations of major mortality events.
4.1.7	**Indicator**: Minimum frequency of inspection of the farm by a designated veterinarian [22] who specializes in aquatic animal health. The inspection must review the farm health plan. **Requirement:** ≥ 1 inspection per year, at a time when the site is in production **Applicability:** All	a. Maintain log showing the date of visit, title and affiliation of designated veterinarian.	A. Verify that an inspection log is maintained.
		b. Obtain signature from designated veterinarian confirming inspection and date.	B. Verify that inspections frequency is compliant with requirements.
		c. Maintain on site, a current (within 3 years) CV of the farm's designated veterinarian.	C. Verify that the credentials of the designated veterinarian conform to the definition in Footnote 22.
		-	D. Use feed records to ensure that inspections occurred during production.
Footnote	[22] A designated veterinarian is the professional responsible for health management on the farm who has the legal authority to diagnose disease and prescribe medication. He/she is expected to have a degree in veterinary medicine and a strong background in fish disease control. In some countries such as Norway, a fish health biologist or other professional has equivalent professional qualifications and is equivalent to a veterinarian for purposes of these standards. This definition applies to all references to a veterinarian throughout the standards document.		

4.1.8	**Indicator**: Evidence that maximum stock density was determined jointly by the designated veterinarian [22] and site management **Requirement:** Yes **Applicability:** All	a. Include rationale for maximum stock density in the farm health plan (see 4.1.1) that refers to peer reviewed reference material.	A. Verify that a section is included in the farm health plan that rationalizes stocking density and contains relevant references. Cross-check a sample of the peer-reviewed citations to confirm legitimacy and quality.
		b. Obtain a statement signed by the designated veterinarian and site manager confirming their joint determination of maximum stock density.	B. Verify that the farm has a signed statement from the designated veterinarian and site manager who have jointly determined the maximum stock density.
		-	C. Verify through interviews with site manager that he/she was consulted in the decision to determine maximum stock density.
Criterion 4.2 Chemicals and treatments			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
4.2.1	**Indicator**: Presence of a treatment plan, treatment record book and farm health history that includes a detailed recording of all treatments and all health events on the farm, as well as written veterinary prescriptions and receipts **Requirement:** Yes **Applicability:** All	a. Create requisite protocols which include at a mimimum: name of the veterinary health professional prescribing treatment; product name and chemical name (for all therapeutants and antimicrobials); treatment plan and reason for use (specific disease); date(s) of treatment; amount (g) of product used; dosage; quantity of fish treated (mt); WHO classifcation of any antibiotics used; and supplier of chemicals or therapeutants.	A. Verify that farm has a treatment plan and records of all treatments, health events and veterinary prescriptions.
		b. Maintain all required records and receipts listed in 4.2.1a.	B. Verify that the farm has records and receipts that match treatments over a subsample of time and cross-check prescriptions and treatment records against the FHP.
4.2.2	**Indicator**: Use of therapeutic treatments, including antibiotics or other treatments, that are banned under European Union (EU) law **Requirement:** Not permitted **Applicability:** All	a. Maintain a list of therapeutants (including antibiotics) banned by the EU and update the list no less than annually.	A. Cross-check receipts for treatments/therapeutants and confirm that none are items banned under EU law.
		b. Ensure that staff responsible for purchasing and administering therapeutants (including antibiotics) are aware of banned therapeutants listed in 4.2.2a.	B. Verify through interviews with staff that they are aware that the use of therapeutants banned under EU law is not permitted.
		c. Maintain records of voluntary and/or mandatory chemical residue testing conducted or commissioned by the farm from the prior and current production cycles.	C. As applicable, review results from any voluntary or mandatory chemical residue testing to verify that no EU banned substances were detected.
4.2.3	**Indicator**: Prophylactic use of chemical antimicrobial treatments (excluding prebiotics and probiotics that have been approved by a regulatory process that included a risk assessment) [23] **Requirement:** Not permitted **Applicability:** All	**Instructions to Clients for Indicator 4.2.3 - Use of Prebiotic and Probiotic Treatments** Under Indictor 4.2.3, the prophylactic use of chemical antimicrobial treatments is not permitted. However the use of prebiotics and probiotic treatments is excluded from this requirement if their usage has been approved by a regulatory process that includes a risk assessment [23]. For such usage to be considered under this exclusion, farms must: - present the auditor with the outcome of a risk assessment; - demonstrate that the regulatory body stipulates clearly who may conduct such risk assessments; - show that the risk assessor met these qualifications; and - show the auditor the portion of the risk assessment that articulates both allowance for the prebiotics or probiotics in use along with a rationale that references peer reviewed literature. The CAB shall review the above evidence to determine if prebiotics and/or probiotics usage qualifies for exclusion. Farms shall not use any prebiotic or probiotic compounds that are banned under EU law (see Indicator 4.2.2). If the CAB determines that farm usage of prebiotics and probiotics is in compliance with requirements, the CAB shall provide a rationale in the audit report. Note: The washing of eggs with chemical antimicrobial treatments is permitted under this standard.	
		a. Inform the CAB if the farm used any prebiotic or probiotic treatments for the last full production cycle and, if applicable, provide chemical names.	A. Determine if the farm's use of prebiotics or probiotics qualifies for an exclusion (see Instructions), verify that the chemical compounds are not banned in the EU, and provide a rationale in the audit report.
		b. Maintain records of all chemical antimicrobial treatments for the last full production cycle as per 4.2.1a and 4.2.1b.	B. Verify records of treatments and cross-check against purchases and inventories of chemical antimicrobial compounds.
		c. Provide records to show that all chemical anitmicrobial treatments identified in 4.2.3b were prescribed by the farm's veterinary health care professional before application.	C. Review records of antimicrobial treatments and cross-check against health screenings and prescriptions to verify there is no evidence of prophylactic treatments.
Footnote	[23] The washing of eggs is permitted under this requirement.		

4.2.4	**Indicator**: Public disclosure of all antimicrobial treatments used on the farm **Requirement:** Yes **Applicability:** All	**Instructions to Clients for Indicator 4.2.4 - Public Disclosure of Antimicrobial Treatments** Indicator 4.2.4 requires that farms make public disclosure of all antimicrobial treatments used on the farm. It is the intent of the ASC Freshwater Trout Standard that certified farms make public all applications of antibiotic treatments in order to better inform interested parties about the extent of their use. In this context, a public disclosure means that the farm has made the information easily accessible to any interested party. Generally it is envisioned that farms will make disclosures via the internet (e.g. by posting on the farm website). However ASC will allow farms to make public disclosures using other forms of media (e.g. newspaper ads, list server notifications, email distributions) if they are shown to be a more effective way to inform interested parties. In some situations, it may be impractical for a farm to make discosure via the internet (e.g. because of poor internet access or lack of a company website). Such farms may choose to make their public disclosure using the ASC website. To do so, farms must use the form in Appendix VI of the ASC Salmon Standard (not the ASC Trout Standard) to list all antimicrobial treatments that were used on the farm over the last full production cycle. The farm then submits this information to ASC for publication on the ASC website.	
		a. Maintain records of all antimicrobial treatments for the last full production cycle as per 4.2.1b.	A. Review farm records (4.2.1b) to identify all antimicrobial treatments used for the last full production cycle.
		b. Make a public disclosure of all the antimicrobial treatments listed in 4.2.4a. by publishing the information on the farm's website or via another more effective medium (see Instructions).	B. Verify that the farm has disclosed information about antimicrobial treatments and that the information is readily accessible by the public.
		c. As an alternative to 4.2.4b, farms may choose to make a public disclosure using the ASC website. If applicable, use the form in Appendix VI of the ASC Salmon Standard to list all antimicrobial treatments used on the farm. Then submitt the completed form to ASC for publication on the ASC website.	C. If applicable, verify that the farm has completed Appendix VI from the Sal mon Standard and submitted the information to ASC for publication.
4.2.5	**Indicator**: Proactive vaccination against diseases that present a risk in the region and for which an effective, legally authorized and commercially viable vaccine exists, as determined by the farm's designated veterinarian **Requirement:** Yes **Applicability:** All	a. Request that the veterinary health professional creates a record listing diseases that present a risk in the region and the relevant, available vaccine (or absence of a suitable vaccine).	A. Verify that the farm holds a list of the regional diseases that also gives the relevant, available vaccine or states the absence of a suitable vaccine.
		b. Maintain a record of all vaccinations administered.	B. Verify that the farm maintains a vaccination record.
		c. Where the veterinary health professional has listed a disease that does not have a commercially viable vaccine, or a when an existing vaccination has not been administered (for whatever reason), request that the veterinary health professional supplies a written rationale for avoiding vaccination in the vaccination record.	C. If a vaccine exists for a regional disease but was not administered, ensure that the farm's health professional provided a rationale. Consult outside expert for a second opinion if the rationale is unusual or weak.
PRINCIPLE 5: USE RESOURCES IN AN ENVIRONMENTALLY EFFICIENT AND RESPONSIBLE MANNER			
Criterion 5.1 Traceability and transparency of raw materials in feed			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**

