



# Aquaculture Stewardship Council Audit Report for Farms Salmon

## Lerøy Aurora AS

Date:	20. - 22. nov. 2013	By:	BUREAU VERITAS Certification - Denmark - oldenborggade 2, 7000 Fredericia
CLIENT :	Lerøy Aurora	ASSESSORS TEAM :	Irene Watten, ASC Lead Auditor, Stine Josefson, LA SA 8000
MAIN CONTACT (Audited person):	Gudrun Gunnarsdottir	REPORT WRITING DATE :	20.11.2013 - 25.01.2014
REPORT REFERENCE :	ASC	REPORT REVIEWING DATE :	
LEAD ASSESSOR :	Irene Watten		
ASSESSMENT / MISSION	INITIAL		X
	SURVEILLANCE		
	COMPLEMENTARY /SUPPLEMENTARY		

### 1. Summary:

The audit report shows the results from the ASC Salmon Standard audit of Lerøy Aurora, on Solheim seafarm in Kalsøy Community. The audit was performed in three days. The first audit day was performed onsite on the seafarm with interviews of all the employees. It was focused on the practical part on the site and review of documentation, processes and handling of equipment. Cap. 6 and the social part: Auditor was given access to all wanted places, employees and data. Confidential interviews was allowed and it was the auditors understanding that the interviewed employees answered questions without fear for reprisals. In general very good attention on H&S matters. No signs of discriminations, forced labour, child labour, physical or mental press. Free choice of membership of unions etc. Confidential interviews are performed with three employees who was working at the audit day. In general was the interviewed employees very satisfied by working in the company and would all recommend a job in the company for a good friend. The interviews of the employees onsite 21. January, since it was impossible before. Day two and three of the audit was performed in the head office for Lerøy Aurora in Tromsø, since it was much easier to get the necessary documentation and competence there. The results of the audit are 10 major non-conformities and 19 minor non-conformities. They are documented and described in the non-conformity report

### 2. Background on the Applicant Farm:

Solheim seafarm, licence number 27476 is an on-growing farm for Atlantic Salmon from smolt and until the salmon is ready for slaughtering. The farm is located in Lyngenfjorden in Karlsøy Community in Troms County. See [www.Fiskeridirektoratet.no/akvakulturregisteret](http://www.Fiskeridirektoratet.no/akvakulturregisteret) .

### 3. Scope:

STANDARD	ASC Salmon Standard Version 1.0 - June 2012
Activity & scope of the audit:	Activities at Solheim seafarm location is farming of salmon from smolt to harvest in circular cages in sea. Control of the fish as well as feeding, is managed from a station, close to the cages. The plant has a land base containing office and storage, where employees are changing clothes before entering the station. The location has a MTB (Maximal Allowed Biomass) of 3600 tons salmon.
Species :	Atlantic Salmon (Salmo Salar)
Description of receiving water body :	The site is placed in Karlsøy Community, as the one seafarm is this fjord. The nearest other seafarm also belongs to Lerøy Aurora and is placed in Kåfjorden. th

**4. Audit Plan:**

Desk reviews and other activities undertaken before or after any site visits.

Documentation review in nov.2013

Stakeholder submissions, including written or other documented information and CAB written responses to each submission.

Sites of the Company concerned by the ASC. <b>For each site show:</b>	Name of site :	Solheim
	Address :	Strandveien 106, 9006 Tromsø, Norway
	Contact :	Gudrun Gunnarsdottir
	Names and affiliations of individuals consulted or otherwise involved in the audit (representatives of the client, employees, contractors, stakeholders and any observers that participated in the audit):	Renate Larsen: CEO Lerøy Aurora, Gudrun Gunnarsdottir: Quality Coordinator, Hugo Nilsen: Resp. Production, Bjørn Broks: Site Managers, Bjørn Michalsen: Site manager, Jørgen Waltenberg: Operator, Marita Gundersen: Operator, Håvard Hårstad: Fish health Manager, Erik Monsen: Responsible Fiskehelth, Roy Tore Rikhardsen: Production Manager.
Date & Duration of the visit :	The audit on the site Solheim: 20.11.2013, Audit and document review in the head office of Lerøy Aurora: 21.11.2013, Audit and document review of smolt supplier: 22.11.2013	

**Previous Audits (if applicable):**

No ASC audit is performed in this site before. For Lerøy Aurora there has been audit in Årøya and Gourtesjohka.

**5. Findings**

	PREVIOUS ASSESSMENTS REVIEW			CURRENT ASSESSMENT CONCLUSION		
	Number	NON-CONFORMANCES REFERENCES	Open/closed	Number	NON-CONFORMANCES REFERENCES	Open /closed
<b>Observations</b>	NA	NA	NA	-		
<b>Minor NC</b>	NA	NA	NA	19		Open
<b>Major NC</b>	NA	NA	NA	10		Open

Summary of Conditions :

Lerøy Aurora has a robust and well implemented quality system, which cover the whole organization from smolt to finished slaughtered fish. The company is certified for GlobalGAP in the whole chain of custody. The audit was performed at Solheim farm and Lerøy Aurora head office in Tromsø. Laksefjord smolt farm was not visit during audit. Lerøy Aurora is a company showing enthusiasm towards their employees, concerning health, environment and safety, social requirements and Norwegian laws. There was not during audit, found non-conformities regarding industrial accidents. The farm is managed with actual documentations and employees are well trained in internal procedures. There is a high level in the whole company to achieve knowledge and continuous education of employees. During interview of employees was found that the work with ASC standard was met with a favorable reception. The actual pre-audit data was available before audit, as well as all documents and quality system was available for auditors.

**7. Non-conformity Report(s)***Please see non-conformity reports attached*

## **8. Determination of the start of the CoC**

It will be necessary with COC certification from the point where the direct control of the fish is changed. This happens when the fish is moved from the wellboat and are pumped into the waiting cages. The fish will at that time be covered by the COC - ASC Salmon Standard for the slaughterhouse. The fish is held in the waiting cages for 1 - 2 days. Then it will be pumped into the slaughterhouse sedated and bled before it is graded and further processed or directly packed. These operations are performed in the slaughterhouse belonging to Lerøy Aurora on Skjervøy.

### **Determination of the eligibility of aquaculture products to enter further Chains of Custody and the points at which they can enter**

Evaluation of the system of tracking, tracing and segregation in the aquaculture operation is sufficient to make sure all aquaculture products identified and sold as certified by the operation originate from the unit of certification certified

Item	Risk Level			comments of the auditor and evidences
	Low risk	Medium risk	high risk	
1. The tracking, tracing and segregation systems in use	x			Lerøy Aurora is certified for Globalgap
2. The opportunity of substitution of certified with non-certified product prior to and at harvesting	x			Low risk for substitution
3. The possibility of introducing product from outside the unit of certification		x		Slaughtering of salmon who comes from some of the externally smolt producers
4. The robustness of the applicant or certificate holders' management system	x			Robust management system
5. Any transshipment activities taking place	x			The wellboat is subcontracted - hired for only L.Aurora
6. Any subcontracted post-harvest handling or processing	x			There are slaughtered fish from only one waiting cage at a time
Advice of the auditor	YES	NO	JUSTIFICATION	
the systems are sufficient, aquaculture products from the operation may enter into further certified chains of custody and be eligible to carry the ASC label.	x			
<i>Describe points of change of ownership after which chain of custody certification is needed</i>	From the point where the fish is landed into the waiting cage belonging to the slaughterhouse there is a change. That makes it necessary with a COC certification for the slaughterhouse belonging to Lerøy Aurora			

### **Confidential data for commercially sensitive information**

*This report do not contain confidential annexes for commercially sensitive information.  
Bureau Veritas had been agree the content of commercially sensitive information with the applicant.*