		Instruction to Clients and CABs for Auditing Indicators 5.1.1 through 5.4.4 - Sourcing of Responsibly Produced Trout Feeds Farms must show that all feeds used by the farm are produced in compliance with the requirements of Indicators 5.1.1 through 5.4.4. To do so, trout producers must work directly with their feed producers (see note 1) to demonstrate compliance. Farms will need to obtain from their feed producers the results from third-party audits which demonstrate that feed producers have robust information systems and information handling processes to allow the feed producers to be able to bring forward accurate information about their production and supply chains. Declarations from the feed producer that are provided to the farm to demonstrate compliance with these indicators must be supported by the audits. Farms must also show that all of their feed producers are duly informed of the requirements of the ASC Freshwater Trout Standard relating to sourcing of responsibly produced trout feed (see 4.1.1b below). In addition to the above, farms must also show that their feed suppliers comply with the more detailed requirements for traceability of feed ingredients listed under Indicator 5.1.1. and 5.2.3. The ASC Freshwater Trout Standard permits two methods for demonstrating compliance with the standard: Method #1. This method requires the farm to buy feed that contains the ingredients as specified in these standards and provide an auditor with third-party documentation that the manufacturing process did indeed produce this special feed for the farmer. Method #2. Farmers also have a second option, commonly referred to as the "mass-balance approach." With this option, the farm's feed manufacturer must demonstrate, using a third-party audit, that it purchased the appropriate amount and type of ingredients to supply feed to all its customers requesting specific ingredients through schemes such as the ASC Freshwater Trout Standard . These ingredients, however, would be mixed into the general silos and production lines of the manufacturer, greatly reducing costs associated with special storage capacity and production lines. This mass-balance approach is commonly used in other certification schemes and in situations such as purchasing "green" energy off an electricity grid. Ingredients that could be included in a mass-balance approach are primary fishmeal and fish oil inputs, as well as vegetable ingredients such as soy. Note 1: The term "feed producer" is used here to identify the organization that produces the fish feed (i.e. it is the "feed manufacturer"). In most cases, the organization supplying feed to a farm (i.e. the feed supplier) will be the same organization that produced the feed, but there may be instances where feed suppliers are not directly responsible for feed production. Regardless of whether the farm sources feeds directly from a feed producer or indirectly through an intermediary organization, it remains the farm's obligation to show evidence that all feeds used are in compliance with requirements.	
5.1.1	**Indicator**: Evidence of traceability, demonstrated by the feed producer, of feed ingredients that make up more than 1% of the feed [24] **Requirement:** Yes **Applicability:** All	a. From each feed producer obtain a list of all ingredients representing more than 1% by weight of the feed as specified in Indicator 5.1.2 (below).	A. Confirm that the farm obtains relevant ingredient lists for all feeds used (also see 5.1.2a).
		b. For all feed ingredients identified in 5.1.1.a, provide copies of third-party documentation showing certified traceability of the production site and (for fish products), fishing area, landing site, species and harvest method.	B. Verify that farm has a copies of certificates from the feed manufacturer demonstrating chain of custody capable of tracing back to fishing area, landing site, species and harvest method
		c. For three ingredients of marine origin (fewer if fewer are used), collate three examples of traceback procedures conducted by a third-party auditor for the selected feed ingredients to the point of landing and vessel, in the source fishery.	C. Review examples of tracebacks for completeness and confirm compliance.
		d. For producers wishing to source from a feed manufacturer using a mass balance approach, provide a report from an onsite third-party audit of the feed manufacturer to assure traceability as in 5.1.1.b.	D. Verify that audit reports contain evidence of appropriate mass-balance records and procedures at the feed manufacturer (if applicable).
Footnote	[24] Traceability should be at a level of detail that permits the feed producer to demonstrate compliance with the requirements in this document (i.e., marine raw ingredients must be traced back to the fishery, soy to the region grown, etc.). Feed manufacturers will need to supply the farm with third-party documentation of the major ingredients covered under this requirement (e.g., marine ingredients, soy).		
5.1.2	**Indicator**: Presence of a list of all ingredients that make up more than 1% of the feed **Requirement:** Yes **Applicability:** All	a. Obtain a statement from each feed supplier (on company letterhead) identifying all feed ingredients that make up more than 1% of the feed by weight. Market names must be accompanied by scientific latin names for natural ingredients and formal chemical nomenclature for synthetic products.	A. Confirm that the farm has a complete lists of ingredients for all feeds being used.
		-	B. During the on-site inspection, verify that the farm is using only the types of feeds listed in 5.1.2a.
Criterion 5.2 Responsible origin of marine raw materials			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**

5.2.1	**Indicator:** Percentage of fishmeal and fish oil used in feed that comes from fisheries [25] certified under a scheme that is ISEAL-accredited and has guidelines that specifically promote responsible environmental management of small pelagic fisheries **Requirement:** 10% within three years of publication of the ASC Freshwater Trout Standard [by 7 February 2016) and 100% within five years [by 7 February 2018) **Applicability:** All	**Instruction to Clients for Indicator 5.2.1 - Feeds Containing Products that are Certified under an ISEAL-Accredited Scheme** ISEAL is the International Social and Environmental Accreditation and Labelling Alliance - a global association for social and environmental standards systems (see http://www.isealalliance.org). These requirements strive to meet the ISEAL guidelines for standard setting. The farm's feed manufacturer may use the "mass balance approach" to demonstrate that it purchased the appropriate amount and kind of "certified" ingredients to supply feed to all of its customers making a similar request over a given period of time. It is understood that ingredients will be mixed in silos and production lines, reducing costs associated with special storage capacity and production lines. This could be done instead of requiring documentation for a single batch per farm, which remains an option.	
		a. Prepare a policy stating the company's support of efforts to shift feed manufacturers purchases of fishmeal and fish oil to fisheries certified under a scheme that is an ISEAL member and has guidelines that specifically promote responsible environmental management of small pelagic fisheries. Include supporting text from the relevant portion of the certification scheme showing management unique to small pelagics.	A. Verify that the client's policy supports responsible feed sourcing (e.g. programs at http://www.isealalliance.org/about-standards/sectors-covered/fishing).
		b. Prepare a letter stating the farm's intent to preferentially source feed containing fishmeal and fish oil originating from fisheries certified under the type of certification scheme in 5.2.1a and inform all feed suppliers.	B. Verify that the client has prepared a letter of intent and has notified feed all its suppliers accordingly.
		c. Use feed inventory and feed supplier declarations in 5.1.2a to develop a list of the origin of all fish products used as feed ingredients.	C. Confirm that the farm has sufficient evidence for the origin of all fish products in feed to demonstrate compliance with indicator 5.2.1.
		d. Use the list from 5.2.1c to identify which fishmeal and fish oil feed ingredients come from fisheries certified under a scheme that is ISEAL-accredited and has guidelines that specifically promote responsible environmental management of small pelagic fisheries.	D. Confirm that the farm identifies which ingredients are certified as described in 5.2.1d.
		e. Starting 7 February 2016, provide evidence that the volume of certified ingredients (result from 5.2.1d) is ≥ 10% of the total volume of fishmeal and fish oil ingredients (result from 5.2.1c).	E. As of 7 February 2016, review evidence and confirm compliance. Prior to 7 February 2016, 5.2.1e does not apply.
		f. Starting 7 February 2018, provide evidence that 100% of fishmeal and fish oil used in feed come from certified fisheries as per 5.2.1d.	F. As of 7 February 2018, review evidence and confirm compliance. Prior to 7 February 2018, 5.2.1E applies.
Footnote	[25] This standard applies to fishmeal and oil from forage fisheries and not to by-products or trimmings used in feed.		
5.2.2.	**Indicator**: Prior to 100% achievement of 5.2.1, the Fishsource [26] score required for the fisheries from which marine raw material in feed is derived (excluding trimming and by-products) **Requirement:** All individual scores ≥ 6, and biomass score ≥ 8 **Applicability:** All	**Instruction to Clients for Indicator 5.2.2 - FishSource Score of Products Used in Feed** To determine FishSource scores of fish species used as feed ingredients, do the following: - go to http://www.fishsource.org/ - select "Species" drop down tab to the left - select the species that is utilized by the farm as a source of fish meal or oil - confirm that the search identifies the correct species, then select the top tab that reads "Scores" - Review scores to verify compliance. If results show the species does not meet all the criteria, then the feed does not meet requirements of the Standard. If the species has not been assessed (i.e. it is not listed on the FishSource website), then the feed does not meet requirements of the Standard. Contact FishSource via Sustainable Fisheries Partnerships to identify the species as a priority for assessment. If agreed with SFP, a qualified independent third party may be contracted to conduct an assessment of the source fishery using the FishSource methodology. The report must be reviewed following SFP's standard operating procedures. **Note:** Indicator 5.2.2. applies to fishmeal and oil from reduction fisheries and not to by-products or trimmings used in feed.	
		a. Provide a FS score for each fish species identified as a feed ingredient (see 5.1.2a) for all feeds used by the farm during the last 12 months. For first audits, farm records must cover ≥ 6 months.	A. Verify that the farm obtains FS scores for all fish species listed as feed ingredients.
		-	B. For a subsample of fish species listed in 5.2.2a, use the FishSource online database to check the validity of the farm's FS scores for the time period within two months of the onsite audit.