### **Signature - Approval**

Signature of the client

Signature of the auditor

**CERTIFICATION DECISION**

Certification status of the applicant:	SOLHEIM. A certificate has been issued for the scope specified in the section "scope" above in the report . Any outstanding non-conformities and their status are listed in the section "Findings" above in the report
Date of issuing of Certificate:	07/04/2014
Date of expiring:	06/04/2017
Scope of the certificate:	Aquaculture operations for salmon
List of all outstanding non-conformities:	All major and minor non-conformities were closed by 17 Februar 2014

Audit Manual - ASC Salmon Standard Created by the Salmon Aquaculture Dialogue Scope: species belonging to the genus <i>Salmo</i> and <i>Oncorhynchus</i>		376	9	22	125		
Preamble: In order to determine the level of compliance against the ASC Salmon Standard it is essential to use information of completed crop cycle(s), or on a specific point in time in the crop (e.g. stocking) for several requirements. For this reason, for first audits, it is necessary for farms to present full data on at least one or more completed crop cycle(s) per site at the time of the assessment.		CONFIRMITY				COMMENTS - RATIONALE	
PRINCIPLE 1: COMPLY WITH ALL APPLICABLE NATIONAL LAWS AND LOCAL REGULATIONS		C	Major NC	Minor NC	NA		
Criterion 1.1 Compliance with all applicable local and national legal requirements and regulations							
		Compliance Criteria (Required Client Actions):		Auditor Evaluation (Required CAB Actions):			
1.1.1	<b>Indicator:</b> Presence of documents demonstrating compliance with local and national regulations and requirements on land and water use  <b>Requirement:</b> Yes  <b>Applicability:</b> All	a. Maintain digital or hard copies of applicable land and water use laws.	A. Review compliance with applicable land and water use laws.	1			F.dir. dt 28.2.2013, Solheim. Licence 27476 Mattilsynet, discharge permit 3600 tons, MTB, dt.21.01. 2013
		b. Maintain original (or legalised copies of) lease agreements, land titles, or concession permit on file as applicable.	B. Confirm client holds original (or legalised copies of) lease agreements or land titles.	1			Confirm original agreements.
		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. Review inspection records for compliance with national and local laws and regulations (as applicable).	1			Doc. Records from F.dir., and Mattilsynets inspections on the site
		d. Obtain permits and maps showing that the farm does not conflict with national preservation areas.	D. Verify facility does not conflict with national preservation areas and has required operational permits if sited in such an area (see 2.4.2).	1			F. Dir map service and GPS documented. No conflict with preservation areas
1.1.2	<b>Indicator:</b> Presence of documents demonstrating compliance with all tax laws  <b>Requirement:</b> Yes  <b>Applicability:</b> All	a. 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.	A. Verify client has records of tax payments to appropriate authorities. Do not disclose client tax information which is confidential. An independently audited company annual report may be used to confirm tax status.	1			Statement from Kemneren, paid taxis 17.9.2013, Skatteetaten: 17.09.2013,
		b. Maintain copies of tax laws for jurisdiction(s) where company operates.	B. Confirm client has a basic knowledge of tax requirements for farm.	1			See above
		c. Register with national or local authorities as an "aquaculture activity".	C. Verify client is registered with local or national authorities.	1			Brønnøysundregisteret: Statement licence for L.Aurora:05.08.2013
1.1.3	<b>Indicator:</b> Presence of documents demonstrating compliance with all relevant national and local labor laws and regulations  <b>Requirement:</b> Yes  <b>Applicability:</b> All	a. Maintain copies of national labor codes and laws applicable to farm (scope is restricted to the farm sites within the unit certification.)	A. Confirm client has specified documentation.	1			Arbeidsmiljøloven: Lovdata: Lov 2005-06-17 nr. 62
		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. Review inspection records for compliance with national labor laws and codes (as applicable).	1			Inspection reports: Mattilsynet21.01.2013, F.dir: 01.07.2011
1.1.4	<b>Indicator:</b> Presence of documents demonstrating compliance with regulations and permits concerning water quality impacts  <b>Requirement:</b> Yes  <b>Applicability:</b> All	a. Obtain permits for water quality impacts where applicable.	A. Verify that client obtains permits as applicable.	1			EU Vanddirektiv (2000/60/EF) Mattilsynet, Discharge permit 600 tons
		b. Compile list of and comply with all discharge laws or regulations.	B. Review evidence of compliance with discharge laws or regulations.	1			As doc. Above
		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			Records from F.dir., and Mattilsynets inspections on the site and Internally registrations from production.
PRINCIPLE 2: CONSERVE NATURAL HABITAT, LOCAL BIODIVERSITY AND ECOSYSTEM FUNCTION							
Criterion 2.1 Benthic biodiversity and benthic effects [1]							
Footnote [1] Closed production systems that can demonstrate that they collect and responsibly dispose of > 75% of solid nutrients from the production system are exempt from standards under Criterion 2.1. See Appendix V for requirements on transparency for clients and CABs on Criterion 2.1.4 documentation of the benthic sampling methodology. For farms located in a jurisdiction where specific benthic sampling locations are required under law, clients may request to modify the benthic sampling methodology prescribed in Appendix I-1 to allow for sampling at different locations and/or change in the total number of samples. Under indicator 2.1.1, farms can choose to measure redox potential (Option #1) or sulphide concentration (Option #2). Farms do not have to demonstrate that they meet both threshold values.		Compliance Criteria (Required Client Actions):		Auditor Evaluation (Required CAB Actions):			
2.1.1	<b>Indicator:</b> Redox potential or [2] sulphide levels in sediment outside of the Allowable Zone of Effect (AZE) [3], following the sampling methodology outlined in Appendix I-1  <b>Requirement:</b> Redox potential > 0 millivolts (mV) or Sulphide ≤ 1,500 microMoles / l  <b>Applicability:</b> All farms except as noted in [1]	a. Prepare a map of the farm showing boundary of AZE (30 m) and GPS locations of all sediment collections stations. If the farm uses a site-specific AZE, provide justification [3] to the CAB.	A. Review map to verify appropriate siting of sampling stations (Appendix I-1) and evidence (if applicable) to justify use of a site specific AZE.	1			A map showing sampling stations according to Appendix I-1
		b. If benthos throughout the full AZE is hard bottom, provide evidence to the CAB and request an exemption from 2.1.1c-f, 2.1.2 and 2.1.3.	B. Review evidence of benthic type and confirm whether to proceed to 2.1.1c.	1			The benthos throughout the whole AZE is not hard bottom
		c. Inform the CAB whether the farm chose option #1 or option #2 to demonstrate compliance with the requirements of the Standard.	C. Record which option the client chose.	1			The farm choose option #1, analyze of redox potential
		d. Collect sediment samples in accordance with the methodology in Appendix I-1 (i.e. at the time of peak cage biomass and at all required stations).	D. Review documentary evidence (notes, GPS coordinates) showing sampling time, stations, and frequency. Cross-check against farm maps and harvest records.	1			Samples from the 11 stations has been sampled 21.9.2013, and sent for analyze to FiskeLiv AS
		e. For option #1, measure and record redox potential (mV) in sediment samples using an appropriate, nationally or internationally recognized testing method.	E. Review results to verify that redox potential of sediments complies with the requirement at each sampling station outside the AZE. Confirm that the testing method used by the farm is appropriate.		1		Results are not finished
		f. For option #2, measure and record sulphide concentration (uM) using an appropriate, nationally or internationally recognized testing method.	F. Review results to verify that sulphide concentration in sediments complies with the Standard at each sampling station outside the AZE. Confirm that the testing method used by the farm is appropriate.			1	
		g. Submit test results to ASC as per Appendix VI at least once for each production cycle. If site has hard bottom and cannot complete tests, report this to ASC.	G. Confirm that client has submitted test results to ASC (Appendix VI).			1	Results are not sent to ASC
Footnote [2] Farm sites can choose whether to use redox or sulphide. Farms do not have to demonstrate that they meet both.							
Footnote [3] Allowable zone of Effect (AZE) is defined under this standard as 30 meters. For farm sites where a site-specific AZE has been defined using a robust and credible modeling system such as the SPA AOTDLP OMOD and verified through monitoring, the site-specific AZE shall be used.							
Notes: Under indicator 2.1.2, farms can choose one of four measurements to show compliance with the faunal index Requirement: AMPL (Option #1); Shannon-Wiener Index (Option #2); PDI (Option #3); or Benthic Index (Option #4).							
	a. Prepare a map showing the AZE (30 m or site specific) and sediment collections stations (see 2.1.1).	A. Review map to verify appropriate siting of sampling stations (see 2.1.1).	1			A map showing sampling stations according to Appendix I-1	