Footnote	[26] Fishsource scores and their methodology are available here: http://www.fishsource.org/site. While the score must be counted using Fishscore methodology, Fishsource itself does not need to calculate the score.		
5.2.3	**Indicator**: Prior to 100% achievement of 5.2.1, demonstration of chain of custody and traceability for fisheries products in feed through an ISEAL-accredited or ISO 65-compliant certification scheme that incorporates the United Nations Food and Agriculture Organization's "Code of Conduct for Responsible Fisheries" **Requirement:** Yes **Applicability:** All	**Instruction to Clients for Indicator 5.2.3 - Third-Party Verification of Traceability** Indicator 5.2.3 requires that farms show that their feed producers can demonstrate chain of custody and traceability as verified through third-party audits. Farms may submit reports from audits of feed producers (see 5.1.1b) as evidence that traceability systems are in compliance. Alternatively, farms may show that their feed producers comply with traceability requirements of Indicator 5.1.1. by submitting evidence that suppliers, and the batches of fishmeal and oil, are certified to the International Fishmeal and Fish Oil Organization's Global Standard for Responsible Supply or to the Marine Stewardship Council Chain of Custody Standard. For the first audit, a minimum of 6 months of data on feed is required and evidence shall relate to species used in said dataset.	
		a. Obtain from the feed supplier documentary evidence that the origin of all fishmeal and fish oil used in the feed is traceable via a third-party verified chain of custody or traceability program.	A. Review evidence and confirm that a third party verified chain of custody or traceability program was used for the fishmeal and fish oil.
		b. Ensure that all species within the scope of the chain of custody or traceability program align with fish meal and fish oil ingredients used in the farm's feeds (consistent with 5.2.2.a and 5.3.1.a).	B. Verify that the scope of the chain of custody audit matches ingredient lists for feeds.
5.2.4	**Indicator**: Evidence that by-product feed ingredients do not come from fish species that are categorized as vulnerable [27], endangered or critically endangered according to the IUCN Red List of Threatened Species [28] **Requirement:** Yes **Applicability:** All except as noted in [27]	Note: Instructions for searching the IUCN database are given under Indicator 2.1.3.	
		a. Compile and maintain a list (as per 5.3.1a below) of the fishery of origin for all fishmeal and fish oil originating from by-products and trimmings.	A. Review list and for consistency with 5.3.1a.
		b. For each by-product species (5.2.4a) that is an ingredient of any feed used during the last 12 months, search the IUCN database to determine if it is categorized as vulnerable, endangered, or criticatlly endangered. For first audits, farm records must cover ≥ 6 months.	B. Confirm that the farm has identified all byproducts and cross-check a subsample of species to verify their IUCN Red List categorization.
Footnote	[27] An exception is made for sub-populations of "vulnerable" species that can demonstrate healthy populations through a fishery certified by the Marine Stewardship Council, or approved by the technical committee of the IFFO Responsible Sourcing standard.		
Footnote	[28] The IUCN reference can be found at http://www.iucnredlist.org/		
Criterion 5.3 Dependency on wild-caught marine ingredients in feed [29]			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
Footnote	[29] The FFDR requirements are calculated for fish weighing 30 grams and more.		
5.3.1	**Indicator**: Fishmeal Forage Fish Dependency Ratio (FFDRm) for grow-out (calculated using formulas in Appendix III, subsection 1) **Requirement:** ≤1.5 **Applicability:** All	**Instruction to Clients for Indicator 5.3.1 - Calculation of Fish Meal FFDR** Farms must calculate the the Fishmeal Forage Fish Dependency Ratio (FFDRm) according to formula presented in Appendix III, subsection 1) c, using data from the most recent complete production cycle. Farms must also show that they have maintained sufficient information in order to make an accurate calculation of FFDRm as outlined below. For first audits, farms may be exempted from compliance with Indicator 5.3.1. for the most recent complete production cycle (i.e. if the FFDRm of the most recent crop was > 1.5) if the farm can satisfactorily demonstrate to the auditor that: - the client understands how to accurately calculate FFDRm; - the client maintains all information needed to accurately calculate FFDRm (i.e. all feed specs for > 6 months) for the current production cycle; and - the client can show how feed used for the current production cycle will ensure that the farm will meet requirements at harvest (i.e. FFDRm < 1.5).	
		a. Maintain a detailed inventory of the feed used including: - Quantities used of each formulation (kg); - Percentage of fish oil in each formulation used; - Source (fishery) of fish oil/EPA/DHA in each formulation used; - Percentage of oil in each formulation derived from trimmings; and - Supporting documentation and signed declaration from feed supplier.	A. Verify completeness of records and that values are stated in a declaration from the feed manufacturer.
		b. Calculate FFDRm using formulas in Appendix III. Exclude fish meal derived from rendering of seafood by-products (e.g. the "trimmings" from a human consumption fishery).	B. Verify that relevant calculations were done correctly, byproducts were excluded in calculations and confirm the value complies with the standard. Include in public audit report.
Note: Farms are allowed select one of two options (Option A or Option B) to demonstrate compliance with the requirements of Indicator 5.3.2.			

5.3.2 Option A	**Option A** **Indicator**: Compliance with the following requirement: Fish Oil Forage Fish Dependency Ratio (FFDRo) for grow-out (calculated using formulas in Appendix III, subsection 1) c **Requirement:** ≤2.95 **Applicability:** All, but note that farms may choose to demonstrate compliance with either Option A or Option B under Indicator 5.3.2.	**Instruction to Clients for Indicator 5.3.2 Option A - Calculation of Fish Oil FFDR** Farms must calculate the the Fish Oil Forage Fish Dependency Ratio (FFDRo) according to formula presented in Appendix III, subsection 1) c, using data from the most recent complete production cycle. Farms must also show that they have maintained sufficient information in order to make an accurate calculation of FFDRo as outlined below. For first audits, farms may be exempted from compliance with Indicator 5.3.2. for the most recent complete production cycle (i.e. if the FFDRo of the most recent crop was > 2.95) if the farm can satisfactorily demonstrate to the auditor that: - the client understands how to accurately calculate FFDRo; - the client maintains all information needed to accurately calculate FFDRo (i.e. all feed specs for > 6 months) for the current production cycle; and - the client can show how feed used for the current production cycle will ensure that the farm will meet requirements at harvest (i.e. FFDRo < 2.95). Note: exclude from these calculations oil derived from rendering of seafood by-products (e.g. the "trimmings") from a human consumption fishery.	
		a. Inform the CAB whether the farm choses **Option A** or **Option B** to show compliance. If Option A is selected, proceed directly to 5.3.2b below. Otherwise, skip to Option B in the next section.	A. Record which option the client chose and proceed to evaluate compliance with the applicable set of compliance criteria.
		b. Maintain a detailed inventory of the feed used as specified under 5.3.1a.	B. Verify completeness of records as done for 5.3.1A.
		c. Calculate FFDRo using formulas for eFCR value as given in Appendix III .	C. Verify that relevant calculations were done correctly, by-products were excluded in calculations and confirm the value complies with the requirement. Include in public audit report
5.3.2 Option B	**Option B** **Indicator**: Compliance with the following requirement: Maximum level of EPA/DHA content from marine sources as a percentage of fatty acids in the feed (excluding EPA/DHA from trimmings and by-products) **Requirement:** ≤ 9% **Applicability:** All, but note that farms may choose to demonstrate compliance with either Option A or Option B under Indicator 5.3.2.	**Instruction to Clients for Indicator 5.3.2 Option B - Calculation of EPA and DHA in Feed** Farms that choose Option B must show that the feeds used by the farm do not exceed the maximum level of EPA/DHA content. Detailed instructions for calculating EPA and DHA content are given in Section 2 of Appendix III. For these calculations, farms should exclude oil derived from rendering of seafood by-products (e.g. the "trimmings") from a human consumption fishery.	
		a. Inform the CAB whether the farm choses **Option A** or **Option B** to show compliance. If Option B is selected, proceed directly to 5.3.2b below. Otherwise, return to Option A in the previous section.	A. Record which option the client chose and proceed to evaluate compliance with the applicable set of compliance criteria.
		b. Maintain a detailed inventory of the feed used as specified under 5.3.1a.	B. Verify completeness of records as done for 5.3.1A.
		c. Calculate EPA/DHA percentage using formula in Section 2 of Appendix III.	C. Verify that relevant calculations were done correctly, by-products were excluded in calculations and confirm the value complies with the requirement. Include in public audit report
Criterion 5.4 Responsible origin of non-marine raw materials in feed			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
5.4.1	**Indicator**: Presence and evidence of a responsible sourcing policy for the feed manufacturer for feed ingredients that comply with internationally recognized moratoriums and local laws [30] **Requirement:** Yes **Applicability:** All	Note: In determining whether the policies of a feed manufacturer fulfill the requirements of Indicator 5.4.1, the CAB may also consider evidence such as certificates issued by independent third-parties against relevant requirements covering internationally recognized moratoriums and laws.	
		a. Compile and maintain a list of all feed suppliers with contact information (see also 5.1.1a).	A. Review feed supplier list and cross-check against feed purchases (see also 5.1.1a).
		b. Obtain from each feed manufacturer a copy of the manufacturer's responsible sourcing policy for feed ingredients showing how the company complies with recognized crop moratoriums and local laws [34].	B. Review policies from each feed supplier to confirm required sourcing policy is in place.
		c. Obtain copies of third-party audits of feed suppliers (5.1.1) and confirm that these show evidence that supplier's responsible sourcing policies are implemented.	C. Verify that the scope of third-party audits of feed suppliers includes review of policies and evidence of implementation.
Footnote	[30] Specifically, the policy shall include that vegetable ingredients, or products derived from vegetable ingredients, must not come from the Amazon Biome as geographically defined by the Brazilian Soya Moratorium.		
	Indicator: Percentage of soy ingredients that are certified by the	a. Prepare a letter to each feed supplier stating the farm's intention to source only feeds with soy ingredients that are certified by the Roundtable for Responsible Soy (RTRS) or equivalent.	A. Verify that the farm has prepared a letter of intent.

5.4.2	Roundtable on Responsible Soy, or equivalent [31] **Requirement:** 100% within five years of publication of the ASC Freshwater Trout Standard (by 7 February 2018) **Applicability:** All	b.Keep records to show that the farm sent the letter of intent (5.4.2a) to each feed supplier.	B. Verify that the farm sent a letter of intent (5.4.2) to each feed supplier. Acceptable forms of evidence may include direct responses from suppliers (emails, letters confirming receipt) or certified mail slips.
		c. Obtain and maintain declarations from all feed suppliers detailing the origin of soya in the feeds.	C. Confirm that the farm has sufficient evidence for the origin of soya products in feeds to demonstrate compliance with indicator 5.4.2 after 7 February 2018.
		d. Starting 7 February 2018, provide evidence that all soya used in feed is certified by the RTRS or equivalent [31].	D. As of 7 February 2018 review evidence and confirm compliance. Prior to 7 February 2018, 5.4.2d does not apply.
Footnote	[31] The technical governance structure of the ASC must approve any other certification scheme as equivalent.		
5.4.3	**Indicator**: Disclosure by the feed supplier of any ingredients that contain more than 0.9% transgenic [32] plant material **Requirement:** Yes **Applicability:** All	**Instruction to Clients and Auditors for Indicator 5.4.3 - Disclosure of Feed Ingredients Containing Transgenic Plant Material** Indicator 5.4.3 requires farms to ensure that their feed suppliers disclose any transgenic plant material used as a feed ingredient where that material comprises more than 0.9% of the total weight of feed. Farms must maintain documentary evidence that the suppliersof GM-free feed ingredients have made such disclosures. Documentary evidence must include a written statement (i.e. a disclosure or declaration) from the feed manufacturer detailing each of the plant materials used as feed ingredients and a listing of all ingredients where transgenic plant materials comprises >0.9% by weight. Optional: feed manufacturers may also provide farms with the results of testing for Genetically modified Organisms (GMOs) as evidence of compliance. In cases where farmer states use of feed with NO gmo feed ingredients, he/she must demonstrate clear evidence by results of biomolecular testing by the feed manufacturer.	
		a. Obtain from feed suppliers a disclosure detailing all plant material used as feed ingredients (i.e. soya and others plants) and specify which of these ingredients contains >0.9% transgenic plant material by weight.	A. Review feed supplier declarations to confirm that all suppliers have made a disclosure identifying any ingredient containing >0.9% transgenic plant material.
Footnote	[32] Transgenic: Containing genes altered by insertion of DNA from an unrelated species; this involves taking genes from one species and inserting them into another species to get that trait expressed in the offspring.		
5.4.4	**Indicator**: Disclosure by the farm to the direct purchasers of its harvested fish of any feed ingredients that have contained more than 0.9% transgenic material **Requirement:** Yes **Applicability:** All	Note: for the purposes of Indicator 5.4.4, the direct purchaser or 'buyer' is considered to be the person or entity who makes payment to the producer in exchange for possession of harvested fish.	
		a. For feeds with ingredients containing > 0.9% transgenic plant material (i.e. those feeds specified in 5.4.3a), ensure that the farm can identify any harvested fish that were fed such products. If no such feeds were identified in 5.4.3a, then Indicator 5.4.4 is not applicable.	A. If applicable based on results of 5.4.3a, verify that the farm has a robust method for identifying harvested fish that were reared using said feeds.
		b.If disclosures about transgenic matrial are needed (based on 5.4.4a), the farm must compile a list of all buyers who may have obtained fish from the harvest in question. The list must include contact details of buyers.	B. Review the farm's list of buyers and cross-check with sales records and invoices (as applicable).
		c. As applicable (based on 5.4.4a), the farm must make disclosures to all buyers listed in 5.4.4b. Maintain documentary evidence of disclosures. For first audits, farm records of disclosures must cover > 6 months.	C. As applicable, verify evidence that the farm has made disclosures to all buyers about transgenic feed ingredients. Cross-check the plant material list from feed supplier (5.4.3.a) to see that all transgenic plant ingredients were disclosed.
Criterion 5.5 Energy consumption and greenhouse gas emissions (on farm)			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
	Indicator: Presence of records and evidence of all energy consumption on the farm (including electric power and fuels) and	**Instruction to Clients for Indicator 5.5.1 - Energy Use Assessment** Indicator 5.5.1 requires that farms must have an assessment to verify on-farm energy consumption. The ASC Freshwater Trout Standard does not prescribe who must perform the assessment nor which assessment protocol must be followed so long as the energy use assessment meets the intent of the standard as described here. Farms may perform the assessment may be performed internally or it may be done externally by a third-party entity. In either case, recommended assessment methodologies include the GHG Protocol Corporate Standard (http://www.ghgprotocol.org/files/ghgp/public/ghg-protocol-revised.pdf) or ISO 14064-1 (http://www.iso.org/iso/catalogue_detail?csnumber=38381). The scope of Indicator 5.5.1 is restricted to operational energy use on the farm site(s) that is applying for certification. It does not include energy used in off-site production activities (i.e. production of feed or fingerlings). However the ASC encourages companies to integrate energy use assessments across the full life cycle of products for the company. For the purposes of calculating energy consumption, the relevant timeframe is 12 months (i.e. annually).	