2.1.2	<p><b>Indicator:</b> Faunal index score indicating good [4] to high ecological quality in sediment outside the AZE, following the sampling methodology outlined in Appendix I-1</p> <p><b>Requirement:</b> AZTI Marine Biotic Index (AMBI [5]) score ≤ 3.3, or Shannon-Wiener Index score &gt; 3, or Benthic Quality Index (BQI) score ≥ 15, or Infaunal Trophic Index (ITI) score ≥ 25</p> <p><b>Applicability:</b> All farms except as noted in [1]</p>	b. Inform the CAB whether the farm chose option #1, #2, #3, or #4 to demonstrate compliance with the requirement.	B. Record which option the client chose for scoring faunal index.	1			The farm choose option #2, Shannon-Wiener Index score
		c. Collect sediment samples in accordance with Appendix I-1 (see 2.1.1).	C. Confirm sample collection followed Appendix I-1 (see 2.1.1).	1			Samples from the 11 stations has been sampled 21.9.2103, and sent for analyze
		d. For option #1, measure, calculate and record AZTI Marine Biotic Index [5] score of sediment samples using the required method.	D. Review results (as applicable) to verify that AMBI score of sediments is ≤ 3.3 at each sampling station outside the AZE.			1	results are not ready at audit
		e. For option #2, measure, calculate and record Shannon-Wiener Index score of sediment samples using the required method.	E. Review results (as applicable) to verify that Shannon Wiener score of sediments is > 3 at each sampling station outside the AZE.		1		Results are not ready
		f. For option #3, measure, calculate and record Benthic Quality Index (BQI) score of sediment samples using the required method.	F. Review results (as applicable) to verify that BQI score of sediments is ≥ 15 at each sampling station outside the AZE.				Results are reviewd
		g. For option #4, measure, calculate and record Infaunal Trophic Index (ITI) score of sediment samples using the required method.	G. Review results (as applicable) to verify that ITI score of sediments is ≥ 25 at each sampling station outside the AZE.			1	Results are not ready
		h. Retain documentary evidence to show how scores were obtained. If samples were analyzed and index calculated by an independent laboratory, obtain copies of results.	H. Confirm that an approved method was used or that a qualified independent laboratory performed the sampling and calculation of faunal index.		1		Results are not ready
	i. Submit faunal index scores to ASC (Appendix VI) at least once for each production cycle.	I. Confirm that client submitted faunal index scores to ASC (Appendix VI).			1	Results are not sent to ASC	
Footnote	[4] "Good" Ecological Quality Classification: The level of diversity and abundance of invertebrate taxa is slightly outside the range associated with the type-specific conditions. Most of the sensitive taxa of the type-specific communities are present.						
Footnote	[5] <a href="http://www.azti.es/en/ambi-azti-marine-biotic-index.html">http://www.azti.es/en/ambi-azti-marine-biotic-index.html</a> .						
2.1.3	<p><b>Indicator:</b> Number of macrofaunal taxa in the sediment within the AZE, following the sampling methodology outlined in Appendix I-1</p> <p><b>Requirement:</b> ≥ 2 highly abundant [6] taxa that are not pollution indicator species</p> <p><b>Applicability:</b> All farms except as noted in [1]</p>	a. Document appropriate sediment sample collection as for 2.1.1a and 2.1.1c, or exemption as per 2.1.1b.	A. Confirm appropriate sediment sample collection as for 2.1.1a and 2.1.1c or exemption as per 2.1.1b.	1			Sediment sample collection as for 2.1.1a and 2.1.1c
		b. For sediment samples taken within the AZE, determine abundance and taxonomic composition of macrofauna using an appropriate testing method.	B. Confirm that an appropriate method was used or that a suitably qualified independent laboratory performed the analysis.		1		Results are not ready
		c. Identify all highly abundant taxa [6] and specify which ones (if any) are pollution indicator species.	C. Confirm that all samples from within the AZE have ≥ 2 highly abundant [6] taxa (exclusive of pollution indicator species).		1		Results are not ready
		d. Retain documentary evidence to show how taxa were identified and how counts were obtained. If samples were analyzed by an independent lab, obtain copies of results.	D. Confirm that a suitable method was used or that a suitability qualified independent laboratory performed the scoring of faunal index.			1	Results are not ready
		e. Submit counts of macrofaunal taxa to ASC (Appendix VI) at least once for each production cycle.	E. Confirm that client has submitted scores to ASC (Appendix VI).			1	Results are not sent to ASC
Footnote	[6] Highly abundant: Greater than 100 organisms per square meter (or equally high to reference site(s) if natural abundance is lower than this level).						
2.1.4	<p><b>Indicator:</b> Definition of a site-specific AZE based on a robust and credible [7] modeling system</p> <p><b>Requirement:</b> Yes, within three years of the publication [8] of the SAD standard (i.e. full compliance by June 13, 2015)</p> <p><b>Applicability:</b> All farms except as noted in [1]</p>	Note: Farms may define a site-specific AZE at any time before this date as long as they demonstrate full compliance by June 13, 2015.					
		a. Undertake an analysis to determine the site-specific AZE and depositional pattern before 3 years have passed since publication of the Standard on June 13, 2012.	A. Review documentation to confirm that the farm has undertaken an analysis before the required date.			1	
		b. Maintain records to show how the analysis (in 2.1.4a) is robust and credible based on modeling using a multi-parameter approach [7].	B. Confirm that the farm used a robust and credible modeling system to define the site-specific AZE.			1	
Footnote	[7] Robust and credible: The SEPA AOTDEP/OWD modeling system is considered to be an example of a credible and robust system. The model must include a multi-parameter approach. Monitoring must be used to ground-truth the AZE proposed through the model.						
Footnote	[8] Publication: Refers to the date when the final standards and accompanying guidelines are completed and made publicly available. This definition of publication applies throughout this document.						
<b>Criterion 2.2 Water quality in and near the site of operation [12]</b>							
		<b>Compliance Criteria (Required Client Actions):</b>			<b>Auditor Evaluation (Required CAB Actions):</b>		
Footnote	[12] See Appendix VI for transparency requirements for 2.2.1, 2.2.2, 2.2.3 and 2.2.5.						
2.2.1	<p><b>Indicator:</b> Weekly average percent saturation [13] of dissolved oxygen (DO) [14] on farm, calculated following methodology in Appendix I-4</p> <p><b>Requirement:</b> ≥ 70% [15]</p> <p><b>Applicability:</b> All farms except as noted in [15]</p>	<b>Instruction to Clients for Indicator 2.2.1 - Monitoring Average Weekly Percent Saturation of Dissolved Oxygen</b> Appendix I-4 presents the required methodology that farms must follow for sampling the average weekly percent saturation of dissolved oxygen (DO). Key points of the method are as follows:					
		a. Monitor and record on-farm percent saturation of DO at a minimum of twice daily using a calibrated oxygen meter or equivalent method. For first audits, farm records must cover ≥ 6 months.	A. Do not schedule audit until client provides a minimum of 6 months of DO data.	1			Results from registering of DO in period from 23.7.2012 until this day
		b. Provide a written justification for any missed samples or deviations in sampling time.	B. Review records for completeness and conformity with methodology in Appendix 1-4.	1			Results are complete
		c. Calculate weekly average percent saturation based on data.	C. Review calculation and confirm all weekly averages ≥ 70%.	1			Weekly averages > 70 %, seen as 110 %, 103 %, 91 %, lowest result 7,92 (82,2 %) 31.8.2012
		d. If any weekly average DO values are < 70%, or approaching that level, monitor and record DO at a reference site and compare to on-farm levels (see Instructions).	D. As needed, review DO data from reference site and document in the audit report (see instruction).	1			No weekly results < 70 %
		e. Arrange for auditor to witness DO monitoring and calibration while on site.	E. Witness DO monitoring and verify calibration while on site. On-site values should fall within range of farm data for DO. If an out of range measurement is observed, raise a nonconformity.	1			Monitoring with measuring tube placed in cage, cleaning and changing of sensor cap regular, seen for 3.8.2013
f. Submit results from monitoring of average weekly DO as per Appendix VI to ASC at least once per year.	F. Confirm that client has submitted DO results to ASC (Appendix VI).	1					
Footnote	[13] Percent saturation: Percent saturation is the amount of oxygen dissolved in the water sample compared to the maximum amount that could be present at the same temperature and salinity.						
Footnote	[14] Averaged weekly from two daily measurements (proposed at 6 am and 3 pm).						
Footnote	[15] An exception to this standard shall be made for farms that can demonstrate consistency with a reference site in the same water body.						
2.2.2	<p><b>Indicator:</b> Maximum percentage of weekly samples from 2.2.1 that fall under 2 mg/liter DO</p> <p><b>Requirement:</b> 5%</p> <p><b>Applicability:</b> All</p>	a. Calculate the percentage of on-farm samples taken for 2.2.1a that fall under 2 mg/l DO.	A. Review the farm's calculation and confirm that ≤ 5% of weekly samples fall under 2 mg/l DO.	1			No measuring samples fall under 2 mg/l DO
		b. Submit results from 2.2.2a as per Appendix VI to ASC at least once per year.	B. Confirm that client has submitted results to ASC (Appendix VI).	1			Submitted to ASC