5.5.1	evidence of an energy use assessment of on-farm energy consumption **Requirement:** Yes, measured in kilojoule/mt fish/year **Applicability:** All	a. Maintain records for all energy consumption on the farm by source (fuel, electricity) throughout the year.	A. Verify that the farm maintains records for energy consumption.
		b. Use results from 5.5.1a and relevant conversion factors to calculate the farm's total energy consumption in kilojoules (kj) during the last 12 months.	B. Review the farm's calculations for total energy use and cross-check against farm records for energy consumption.
		c. Calculate the total weight of fish produced (in metric tons, mt) during the last 12 months. When calculating total annual production, it is acceptable for farms to estimate the total weight using records for processed weight or tonnage sold.	C. Cross-check the farm's reported annual production against other farm data sets (e.g. harvet records, sales).
		d. Use the results of 5.5.1b divided by the results of 5.5.1c to calculate energy consumption on the farm in kilojuoule/mt fish/year.	D. Review the farm's energy use calculations to confirm accuracy and completeness.
		e. Provide the CAB with evidence that the farm has had an energy use assessment (see Instructions above) within the last 12 months.	E. Verify that the farm has had an energy use assessment.
Criterion 5.6 Non-therapeutic chemical inputs			
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**
5.6.1	**Indicator**: Percentage of combustibles contained in waterproof bunds **Requirement:** 100% **Applicability:** All	a. Maintain a written list of all types of combustibles used on the farm.	A. Verify that the farm has a complete list of combustibles on the premises.
		b. Ensure that all combustibles are stored in waterproof bunds.	B. Verify the storage locations of combustibles with responsible staff and confirm that combustibles are stored in waterproof bunds during the on-site inspection.
5.6.2	**Indicator**: Percentage of chemicals stored in impermeable containers or buildings **Requirement:** 100% **Applicability:** All	a. Maintain a detailed list of all chemicals or therapeutants on the farm.	A. Verify that the farm has a complete list of chemicals and therapeutants on the premises.
		b. Ensure that all chemicals or therapeutants are stored in impermeable containers or buildings.	B. Verify the storage locations of chemicals with responsible staff and confirm during the on-site inspection that all chemicals or therapeutants are stored in impermeable containers or buildings.
5.6.3	**Indicator**: Percentage of used lubricants recycled or turned over to a waste management company **Requirement:** 100% **Applicability:** All	a. Prepare a written policy or procedure explaining how used lubricants are recycled or turned over to a waste management company. If no waste management company exists, obtain a signed letter from the government agency in charge of waste disposal at the provincial/state level as confirmation.	A. Verify policy with responsible staff and observe waste containers in use during the on-site inspection. Or, examine letter of confirmation if relevant.
		b. Where waste is collected by a waste management company, maintain receipts of payment for services.	B. Verify that the farm has records of payment to waste management company.
5.6.4	**Indicator**: Percentage of chemical containers reused or turned over to a waste management company **Requirement:** 100% **Applicability:** All	Note: When chemical containers are re-used, it shall be only for the purpose of refilling with the same chemical. Farms should not re-fill containers with different chemicals because of the risk of mislabeling. Farms should never reuse the packaging/containers of hazardous materials.	
		a. Prepare a written policy explaining how the chemical containers are reused or turned over to a waste management company. If no waste management company exists, obtain a signed letter from the government agency in charge of waste disposal at the local level as confirmation that neither public nor private waste disposal services are available.	A. Verify policy with responsible staff and observe waste containers in use during the on-site inspection. Or, examine letter of confirmation if relevant.
		b. Where containers are re-used, maintain records of chemical purchases and demonstrate tallied alignment against the number of containers in re-use/re-cycled.	B. Verify container tally based on record of chemical purchases versus containers in use/re-cycled.
		-	C. Verify that the farm has records of disposal or payment to waste disposal company.

5.6.5	**Indicator**: Percentage of non-hazardous, non-recyclable wastes turned over to a waste management company or landfill [33] **Requirement:** 100% **Applicability:** All	a. Prepare a written farm policy explaining how and which non-hazardous, non-recyclable wastes are turned over to a waste management company or buried on-site. If no waste management company exists, obtain a signed letter from the government agency in charge of waste disposal at the local level as confirmation that neither public nor private waste disposal services are available.	A. Verify farm policy with responsible staff and examine handling of non-hazardous, non-recyclable wastes during the on-site inspection. Or, examine letter of confirmation if relevant.
		b. For on-site burial of waste, show that an outside expert (hired groundwater or geology consultant with minimum of five years experience and university degree, or academic groundwater geologist) has signed a letter affirming that waste burial poses no risk of contamination to surface and underground waters. Maintain CV of outside expert on file for possible inspection.	B. Verify that farm has letter affirming lack of impacts to freshwater due to buried waste protocols by an expert with the stated credentials.
		c. Include a statement in the farm waste disposal policy (5.6.5a) which prohibits the burning of non-hazardous, non-recyclable wastes.	C. Verify that burning is covered in the farm policy. During the audit, inspect the farm to verify there is no evidence of burning waste materials (not allowed).
		d. Where waste is collected by a waste management company, maintain receipts of payment for services.	D. Verify that the farm has records of payment to waste disposal company.
		e. Where waste collection is a public service, show schedule of collections.	E. Verify waste collection schedule.
Footnote	[33] In case of absence of a managed landfill in the area, farms are allowed to bury non-hazardous solid wastes on site, provided all precautions have been taken to prevent the contamination of surrounding surface and underground waters. Wastes that are not biodegradable must not be burned on site because of the possible emissions of toxic gases.		
5.6.6	**Indicator**: Demonstration that a farmer is aware of recycling facilities that are accessible to the farm and demonstration of a commitment to use those facilities **Requirement:** Yes **Applicability:** All	a. Provide a list of the three closest recycling facilities for relevant farm products (regardless of how far away these may be). Provide the auditor with contact informationl for the local waste management agency. If the farm is obligated to utilize a designated recycling facility (e.g. as specified in local regulations or environmental use permit), the farm shall provide this information to the auditor.	A. Contact the local waste management agency to determine accessibility of the three closest recycling facilities that were identified by the farm as applicable.
		b. Prepare a written statement articulating the farm's commitment to recycle waste from production.	B. Review the farm's statement of commitment to use those recycling facilities that are accessible to the farm.
		c. Provide a description of the types of production waste materials and how these are either disposed of, or recycled.	C. During the on-site visit, interview relevant staff and make direct observations to confirm that farm recycling procedures are implemented.
		d. Inform CAB of any infractions or fines for improper waste disposal received during the previous 12 months and corrective actions taken.	D. Review infractions and corrective actions, if any.

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Social requirements of this Standard shall be audited by an individual who is a lead auditor in conformity with SAAS Procedure 200 section 3.1.
(See ASC Farm Certification and Accreditation Requirements)

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PRINCIPLE 6: BE SOCIALLY RESPONSIBLE		
Criterion 6.1 Child labor		
		Compliance Criteria
6.1.1	**Indicator:** Number of incidences of child [34] labor [35] **Requirement:** None **Applicability:** All	Note: In most countries, the law states that minimum age for employment is 15 years. There are two possible exceptions: - in developing countries where the legal minimum age may be set to 14 years under the developing country exceptions in ILO convention 138; or - in countries where the legal minimum age is set higher than 15 years, in which case the legal minimum age of the country is followed. If the farm operates in a country where the legal minimum ages is not 15, then the employer shall maintain documentation attesting to this fact.
		a. Minimum age of permanent workers is 15 or older (except in countries as noted above).
		b. Employer maintains age records for employees that are sufficient to demonstrate compliance.

Footnote	[34] Child: Any person under 15 years of age. A higher age would apply if the minimum age law of an area stipulates a higher age for work or mandatory schooling.	
Footnote	[35] Child labor: Any work by a child younger than the age specified in the definition of a child.	
Footnote	[36] Young worker: Any worker between the maximum age of a child, as defined above, and under the age of 18.	
Footnote	[37] Hazard: The inherent potential to cause injury or damage to a person's health (e.g., being unequipped to handle heavy machinery safely and unprotected exposure to harmful chemicals). Hazardous work: Work that, by its nature or circumstances in which it is carried out, is likely to harm the health, safety or morals of workers.	
Criterion 6.2 Forced, bonded or compulsory labor		
		Compliance Criteria
6.2.1	**Indicator:** Number of incidences of forced [38], bonded [39] or compulsory labor **Requirement:** None **Applicability:** All	a. Contracts are clearly stated and understood by employees. Contracts do not lead to workers being indebted (i.e. no 'pay to work' schemes through labor contractors or training credit programs).
		b. Employees are free to leave workplace and manage their own time.
		c. Employer does not withhold employee's original identity documents.
		d. Employer does not withhold any part of workers' salaries, benefits, property or documents in order to oblige them to continue working for employer.
		e. Employees are not to be obligated to stay in job to repay debt.
		f. Maintain payroll records and be advised that workers will be interviewed to confirm the above.
Footnote	[38] Forced (Compulsory) Labor: All work or service that is extracted from any person under the menace of any penalty for which a person has not offered himself/herself voluntarily or for which such work or service is demanded as a repayment of debt. "Penalty" can imply monetary sanctions, physical punishment or the loss of rights and privileges or restriction of movement (e.g., withholding of identity documents).	
Footnote	[39] Bonded labor: When a person is forced by the employer or creditor to work to repay a financial debt to the crediting agency.	
Criterion 6.3 Discrimination [40] in the work environment		
		Compliance Criteria
Footnote	[40] Discrimination: Any distinction, exclusion or preference that has the effect of nullifying or impairing equality of opportunity or treatment. Not all distinction, exclusion or preference constitutes discrimination. For instance, a merit- or performance-based pay increase or bonus is not, by itself, discriminatory. Positive discrimination in favor of people from certain underrepresented groups may be legal in some countries.	
6.3.1	**Indicator:** Evidence of proactive antidiscrimination practice [41] **Requirement:** Yes **Applicability:** All	a. Employer has written anti-discrimination policy in place, stating [41] the company does not engage in or support discrimination in hiring, remuneration, access to training, promotion, termination or retirement based on race, caste, national origin, religion, disability, gender, sexual orientation, union membership, political affiliation, age or any other condition that may give rise to discrimination.
		b. Employer has clear and transparent company procedures that outline how to raise, file, and respond to discrimination complaints.
		c. Employer respects the principle of equal pay for equal work and equal access to job opportunities, promotions and raises.
		d. All managers and supervisors receive training on diversity and non-discrimination. All personnel receive non-discrimination training. Internal or external training is acceptable if proven effective.
Footnote	[41] Employers shall have written antidiscrimination policies stating the company does not engage in or support discrimination in hiring, remuneration, access to training, promotion, termination or retirement based on race, caste, national origin, religion, disability, gender, sexual orientation, union membership, political affiliation, age or any other condition that may give rise to discrimination.	
6.3.2	**Indicator:** Number of incidences of discrimination **Requirement:** None **Applicability:** All	a. Employer maintains a record of all discrimination complaints. These records do not show evidence for discrimination.
		b. Be advised that worker testimonies will be used to confirm that the company does not interfere with the rights of personnel to observe tenets or practices, or to meet needs related to race, caste, national origin, religion, disability, gender, sexual orientation, union membership, political affiliation or any other condition that may give rise to discrimination.
Criterion 6.4 Work environment health and safety		
		Compliance Criteria
6.4.1	**Indicator:** Percentage of workers trained in health and safety practices, procedures and policies **Requirement:** 100% **Applicability:** All	a. Employer has documented practices, procedures (including emergency response procedures) and policies to protect employees from workplace hazards and to minimize risk of accident or injury. The information shall be available to employees.
		b. Practices, policies and procedures are regularly revised to address workplace hazards that were identified in risk assessments (see Indicator 6.4.5, risk assessents revised at least annually).
		c. Employees know and understand emergency response procedures.

	Applicability: All	d. Employer conducts health and safety training for all employees on a regular basis (once a year and immediately for all new employees), including training on potential hazards and risk minimization, Occupational Safety and Health (OSH) and effective use of PPE.
6.4.2	**Indicator:** Evidence that health- and safety-related accidents are recorded and corrective actions are taken **Requirement:** Yes **Applicability:** All	a. Employer records all health- and safety-related accidents.
		b. Employer maintains complete documentation for all occupational health and safety violations.
		c. Employer implements corrective action plans in response to any accidents that occur. Plans are documented and they include an analysis of root cause, actions to address root cause, actions to remediate, and actions to prevent future accidents of similar nature.
		d. Employees working in departments where accidents have occurred can explain what analysis has been done and what steps were taken or improvements made.
6.4.3	**Indicator:** Proof of company accident insurance covering employee costs stemming from a job-related accident or injury when not covered under national law **Requirement:** Yes **Applicability:** All	a. Employer maintains documentation to confirm that all personnel are provided sufficient insurance to cover costs related to occupational accidents or injuries (if not covered under national law). Equal insurance coverage must include temporary, migrant or foreign workers. Written contract of employer responsibility to cover accident costs is acceptable evidence in place of insurance.
6.4.4	**Indicator:** Workers use and have access to appropriate personal protective equipment (PPE) **Requirement:** Yes **Applicability:** All	a. Employer maintains a list of all health and safety hazards (e.g. chemicals).
		b. Employer provides workers with PPE that is appropriate to known health and safety hazards.
		c. Employees receive annual training in the proper use of PPE (see 6.4.1d).
		d. Be advised that workers will be interviewed to confirm the above.
6.4.5	**Indicator:** Evidence of a health and safety assessment of site facilities and processes **Requirement:** Yes **Applicability:** All	a. Employer makes regular assessments of hazards and risks in the workplace. Risk assessments are reviewed and updated at least annually (see also Indicator 6.4.1).
		b. Employees are trained in how to identify and prevent known hazards and risks (see also 6.4.1d).
		c. Health and safety procedures are adapted based on results from risk assessments (above) and changes are implemented to help prevent accidents.
Criterion 6.5 Wages		
		Compliance Criteria
6.5.1	**Indicator:** The percentage of employees who are paid a basic needs wage [42]. **Requirement:** 100% **Applicability:** All	a. Employer keeps documents to show the legal minimum wage in the country of operation. If there is no legal minimum wage in the country, the employer keeps documents to show the industry-standard minimum wage.
		b. Employer's records (e.g. payroll) confirm that worker's wages for a standard work week (≤ 48 hours) always meet or exceed the legal minimum wage. If there is no legal minimum wage, the employer's records must show how the current wage meets or exceeds industry standard. If wages are based on piece-rate or pay-per-production, the employer's records must show how workers can reasonably attain (within regular working hours) wages that meet or exceed the legal minimum wage.
		c. Employer maintains documentary evidence to show compliance (e.g. payroll, timesheets, punch cards, production records, and/or utility records). Be advised that workers will be interviewed to confirm the above.
		d. Proof of employer engagement with workers and their representative organizations, and the use of cost of living assessments from credible sources to assess basic needs wages. Includes review of any national basic needs wage recommendations from credible sources such as national universities or government.
		e. Employer has calculated the basic needs wage for farm workers and has compared it to the basic (i.e. current) wage for their farm workers.
		f. Employer demonstrates how they ensure paying a basic needs wage to their workers.
Footnote	[42] Basic needs wage: Enables workers to support the average-sized family above the poverty line, based on local prices near the workplace. Basic needs include essential expenses (e.g., food, clean water, clothes, shelter, transportation and education), a discretionary income, as well as legally mandated social benefits (e.g., health care, medical insurance, unemployment insurance and retirement).	
	Indicator: Evidence of transparency in wage setting	a. Wages and benefits are clearly articulated to workers and documented in contracts.
		b. The method for setting wages is clearly stated and understood by workers.

6.5.2	**Requirement:** Yes **Applicability:** All	c. Employer renders wages and benefits in a way that is convenient for the worker (e.g. cash, check, or electronic payment methods). Workers do not have to travel to collect benefits nor do they receive promissory notes, coupons or merchandise in lieu of payment.
		d. Be advised that workers will be interviewed to confirm the above.
Footnote	[43] A legal minimum wage will be considered a basic needs wage if it is set in a manner consistent with the intent of ensuring basic needs are met. In instances where there is no legal minimum wage, or a legal minimum that is not set in the spirit of a basic needs wage, the auditor must determine an appropriate proxy for basic needs.	
Criterion 6.6 Access to freedom of association and the right to collective bargaining [44]		
		Compliance Criteria
Footnote	[44] Bargain collectively: A voluntary negotiation between employers and organizations of workers to establish the terms and conditions of employment by means of collective (written) agreements.	
6.6.1	**Indicator:** Incidences of employees denied freedom to associate, the ability to bargain collectively or denied access to representatives, or representative organizations, chosen by workers **Requirement:** 0 (zero) **Applicability:** All	a. Workers have the freedom to join any trade union, free of any form of interference from employers or competing organizations set up or backed by the employer.
		b. Union representatives are chosen by workers without managerial interference. ILO specifically prohibits “acts which are designated to promote the establishment of worker organizations or to support worker organizations under the control or employers or employers’ organizations."
		c. Trade union representatives have access to their members in the workplace at reasonable times on the premises.
		d. Employment contract explicitly states the worker's right of freedom of association.
		e. Employer has explicitly communicated a commitment to ensure the collective bargaining rights of all workers.
		f. Local trade union, or where none exists a reputable civil-society organization, confirms no outstanding cases against the farm site management for violations of employees’ freedom of association and collective bargaining rights.
		g. There is documentary evidence that workers are free and able to bargain collectively (e.g. collective bargaining agreements, meeting minutes, or complaint resolutions).
		h. Be advised that workers will be interviewed to confirm the above.
Criterion 6.7 Disciplinary practices		
		Compliance Criteria
6.7.1	**Indicator:** Incidences of abusive disciplinary actions **Requirement:** None **Applicability:** All	a. Employer does not use threatening, humiliating or punishing disciplinary practices that negatively impact a worker’s physical and mental health or dignity.
		b. Allegations of corporeal punishment, mental abuse [46], physical coercion, or verbal abuse will be investigated by auditors.
		c. Be advised that workers will be interviewed to confirm there is no evidence for excessive or abusive disciplinary actions.
6.7.2	**Indicator:** Evidence of nonabusive disciplinary policies and procedures whose aim is to improve the workers’ performance [45] **Requirement:** Yes **Applicability:** All	a. Employer has written policy for disciplinary action which explicitly states that its aim is to assist the worker to improve [45].
		b. Maintain documentary evidence (e.g. worker evaluation reports) and be advised that workers will be interviewed to confirm that the disciplinary action policy is fair and effective.
Footnote	[45] If disciplinary action is required, progressive verbal and written warnings shall be engaged. The aim should always be to improve the worker before letting him/her go. (Indicated by policy statements as well as evidence from worker testimony.)	
Footnote	[46] Mental abuse: Characterized by the intentional use of power, including verbal abuse, isolation, sexual or racial harassment, intimidation or threat of physical force.	
Criterion 6.8 Overtime and working hours		
		Compliance Criteria
6.8.1	**Indicator:** Violations or abuse of working hours [47] and overtime [48] laws and agreements **Requirement:** None	a. Employer has documentation showing the legal requirements for working hours and overtime in the region where the farm operates. If local legislation allows workers to exceed internationally accepted recommendations (48 regular hours, 12 hours overtime) then requirements of the international standards apply.
		b. Records (e.g. time sheets and payroll) show that farm workers do not exceed the number of working hours allowed under the law.
		c. Payment records (e.g. payslips) show that workers are paid a premium rate [49] for overtime hours.
		d. Overtime is limited and occurs in exceptional circumstances as evidenced by farm records (e.g. production records, time sheets, and other records of working hours).