2.2.3	<p><b>Indicator:</b> For jurisdictions that have national or regional coastal water quality targets [16], demonstration through third-party analysis that the farm is in an area recently [17] classified as having "good" or "very good" water quality [18]</p> <p><b>Requirement:</b> Yes [19]</p> <p><b>Applicability:</b> All farms except as noted in [19]</p>	a. Inform the CAB whether relevant targets and classification systems are applicable in the jurisdiction. If applicable, proceed to "2.2.3.b". If not applicable, take action as required under 2.2.4	A. Record whether indicator is applicable.	1			Water framework directive has been implemented in Norway, the quality target is that all water occurrence have good water quality before 2015
		b. Compile a summary of relevant national or regional water quality targets and classifications, identifying the third-party responsible for the analysis and classification.	B. Confirm that there has been a recent third-party analysis (within two years prior to the audit) to classify areas according to national or regional water quality targets.	1			Havforskningsinstituttet (Institute of marine research) have classifying Næringsalte N and P, chlorofyl and oxygen for estimation of condition of water
		c. Identify the most recent classification of water quality for the area in which the farm operates.	C. Confirm that the analysis and classification shows the farm is located in an area where the water quality complies with the requirement.	1			The quality classifying for area has been evaluated 66 % as presumed good, 13 % good and 7 % very good from www.vann-net.no
Footnote	[16] Related to nutrients (e.g., N, P, chlorophyll A).						
Footnote	[17] Within the two years prior to the audit.						
Footnote	[18] Classifications of "good" and "very good" are used in the EU Water Framework Directive. Equivalent classification from other water quality monitoring systems in other jurisdictions are acceptable.						
Footnote	[19] Closed production systems that can demonstrate the collection and responsible disposal of >75% of solid nutrients as well as >50% of dissolved nutrients (through denitrification, settling and/or other technologies) are exempt from standards 2.2.3 and 2.2.4						
2.2.4	<p><b>Indicator:</b> For jurisdictions without national or regional coastal water quality targets, evidence of weekly monitoring of nitrogen and phosphorous [20] levels on farm and at a reference site, following methodology in Appendix I-5</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All farms except as noted in [19]</p>	a. Develop, implement, and document a weekly monitoring plan for N, NH4, NO3, total P, and ortho-P in compliance with Appendix I-5, testing a minimum of once weekly in both locations. For first audits, farm records must cover ≥ 6 months.	A. Review the farm's monitoring plan and verify that the farm has collected monitoring data for N and P following the methodology in Appendix I-5.	1			Doc. Monitoring plan
		b. Calibrate all equipment according to the manufacturer's recommendations.	B. Verify that client calibrates equipment as needed.	1			Calibration of equipment
		c. Submit data on N and P to ASC as per Appendix VI at least once per year.	C. Confirm that client has submitted N and P data to ASC (Appendix VI).	1			Submitted to ASC
Footnote	[20] Farms shall monitor total N, NH4, NO3, total P and Ortho-P in the water column. Results shall be submitted to the ASC database. Methods such as a Hach kit are acceptable.						
2.2.5	<p><b>Indicator:</b> Demonstration of calculation of biochemical oxygen demand (BOD [21]) of the farm on a production cycle basis</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	<p><b>Instruction to Clients for Indicator 2.2.5 - Calculating Biochemical Oxygen Demand</b></p> <p>Biochemical Oxygen Demand (BOD) can be calculated based on cumulative inputs of N and C to the environment over the course of the production cycle.</p>					
		a. Collect data throughout the course of the production cycle and calculate BOD according to formula in the instruction box.	A. Review calculation, cross-check data used with feed and harvest records.	1			Calculation of BOD has been cross checked, N is calculated from protein in feed (38 %) and fish (35 %) using factor 6,25 for calculation for N, C is calculated from 45 and 12 % C in feed and fish respectively
Footnote	[21] BOD calculated as: ((total N in feed - total N in fish) * 4.57) + ((total C in feed - total C in fish) * 2.07). A farm may deduct N or C that is captured, filtered or absorbed through approaches such as IWR or through direct collection of nutrient waste. In this equation, "fish" refers to harvested fish. Reference for calculation methodology: Boyd C. 2000. Estimating mechanical aeration requirement in shrimp ponds from the oxygen demand of feed. In: Proceedings of the World Aquaculture Society Meeting, Sept.						
<p><b>Criterion 2.3 Nutrient release from production</b></p> <p style="text-align: center;"><b>Compliance Criteria (Required Client Actions):</b> <span style="float: right;"><b>Auditor Evaluation (Required CAB Actions):</b></span></p>							
2.3.1	<p><b>Indicator:</b> Percentage of fines [22] in the feed at point of entry to the farm [23] (calculated following methodology in Appendix I-2)</p> <p><b>Requirement:</b> &lt; 1% by weight of the feed</p> <p><b>Applicability:</b> All farms except as noted in [23]</p>	<p>Note: The methodology given in Appendix I-2 is used to determine the fines (dust and small fragments) in finished product of fish feed which has a diameter of 3 mm or more.</p>					
		a. Determine and document a schedule and location for quarterly testing of feed. If testing prior to delivery to farm site, document rationale behind not testing on site.	A. Review timing and location of testing. If testing off-site, verify rationale and ensure consistent with [23].	1			Feed are tested at every receiving of feed, results from 6 mm 12.2.2013 0,21 %, no result more than 1 % dust. Sieve calibrated 18.3.2011 regarding visual and size
		b. If using a sieving machine, calibrate equipment according to manufacturer's recommendations.	B. Verify that client has appropriate testing technology on site and that, if applicable, it is calibrated as required.	1			Apparatus with Retsch sieve, has been calibrated 18.3.2011 regarding visual and size
Footnote	[22] Fines: Dust and fragments in the feed. Particles that separate from feed with a diameter of 3 mm or less when sieved through a 1 mm sieve, or particles that separate from feed with a diameter greater than 3 mm when sieved through a 2.50 mm sieve.						
Footnote	[23] To be measured every quarter or every three months, samples that are measured shall be chosen randomly. Feed may be sampled immediately prior to delivery to farm or sites with no feed storage where it is not possible to sample on farm. Closed production systems that can demonstrate the collection and responsible disposal of > 75% of solid nutrients and > 50% of dissolved nutrients (through biofiltration, settling and/or other technologies) are exempt.						
<p><b>Criterion 2.4 Interaction with critical or sensitive habitats and species</b></p> <p style="text-align: center;"><b>Compliance Criteria (Required Client Actions):</b> <span style="float: right;"><b>Auditor Evaluation (Required CAB Actions):</b></span></p>							
2.4.1	<p><b>Indicator:</b> Evidence of an assessment of the farm's potential impacts on biodiversity and nearby ecosystems that contains at a minimum the components outlined in Appendix I-3</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	<p>Note: If a farm has previously undertaken an independent assessment of biodiversity impact (e.g. as part of the regulatory permitting process), the farm may use such documents as evidence to demonstrate compliance with Indicator 2.4.1 as long as all components in Appendix I-3 are explicitly covered.</p>					
		a. Perform (or contract to have performed) a documented assessment of the farm's potential impact on biodiversity and nearby ecosystems. The assessment must address all components outlined in Appendix I-3.	A. Review the assessment to confirm that it complies with all components outlined in Appendix I-3.	1			There is a MOMB analyse from Solheim, state 1. Risk assessment from Havforskningsinstituttet for impact of habitats and species
		b. If the assessment (2.4.1a) identifies potential impact(s) of the farm on biodiversity or nearby critical, sensitive or protected habitats or species, prepare plan to address those potential impacts.	B. Verify the farm has a plan to address all potential impacts identified in the assessment.	1			There is environmental assessment from Havforskningsinstituttet for impact from lice and lice treatment. No species listed on IUCN list
Footnote	c. Keep records to show how the farm implements plan(s) from 2.4.1b to minimize potential impacts to critical or sensitive habitats and species.						
Footnote	C. Verify that the farm implements the plan(s).						
				1			There are no special plan for area Solheim



		<b>Instruction to Clients for Indicator 2.4.2 - Exceptions to requirements that farms are not sited within Protected Areas or HCVA's</b> The following exceptions shall be made for Indicator 2.4.2:						
2.4.2	<b>Indicator:</b> Allowance for the farm to be sited in a protected area [24] or High Conservation Value Areas [25] (HCVAs) <b>Requirement:</b> None [26] <b>Applicability:</b> All farms except as noted in [26]	a. Provide a map showing the location of the farm relative to nearby protected areas or High Conservation Value Areas (HCVAs) as defined above (see also 1.1.1a).	A. Review map and cross-check against independent information sources (e.g. 1.1.1d) to determine if the farm is sited in a protected area or HCVA.	1				A map was shown, Solheim is not in a protected area or HCVA
		b. If the farm is <b>not</b> sited in a protected area or High Conservation Value Area as defined above, prepare a declaration attesting to this fact. In this case, the requirements of 2.4.2c-d do not apply.	B. Obtain a copy of the farm's declaration stating that the farm is not sited in a protected area or HCVA (as applicable).	1				There is a declaration from farm
		c. If the farm <b>is</b> sited in a protected area or HCVA, review the scope of applicability of Indicator 2.4.2 (see Instructions above) to determine if your farm is allowed an exception to the requirements. If yes, inform the CAB which exception (#1, #2, or #3) 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 2.4.2 is not applicable.	1			NA	
		d. If the farm is sited in a protected area or HCVA and the exceptions provided for Indicator 2.4.2 <b>do not apply</b> , 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 or HCVA and hence eligible for ASC certification.	1			NA	
Footnote	[24] Protected area: "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). <i>Guidelines for Applying Protected Area Management Categories</i> . Gland, Switzerland: IUCN, p. 18.							
Footnote	[25] High Conservation Value Areas (HCVAs): Natural features where conservation values are considered to be of outstanding significance or critical importance. HCVAs are designated through a multi-stakeholder approach that provides a systematic basis for identifying and managing areas of high conservation value, and for planning ecosystem management in order to ensure that these high conservation values are maintained or enhanced ( <a href="http://www.bvnetwork.org/">http://www.bvnetwork.org/</a> )							
Footnote	[26] The following exceptions shall be made for Indicator 2.4.2: a. For protected areas classified by the International Union for the Conservation of Nature (IUCN) as Category V or VI (these are areas preserved primarily for their landscapes or for sustainable resource management).							
<b>Criterion 2.5 Interaction with wildlife, including predators [27]</b>								
		<b>Compliance Criteria (Required Client Actions):</b>		<b>Auditor Evaluation (Required CAB Actions):</b>				
Footnote	[27] See Appendix VI for transparency requirements for 2.5.2, 2.5.5 and 2.5.6.							
2.5.1	<b>Indicator:</b> Number of days in the production cycle when acoustic deterrent devices (ADDs) or acoustic harassment devices (AHDs) were used <b>Requirement:</b> 0, within three years of the date of publication [28] of the SAD standard (i.e. full compliance by June 13, 2015) <b>Applicability:</b> All	a. Prepare a written statement affirming that the farm's management is committed to eliminate all usage of acoustic deterrent devices (ADDs) or acoustic harassment devices (AHDs) by June 13, 2015.	A. Confirm that farm management has prepared a written statement of commitment.	1				There is a declaration from farm
		b. Compile documentary evidence to show that no ADDs or AHDs were used by the farm after June 13, 2015 (applicable only after the specified date).	B. Review documentary evidence (e.g. predator management policies, records of predator incidents) and cross-check against interviews with farm staff and local community members (applicable only after the date specified in 2.5.1a).	1				
		-	C. During the on-site audit, inspect the farm to confirm that no ADDs or AHDs are present at the facilities (applicable only after June 13, 2015).	1				There is no use of ADD or AHD at time of audit
Footnote	[28] Publication: Refers to the date when the final standards and accompanying guidelines are completed and made publicly available. This definition of publication applies throughout this document.							
		<b>Instruction to Clients for Indicator 2.5.2 - Percentage of Days that ADDs or AHDs were used</b> Farms must calculate the percentage of days in the production cycle that ADDs or AHDs were operated using data from the most recent complete production cycle. For first audits, farms						
2.5.2	<b>Indicator:</b> Prior to the achievement of 2.5.1, if ADDs or AHDs are used, maximum percentage of days [29] in the production cycle that the devices are operational <b>Requirement:</b> ≤ 40% <b>Applicability:</b> All, until June 13, 2015	a. Maintain a log for the use of any ADDs or AHDs on farm that includes recording the number of days (24-hour cycles) during which the devices were used.	A. Review log and cross-check with records of predator incidents.				1	No use of ADD or AHD
		b. Calculate the percentage of days in the production cycle that the devices were operational in the most recent complete production cycle.	B. Verify calculations and cross-check against records for the duration of the production cycle.				1	
		-	C. Confirm devices were operational ≤ 40% of the days of the production cycle.				1	
		d. Submit data on number of days that ADDs/AHDs were used to the ASC as per Appendix VI. Data must be sent to ASC on an ongoing basis (i.e. at least once per year and for each production cycle).	D. Confirm that client has submitted data on ADDs/AHDs to ASC (Appendix VI).				1	
Footnote	[29] Day: 24-hour cycle.							
2.5.3	<b>Indicator:</b> Number of mortalities [30] of endangered or red-listed [31] marine mammals or birds on the farm <b>Requirement:</b> 0 (zero) <b>Applicability:</b> All	a. Prepare a list of all predator control devices and their locations.	A. Review list.	1				For bird protection, there is a net covering cages
		b. Maintain a record of all predator incidents.	B. Review farm records of predator incidents and cross-check against relevant records (e.g. escapes).	1				There has been no predator incidences, from list at farm, and no red listed animals
		c. Maintain a record of all mortalities of marine mammals and birds on the farm identifying the species, date, and apparent cause of death.	C. Review records for completeness. Cross-check mortality records against interviews with farm staff and community representatives.	1				No mortality of animals or birds
		d. Maintain an up-to-date list of endangered or red-listed marine mammals and birds in the area (see 2.4.1)	D. Review list for consistency with 2.4.1	1				No IUCN animal in area
		-	E. Compare results from (a) through (d) above to confirm that there were no mortalities of endangered or red-listed marine mammals or birds on farm.	1				No mortalities of these animal on farm
Footnote	[30] Mortalities: Includes animals intentionally killed through lethal action as well as accidental deaths through entanglement or other means.							
Footnote	[31] Species listed as endangered or critically endangered by the IUCN or on a national endangered species list.							
2.5.4	<b>Indicator:</b> Evidence that the following steps were taken prior to lethal action [32] against a predator: 1. All other avenues were pursued prior to using lethal action 2. Approval was given from a senior manager above the farm manager 3. Explicit permission was granted to take lethal action against the specific animal from the relevant regulatory authority <b>Requirement:</b> Yes [33] <b>Applicability:</b> All except cases where human safety is endangered as noted in [33]	a. Provide a list of all lethal actions that the farm took against predators during the previous 12-month period. Note: "lethal action" is an action taken to deliberately kill an animal, including marine mammals and birds.	A. Review list of lethal actions taken by the farm and cross-check against 2.5.3b.	1				No lethal actions at farm
		b. For each lethal action identified in 2.5.4a, keep record of the following: 1) a rationale showing how the farm pursued all other reasonable avenues prior to using lethal action; 2) approval from a senior manager above the farm manager of the lethal action; 3) where applicable, explicit permission was granted by the relevant regulatory authority to take lethal action against the animal.	B. Review documentation to confirm that the farm shows evidence of compliance with requirements in steps 1-3.	1				Documentation of possible lethal action in document II.1.2.15 in quality system
		c. Provide documentary evidence that steps 1-3 above (in 2.5.4b) were taken prior to killing the animal. If human safety was endangered and urgent action necessary, provide documentary evidence as outlined in [33].	C. Review documentary evidence to verify actions, permissions, and approvals were taken prior to taking lethal action. If client requests exemption due to human safety, review evidence to verify [33].	1				Actions will be documented
Footnote	[32] Lethal action: Action taken to deliberately kill an animal, including marine mammals and birds.							
Footnote	[33] Exception to these conditions may be made for a rare situation where human safety is endangered. Should this be required, post-incident approval from a senior manager should be made and relevant authorities must be informed.							
		<b>Instruction to Clients and CABs on Indicators 2.5.5, 2.5.6, and 2.5.7 - Clarification about the ASC Definition of Lethal Incident</b> The ASC Salmon Standard has defined "lethal incident" to include all lethal actions as well as entanglements or other accidental mortalities of non-salmonids (footnote 25). For the purpose of assisting farms and auditors with understanding how to evaluate compliance with indicators						
		a. For all lethal actions (see 2.5.4), keep records showing that the farm made the information available within 30 days of occurrence.	A. Check farm records for publicizing lethal actions against the actions listed in 2.5.4a to confirm that the farm made information available within 30 days.	1				There has not been lethal actions, and will be published at website