	Applicability: All	e. If an employer requires employees to work shifts at the farm (e.g. 10 days on and six days off), the employer compensates workers with an equivalent time off in the calendar month and there is evidence that employees have agreed to this schedule (e.g. in the hiring contract).
		f. Be advised that workers will be interviewed to confirm there is no abuse of working hours and overtime laws.
Footnote	[47] Working hours (a.k.a. normal work week) can be defined by law but shall not exceed 48 hours on a regular basis (i.e., constantly or the majority of the time). Variations based on seasonality may apply but personnel shall be provided with at least one day off in every seven-day period.	
Footnote	[48] All overtime shall be paid at a premium and should not exceed 12 hours per week. In the case of exceptional or emergency events, additional overtime hours are permitted. In such exceptional cases, which must pose an acute and long-term threat to the farm, workers will receive a premium wage and an equal amount of time off in addition to normal time off. Overtime work shall be voluntary, except in cases where it is legal and in which there is a collective bargaining agreement in place that permits compulsory overtime in order to meet short-term business demands.	
Footnote	[49] Premium rate: A rate of pay higher than the regular work week rate. Must comply with national laws/regulations and/or industry standards.	
Criterion 6.9 Interactions with communities		
		Compliance Criteria
6.9.1	**Indicator:** For new farms, evidence of engagement and consultation with surrounding communities about potential social impacts [50] from the farm **Requirement:** Yes **Applicability:** All new farms (see note)	Note: A 'new farm' is defined as an aquaculture operation where construction was completed after the publication date of the ASC Freshwater Trout Standard 7 February 2013 or a farm that underwent a significant expansion after said publication date.
		a. Provide evidence to show whether or not the farm fits the definition of a 'new farm' as used here. If yes, proceed to 6.9.1b. If not, then Indicator 6.9.1 does not apply to the farm.
		b. Provide results of a participatory Social Impact Assessment (p-SIA) or equivalent methodology as evidence of the farm's engagement and consultation with surrounding communities about potential social impacts from the farm. Mandatory for all farm sites with greater than ten (10) staff/employees.
		c. Evidence provided in 6.9.1b should include minutes from community meetings and a log of communications with stakeholders. Consultations should address economic impacts, natural resource access and use, human health and safety issues, and changes to physical infrastructure and cultural issues, with a particular focus on impacts to indigenous people, where applicable.
Footnote	[50] Evidence could include minutes from community meetings and a log of communications with stakeholders. Social impacts to be discussed would likely include economic impacts, natural resource access and use, human health and safety issues, and changes to physical infrastructure and cultural issues, with a particular focus on impacts to indigenous people, where applicable.	
6.9.2	**Indicator:** Evidence of regular communication, engagement and consultation with surrounding communities **Requirement:** Yes **Applicability:** All	a. The farm engages in consultations with the local community at least twice every year (bi-annually). Note: farms with less than 6 employees consultations once every year is sufficient. This may include local authorities and/or elected community representatives.
		b. Consultations are meaningful. OPTIONAL: the farm may choose to use participatory Social Impact Assessment (pSIA) or an equivalent method for consultations. Mandatory for all farm sites with greater than ten (10) staff/employees.
		c. Consultations include participation by elected representatives from the local community who were asked to contribute to the agenda.
		d. Maintain records and documentary evidence (e.g. meeting agenda, minutes, report) to demonstrate that consultations comply with the above.
		e. Be advised that representatives from the local community and organizations may be interviewed to confirm the above.
6.9.3	**Indicator:** Evidence of an operational grievance and conflict resolution mechanism to address community concerns **Requirement:** Yes **Applicability:** All	a. Farm policy provides a mechanism for presentation, treatment and resolution of grievances (i.e. complaints) lodged by stakeholders, community members, and organizations.
		b. The farm follows its policy for handling stakeholder grievances as evidenced by farm documentation (e.g. follow-up communications with stakeholders, reports to stakeholder describing corrective actions).
		c. The farm's mechanism for handling grievances is effective based on resolution of stakeholder complaints and community concerns (e.g. follow-up correspondence from stakeholders).
		d. Be advised that representatives from the local community, including complainants where applicable, may be interviewed to confirm the above.

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A farm seeking certification must have documentation from all of its fingerling and egg suppliers to demonstrate compliance with the following requirements.

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SECTION 7: REQUIREMENTS FOR FINGERLING AND EGG SUPPLIERS			
		Compliance Criteria	
	Indicator: Presence of documents issued by pertinent authorities proving compliance with local and national authorities on land and	a. Obtain copies of supplier's business permit and land title deed.	A. Verify that farm obtains copies of business permits and land title deed from each supplier (if applicable).