2.5.5	<p><b>Indicator:</b> Evidence that information about any lethal incidents [35] on the farm has been made easily publicly available [34]</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. For all lethal actions (see 2.5.4), keep records showing that the farm made the information available within 30 days of occurrence.	A. Check farm records for publicizing lethal actions against the actions listed in 2.5.4a to confirm that the farm made information available within 30 days.	1			There has not been lethal actions, and will be published at website
		b. Ensure that information about all lethal actions listed in 2.5.5a are made easily publicly available (e.g. on a website).	B. Verify that required information is easily publicly available.	1			There has not been lethal actions, and will be published at website <a href="http://www.leroyseafood.com/inv-estor/berekraft/matvaresikkerhet/sertifisering/">http://www.leroyseafood.com/inv-estor/berekraft/matvaresikkerhet/sertifisering/</a>
Footnote	[34] Posting results on a public website is an example of "easily publicly available." Shall be made available within 30 days of the incident and see Appendix VI for transparency requirements.						
2.5.6	<p><b>Indicator:</b> Maximum number of lethal incidents [35] on the farm over the prior two years</p> <p><b>Requirement:</b> &lt; 9 lethal incidents [36], with no more than two of the incidents being marine mammals</p> <p><b>Applicability:</b> All</p>	a. Maintain log of lethal incidents (see 2.5.4a) for a minimum of two years. For first audit, > 6 months of data are required.	A. Review log.	1			List for records of lethal actions, no lethal incidents last 6 months
		b. Calculate the total number of lethal incidents and the number of incidents involving marine mammals during the previous two year period.	B. Verify that over the previous two years there were < 9 lethal incidents in total and that ≤ 2 of those incidents were marine mammal deaths.	1			List for records of lethal actions, no lethal incidents last 6 months
		c. Send ASC the farm's data for all lethal incidents [35] of any species other than the salmon being farmed (e.g. lethal incidents involving predators such as birds or marine mammals). Data must be sent to ASC on an ongoing basis (i.e. at least once per year and for each production cycle).	C. Confirm that data on all lethal incidents has been submitted to ASC (Appendix VI).	1			
Footnote	[35] Lethal incident: Includes all lethal actions as well as entanglements or other accidental mortalities of non-salmonids.						
Footnote	[36] Standard 2.5.6 applicable to incidents related to non-endangered and non-red-listed species. This standard complements, and does not contradict, 2.5.3.						
2.5.7	<p><b>Indicator:</b> In the event of a lethal incident, evidence that an assessment of the risk of lethal incident(s) has been undertaken and demonstration of concrete steps taken by the farm to reduce the risk of future incidences</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Keep records showing that the farm undertakes an assessment of risk following each lethal incident and how those risk assessments are used to identify concrete steps the farm takes to reduce the risk of future incidents.	A. Review farm records to confirm that all the farm performs an appropriate risk assessment following all lethal incidents (see list 2.5.4a).			1	No risk assessment of lethal incidents
		b. Provide documentary evidence that the farm implements those steps identified in 2.5.7a to reduce the risk of future lethal incidents.	B. Verify that the farm implements steps to reduce risk of lethal incidents.	1			There has not been lethal incidents
<b>PRINCIPLE 3: PROTECT THE HEALTH AND GENETIC INTEGRITY OF WILD POPULATIONS</b>							
<i>Criterion 3.1 Introduced or amplified parasites and pathogens [38,39]</i>							
<b>Compliance Criteria (Required Client Actions):</b>			<b>Auditor Evaluation (Required CAB Actions):</b>				
Footnote	[38] Farm sites for which there is no release of water that may contain pathogens into the natural (freshwater or marine) environment are exempt from the standards under Criterion 3.1.						
Footnote	[39] See Appendix VI for transparency requirements for 3.1.1, 3.1.3, 3.1.4, 3.1.6 and 3.1.7.						
<i>Instruction to clients and CABs on Exemptions to Criterion 3.1</i>							
<i>According to footnote [38], farm sites for which there is no release of water that may contain pathogens into the natural (freshwater or marine) environment are exempt from the requirements under Criterion 3.1. More specifically, farms are only eligible for exemption from Criterion 3.1</i>							
3.1.1	<p><b>Indicator:</b> Participation in an Area-Based Management (ABM) scheme for managing disease and resistance to treatments that includes coordination of stocking, fallowing, therapeutic treatments and information-sharing. Detailed requirements are in Appendix II-1.</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All except farms that release no water as noted in [38]</p>	a. Keep record of farm's participation in an ABM scheme.	A. Review records of farm participation in ABM scheme. Contact other ABM participants as necessary to confirm the accuracy of client records.	1			Doc. Troms and Finnmark Fylker reg. ABM scheme, including plan for 2013. Doc. Records from Fish talk system.
		b. Submit to the CAB a description of how the ABM (3.1.1a) coordinates management of disease and resistance to treatments, including: - coordination of stocking; - fallowing; - therapeutic treatments; and - information sharing.	B. Review description of ABM to verify that the management activities address each of the four element from Indicator 3.1.1.	1			Doc. Troms and Finnmark Fylker reg. ABM scheme, vet. Reports and Fish-talk production system
		c. Provide the CAB access to documentation which is sufficient for the auditor to evaluate the ABM's compliance with all requirements in Appendix II-1, including definition of area, minimum % participation in the scheme, components, and coordination requirements.	C. Evaluate documents to confirm the ABM complies with Appendix II-1.	1			Doc. In ABM scheme, vet reports and Fish Talk
		d. Submit dates of fallowing period(s) as per Appendix VI to ASC at least once per year.	D. Confirm that client has submitted dates of fallowing periods to ASC (Appendix VI).	1			Dates submitted to ASC
3.1.2	<p><b>Indicator:</b> A demonstrated commitment [40] to collaborate with NGOs, academics and governments on areas of mutually agreed research to measure possible impacts on wild stocks</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All except farms that release no water as noted in [38]</p>	a. Retain records to show how the farm and/or its operating company has communicated with external groups (NGOs, academics, governments) to agree on and collaborate towards areas of research to measure impacts on wild stocks, including records of requests for research support and collaboration and responses to those requests.	A. Review evidence that the farm and/or its operating company has communicated with external groups to agree on areas of research about possible impacts on wild stocks and is tracking and responding to research requests.	1			Support "Stiftinga Norsk Villaksforvaltning", Bellona, Kunnskapssenter for Laks& Vannmiljø, Sintef Fiskeri og Havbruk, GSI, WWF
		b. Provide non-financial support to research activities in 3.1.2a by either: - providing researchers with access to farm-level data; - granting researchers direct access to farm sites; or - facilitating research activities in some equivalent way.	B. Review how the farm and/or its operating company has provided non-financial support for research activities.	1			Available for UNITØ, FHL, Akvaplan Niva in different projects
		c. When the farm and/or its operating company denies a request to collaborate on a research project, ensure that there is a written justification for rejecting the proposal.	C. As applicable, review the provided record of rejecting proposals to confirm that denials were justified and there is no consistent pattern to indicate that the farm and/or its operating company lacks a demonstrated commitment to collaborate on research activities.	1			Records from FOU activities for FHF, Philips, LSG
		d. Maintain records from research collaborations (e.g. communications with researchers) to show that the farm has supported the research activities identified in 3.1.2a.	D. Verify that the farm's communications with researchers demonstrate a commitment to collaborate on relevant areas of research.	1			Several research reports documented
Footnote	[40] Commitment: At a minimum, a farm and/or its operating company must demonstrate this commitment through providing farm-level data to researchers, granting researchers access to sites, or other similar non-financial support for research activities.						
3.1.3	<p><b>Indicator:</b> Establishment and annual review of a maximum sea lice load for the entire ABM and for the individual farm as outlined in Appendix II-2</p> <p><b>Requirement:</b> Yes</p>	a. Keep records to show that a maximum sea lice load has been set for: - the entire ABM; and - the individual farm.	A. Review records to confirm compliance.	1			Doc. Reports from January until week 39/40
		b. Maintain evidence that the established maximum sea lice load (3.1.3a) is reviewed annually as outlined in Appendix II-2, incorporating feedback from the monitoring of wild salmon where applicable (See 3.1.6).	B. Confirm that sea lice load is reviewed annually and, if applicable, the review incorporates information from monitoring of wild salmon.	1			Doc. In the records and in Fish-talk