7.1	proving compliance with local and national authorities on land and water use, effluent regulations and use of treatments **Requirement:** Yes **Applicability:** All	b. Obtain records from suppliers showing discharge permit requirements as required.	B. Verify that farm obtains records from suppliers to show compliance with discharge permit requirements.
		c. Obtain records from suppliers showing treatments used on fingerlings and eggs.	C. Verify that the farm obtains treatment records from its suppliers.
		d. Maintain on-site copies of laws governing water use, land use, effluent regulations and chemical treatments for animals.	D. Verify that farm obtains records from suppliers to show compliance with water extraction permit requirements, if applicable.
7.2	**Indicator:** New introductions of exotic species from the date of publication of the ASC Freshwater Trout Standard (7 February 2013), unless the hatchery/fingerling facility is a closed production system [51] **Requirement:** None **Applicability:** All	Note: For the purposes of Indicator 7.2, a species is not considered exotic if it can be shown that the species is native to the area of farm operation or the species was established in the area of the farm prior to publication of the ASC Freshwater Trout Standard. Also see Indicator 2.3.1.	
		a. Obtain written evidence showing whether or not the fingerling and egg suppliers use closed production systems [51]. If yes, then Indicator 7.2 does not apply.	A. Verify that the farm has evidence that their suppliers use only closed production systems [51]. Otherwise, proceed to 7.2B.
		b. Obtain written evidence showing that the fingerling and egg suppliers do not produce an exotic species. If they do not, then Indicator 7.2 does not apply.	B. Verify that the farm has evidence that their suppliers do not produce an exotic species . If suppliers do produce exotic species, proceed to 7.2C.
		c. If the supplier produces an exotic species, obtain written evidence that the species was widely commercially produced in the area before publication of the ASC Freshwater Trout Standard.	C. Verify that the farm has evidence showing that the exotic species in 7.2c was widely commercially produced in the area before publication of the ASC Freshwater Trout Standard.
Footnote	[51] A closed production system is defined as a facility with recirculating water that is separated from the wild aquatic medium by effective physical barriers that are in place and well maintained to ensure no escapes of reared specimens or biological material that might survive and subsequently reproduce.		
7.3	**Indicator**: Allowance for siting in National Protected Areas [52] **Requirement:** None [53,54] **Applicability:** All except as noted in 53 and 54	**Instruction to Clients for Indicator 7.3 - Exceptions to Requirements that Suppliers (fry/fingerlings) are not Sited in National Protected Areas** For the purposes of implementing Indicator 7.3, the ASC Freshwater Trout Standard defines a protected area as "a clearly defined geographical space, recognized, dedicated and managed through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values [52]." The following exceptions shall be made for Indicator 7.3: Exception #1: An exception is made for protected areas that are classified by the International Union for Conservation of Nature (IUCN) as Category V or VI. These are areas preserved primarily for their landscapes, or areas that include sustainable resource management [53]. Exception #2: Where farms clearly pre-date the estabishment of protected areas, the farm must demonstrate that the hatchery/fingerling operation is compatible with the objectives of the protected area, and that it is in compliance with any relevant conditions placed on the supplier by authorities as a result of the protected designation [54]. The burden of proof is placed on the farm to demonstrate that its supplier is not negatively impacting the core reason an area has been protected. Where a supplier is sited in a protected areas that does not have formal national recognition (e.g. within a regionally-designated protected area), the farm producer should provide the CAB with a rationale showing how the supplier's operation is compatible with the objectives of that protected area (as in Exception #2 above). Note: If a supplier of fingerlings or eggs has previously undertaken an independent assessment of biodiversity impact as part of the regulatory permitting process, the farm may use such documents as evidence to demonstrate the supplier's compliance with Indicator 7.3.	
		a. Obtain from suppliers of fingerlings and eggs a map showing the location of the operation relative to nearby protected areas as defined federally/at the National level.	A. Review map and cross-check against supplier location.
Footnote	[52] A protected area is "A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values." Source: Dudley, N. (Editor) (2008), Guidelines for Applying Protected Area Management Categories, Gland, Switzerland: IUCN. x + 86pp.		
Footnote	[53] An exception is made for protected areas that are classified by IUCN, or the International Union for Conservation of Nature, as Category V or VI. These are areas preserved primarily for their landscapes, or areas that include sustainable resource management. Details can be found here: http://www.iucn.org/about/work/programmes/pa/pa_products/wcpa_categories/.		
Footnote	[54] An exception is also made for farms located in protected areas that are designated as such after the farm already exists in that location. In these situations, the farm must demonstrate that its operation is compatible with the objectives of the newly protected area, and that it is in compliance with any relevant conditions placed on the farm as a result of the designation.		
	Indicator: Evidence of an assessment of the property for the presence of species listed on the International Union for	Note: Under Indicator 7.4, farms are required to have evidence showing that their fingerling and egg suppliers have had an assessment done for the presence of IUCN red listed species near the supplier's site (as described for Indicator 2.1.3). Suppliers may perform this assessment internally (i.e. done by the supplier) or they may have the assessments done by third-party entities. If the supplier hires a third-party entity to conduct the assessment, farms must request evidence that the work was done by suitably qualified professionals (e.g. academic ecologist or environmental consultant).	

7.4	Conservation of Nature (IUCN) “Red List of Threatened Species” as vulnerable, near threatened, endangered or critically endangered; an evaluation of the farm’s impact on any such species present; and clearly defined mitigation measures to reduce any negative impacts and allow existence of such species **Requirement:** Yes **Applicability:** All	a. Prepare a letter informing egg and fingerling suppliers that the supplier must compile a list of IUCN Red Listed species in the relevant categories that may occur on their property following the instructions in Indicator 2.1.3.	A. Verify that the farm sent a letter to egg and fingerling supplier(s) informing them of requirements to compile the list outlined in 7.4a.
		b. Obtain from egg and fingerling suppliers a "risk assessment" (search and mitigation plan) that evaluates how the supplier's operation impacts on any IUCN Red Listed species identified in 7.4a. The risk assessment may be done by the supplier or it may be performed by an academic ecologist or environmental consultant.	B. Verify that the farm has a copy of the risk assessment produced on behalf of the egg and fingerling suppliers and that this assessment covers the species listed in 7.4a.
		c. Obtain from egg and fingerling suppliers a copy of the supplier's ETP species response plan and protocols based on the findings of the risk assessment.	C. Verify that the farm has a copy of the egg and fry supplier(s) response plan and protocols.
7.5	**Indicator**: Evidence that the egg and fingerling producer must have an equivalent or better health status than that of the grow-out facility, and must follow all national and local (jurisdictional) guidance on disease management **Requirement:** Yes **Applicability:** All	a. Obtain a written statement from egg and fingerling producers detailing the applicable national and local disease regulations and guidance on disease management which the supplier follows.	A. Verify that the farm has a written statement from the egg and fingerling producer detailing how the supplier conforms to applicable national and local regulations and guidance on disease management.
		b. Prepare a letter informing egg and fingerling producers that they must evaluate eggs and fry using health status metrics developed by the farm's veterinary health professional (see 4.1.2a).	B. Verify that the farm has a copy of the letter informing its suppliers of health status metrics developed by the farm's veterinary health professional.
		c. Maintains records of the farm's evaluations of the condition of eggs and fingerlings upon delivery.	C. Verify that the farm keeps records of evaluating the condition of eggs and fingerlings for each delivery.
7.6	**Indicator**: Evidence of disclosure to the grow-out farm of all chemical and antibiotic treatments on eggs and fry, including the reason for their use and the quantity used **Requirement:** Yes **Applicability:** All	a. Prepare a letter informing egg and fry suppliers that they must disclose all chemical and antibiotic treatments on eggs and fry, along with stated rationale and the quantity used (see Indicator 7.1c).	A. Verify that the farm has informed its suppliers that they must disclose information on chemical and antibiotic treatments together with the rationale for their use.
		b.Optional: Farm may conduct voluntary set tests on a subsample of eggs and fry for each stocking event, to test for chemical and antibiotic use consistent with the supplier's declaration.	B. Auditor includes in the audit report whether the farm has chosen to conducted chemical and antibiotic test on a subset of samples for each major stocking event.
7.7	**Indicator**: Allowance for the use of therapeutic treatments, including antibiotics or other treatments, that are banned under European Union (EU) law **Requirement:** Not permitted **Applicability:** All	a. Inform egg and fry suppliers in writing that the farm will not purchase from suppliers using any therapeutants or antibiotics that are banned under EU law.	A. Verify that the farm has a record of the statement sent to egg and fry suppliers.
		b. Compare any results from 7.6b to the farm's EU banned list (see 4.2.2a) to show that the egg and fry suppliers do not use banned chemicals.	B. Include a statement in the audit report describing a) whether the farm undertook optional testing of their supplier's fry/fingerlings and b) findings against the EU banned list, if any
7.8	**Indicator**: Presence of a fish health management plan implemented in agreement with the facility’s designated veterinarian **Requirement:** Yes **Applicability:** All	a. For every supplier of fry and egg to the farm, obtain a copy of the supplier's Fish Health Management Plan (FHMP).	A. Verify that the farm obtains a FHMP from each supplier of egg and fry.
		b. Ensure that the egg and fry supplier's FHMP is reviewed and updated at least annually with signatures by management indicating approval.	B. Verify that the farm has record that supplier management approves review and update of the FHMP at least annually.
		c. Ensure that the egg and fry supplier's designated veterinarian reviews and approves the FHMP annually and after each update of the FHMP, by signature.	C. Confirm that the farm has supplier documentation showing signature and date of review by designated veterinarian.
7.9	**Indicator:** Evidence of company-level policies and procedures that demonstrate the company's commitment to each of the 8 key ILO labor issues described in Principle 6 **Requirement:** Yes **Applicability**: All	a. For suppliers identified in 2.4.1a, obtain a copy of the supplier's company-level policies and procedures relating to key ILO labor issues.	A. Verify that farm obtains copies of relevant company-level policies and procedures fromsuppliers.
		-	B. Review supplier policies and procedures (copy provided by the farm) to verify the supplier's commitment to address each of the 8 key ILO labor issues.

7.10	**Indicator**: Evidence of regular communication, engagement and consultation with surrounding communities **Requirement:** Yes **Applicability:** All	Note: see compliance criteria for Indicator 6.9.2.	
		a. Ensure that the farm obtains documentary evidence from egg and fry suppliers of regular communciations with surrounding community as described under 6.9.2a, 6.9.2b, 6.9.2c and 6.9.2d	A. Examine copies of records and documentary evidence (e.g. meeting agenda, minutes, report) to verify that the farm's suppliers performed community consultations in complance with requirements.