			c. Provide the CAB access to documentation which is sufficient for the auditor to evaluate whether the ABM has set (3.1.3a) and annually reviewed (3.1.3.b) maximum sea lice load in compliance with requirements in Appendix II-2.	C. Evaluate documents to confirm the ABM complies with requirements of Appendix II-2 for establishing and reviewing maximum sea lice loads.	1				Doc. In the records and in Fish-talk	
			d. Submit the maximum sea lice load for the ABM to ASC as per Appendix VI at least once per year.	D. Confirm that client has submitted the ABM maximum lice load to ASC (Appendix VI).	1				Data submitted to ASC	
3.1.4	<p><b>Indicator:</b> Frequent [41] on-farm testing for sea lice, with test results made easily publicly available [42] within seven days of testing</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All except farms that release no water as noted in [38]</p>		a. Prepare an annual schedule for testing sea lice that identifies timeframes of routine testing frequency (at a minimum, monthly) and for high-frequency testing (weekly) due to sensitive periods for wild salmonids (e.g. during and immediately prior to outmigration of juveniles).	A. Review sea lice testing schedule to confirm that weekly testing coincides with known sensitive periods for wild salmon (e.g. during and immediately prior to outmigration of juveniles).	1				Doc. In F. Dir: "forskrift for metode lusetelling" and internally procedure for counting, registrations and reporting of sea lice	
			b. Maintain records of results of on-farm testing for sea lice. If farm deviates from schedule due to weather [41] maintain documentation of event and rationale.	B. Review records to confirm that testing follows the farm's annual schedule. Review the rationale for any deviations from the schedule.	1				Weekly counting	
			c. Document the methodology used for testing sea lice ('testing' includes both counting and identifying sea lice). The method must follow national or international norms, follows accepted minimum sample size, use random sampling, and record the species and life-stage of the sea lice. If farm uses a closed production system and would like to use an alternate method (i.e. video), farm shall provide the CAB with details on the method and efficacy of the method.	C. Review the farm's methodology for testing sea lice. If practicable, observe testing while on-site. If farm is a closed system using an alternate testing method, document the distinction and review evidence of efficacy of the method.	1					Method as described in the F.dir. Forskrift for lusetelling and internally procedures
			d. Make the testing results from 3.1.4b easily publicly available (e.g. posted to the company's website) within seven days of testing. If requested, provide stakeholders access to hardcopies of test results.	D. Test access from an offsite computer to confirm that results are easily publicly available. If applicable, confirm that the farm made hardcopies of test results easily available to stakeholders.	1					Doc. In Lusedata webside and LSG webside
			e. Keep records of when and where test results were made public.	E. Review records for the past year to confirm the farm posted test results within 7 days of each test. Cross-check against testing schedule (see 3.1.4a).	1					Documentation from each week verified.
			f. Submit test results to ASC (Appendix VI) at least once per year.	F. Confirm that client has submitted test results to ASC (Appendix VI).	1					Data submitted to ASC
Footnote	[41] Testing must be weekly during and immediately prior to sensitive periods for wild salmonids, such as outmigration of wild juvenile salmon. Testing must be at least monthly during the rest of the year, unless water temperature is so cold that it would jeopardize farmed fish health to test for lice (below 4 degree C). Within closed production systems, alternative methods for monitoring sea lice, such as video monitoring, may be used.									
Footnote	[42] Posting results on a public website is an example of "easily publicly available."									
3.1.5	<p><b>Indicator:</b> In areas with wild salmonids [43], evidence of data [44] and the farm's understanding of that data, around salmonid migration routes, migration timing and stock productivity in major waterways within 50 kilometers of the farm</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All farms operating in areas with wild salmonids except farms that release no water as noted in [38]</p>		<b>Instruction to Clients for Indicator 3.1.5 - Evidence for wild salmonid health and migration</b> In writing this indicator, the ASC Steering Committee concluded that relevant data sets on wild salmonid health and migration are publicly available in the vast majority of, if not all, aquaculture systems. Therefore, farms must demonstrate an understanding of this information at the general level for salmonid populations in their region, as such information is needed to make management decisions related to minimizing potential impact on those stocks.							
			a. Identify all salmonid species that naturally occur within 75 km of the farm through literature search or by consulting with a reputable authority. If the farm is not in an area with wild salmonids, then 3.1.5b and c do not apply.	A. Review salmonid species list for accuracy and cross-check source references. Confirm whether 3.1.5 b and c are applicable.	1				MAP of Nationale laksefjorder - Målselvassdraget & Reissavassdraget	
			b. For species listed in 3.1.5a, compile best available information on migration routes, migration timing (range of months for juvenile outmigration and returning salmon), life history timing for coastal resident salmonids, and stock productivity over time in major waterways within 50 km of the farm.	B. Review the accuracy of the farm's information on local salmonid migratory patterns and stock productivity. Cross-check source references as necessary.	1				Doc. Driftsplan for Reissaelva 2011-2015	
			c. From data in 3.1.5b, identify any sensitive periods for wild salmonids (e.g. periods of outmigration of juveniles) within 50 km of the farm.	C. Confirm accuracy of farm's understanding. Cross-check against 'sensitive periods' listed in the farm's annual schedule for testing for sea lice.	1				Doc above	
Footnote	[43] For purposes of these standards, "areas with wild salmonids" are defined as areas within 75 kilometers of a wild salmonid migration route or habitat. This definition is expected to encompass air, or nearby air, or salmon-growing areas in the northern hemisphere.									
Footnote	[44] Farms do not need to conduct research on migration routes, timing and the health of wild stocks under this standard if general information is already available. Farms must demonstrate an understanding of this information at the general level for salmonid populations in their region, as such information is needed to make management decisions related to minimizing potential impact on those stocks.									
3.1.6	<p><b>Indicator:</b> In areas of wild salmonids, monitoring of sea lice levels on wild out-migrating salmon juveniles or on coastal sea trout or Arctic char, with results made publicly available. See requirements in Appendix III-1.</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All farms operating in areas with wild salmonids except farms that release no water as noted in [38]</p>		a. Inform the CAB if the farm operates in an area of wild salmonids. If not, then Indicator 3.1.6 does not apply.	A. Confirm whether the farm operates in an area of wild salmonids based on results from 3.1.5a (above). If not, then Indicator 3.1.6 does not apply.	1					
			b. Keep records to show the farm participates in monitoring of sea lice on wild salmonids.	B. Review evidence to confirm farm's participation in monitoring.	1				It is not possible counting privately. Only monitoring by scientific work: Havforskningsinstituttet: Laksefisk langs norskekysten, Framdriftsrapport 2013	
			c. Provide the CAB access to documentation which is sufficient for the auditor to evaluate whether the methodology used for monitoring of sea lice on wild salmonids is in compliance with the requirements in Appendix III-1.	C. Evaluate documents to confirm methodology used for monitoring of sea lice on wild salmonids complies with requirements of Appendix III-1.	1					As doc. Above
			d. Make the results from 3.1.6b easily publicly available (e.g. posted to the company's website) within eight weeks of completion of monitoring.	D. Confirm that results are easily publicly available and that they were posted within the required timeframe.	1					All results are publicly available in acceptable timeframe
			e. Submit to ASC the results from monitoring of sea lice levels on wild salmonids as per Appendix VI.	E. Confirm that client has submitted monitoring results to ASC (Appendix VI).	1					Data submitted to ASC
3.1.7	<p><b>Indicator:</b> In areas of wild salmonids, maximum on-farm lice levels during sensitive periods for wild fish [45]. See detailed requirements in Appendix II, subsection 2.</p> <p><b>Requirement:</b> 0.1 mature female lice per farmed fish</p> <p><b>Applicability:</b> All farms operating in areas with wild salmonids except farms that release no water as noted in [38]</p>		a. Inform the CAB if the farm operates in an area of wild salmonids. If not, then Indicator 3.1.7 does not apply.	A. Confirm whether the farm operates in an area of wild salmonids based on results from 3.1.5a (above). If not, then Indicator 3.1.7 does not apply.	1				The company operates in an area of wild salmon	
			b. Establish the sensitive periods [45] of wild salmonids in the area where the farm operates. Sensitive periods for migrating salmonids is during juvenile outmigration and approximately one month before.	B. Review farm's designation of sensitive periods and cross-check against datasets presented in 3.1.4 and 3.1.5.	1					Sensitive periods in springtime, regarding to temperature,
			c. Maintain detailed records of monitoring on-farm lice levels (see 3.1.4) during sensitive periods as per Appendix II-2.	C. Review records from the farm's sea lice monitoring program to confirm that lice levels are in compliance with the requirement based on farm-wide average lice levels per farmed fish (not values from individual net-pens).	1					Records shows the levels on the farm is very low, No delicing in springtime. No treatments for sea lice the last 7 years
			d. Provide the CAB with evidence there is a 'feedback loop' between the targets for on-farm lice levels and the results of monitoring of lice levels on wild salmonids (Appendix II-2).	D. Confirm that monitoring data for lice levels are used in a feedback loop as required by Appendix II-2.				1		No monitoring performed by the farm on wild stocks
Footnote	[45] Sensitive periods for migrating salmonids is during juvenile outmigration and approximately one month before.									
<b>Criterion 3.2 Introduction of non-native species</b>										
<b>Compliance Criteria (Required Client Actions):</b>					<b>Auditor Evaluation (Required CAB Actions):</b>					
Note: For the purposes of indicator 3.2.1, "area" is defined as a contiguous body of water with the bio-chemical and temperature profile required to support the farmed species life and reproduction (e.g. the Northern Atlantic Coast of the U.S. and Canada). Appendix II.14 elaborates further on this definition: "The boundaries of an area should be defined, taking into										



3.2.1	<p><b>Indicator:</b> If a non-native species is being produced, demonstration that the species was widely commercially produced in the area by the date of publication of the SAD standard</p> <p><b>Requirement:</b> Yes [47]</p> <p><b>Applicability:</b> All farms except as noted in [47]</p>	a. Inform the CAB if the farm produces a non-native species. If not, then Indicator 3.2.1 does not apply.	A. Confirm the farm does not produce a non-native species by comparing local species (results from 3.1.5a) to the species produced. Cross-check against record from smolt suppliers (e.g. 3.3.1b). If the farm only produces a native species, then Indicator 3.2.1 does not apply.				1	No non-native species farmed	
		b. Provide documentary evidence that the non-native species was widely commercially produced in the area before publication of the SAD Standard (i.e. before June 13, 2012).	B. Review evidence to confirm when the non-native species was first brought into wide commercial production in the area of the farm.				1	No non-native species farmed	
		c. If the farm cannot provide evidence for 3.2.1b, provide documentary evidence that the farm uses only 100% sterile fish that includes details on accuracy of sterility effectiveness.	C. Review evidence to confirm that the farm uses only 100% sterile fish (N.B. at the time of this writing, the SAD Steering Committee was uncertain that any existing technology could reliably deliver 100% sterile fish). Cross-check against smolt purchase records (e.g. invoices).				1	No non-native species farmed	
		d. If the farm cannot provide evidence for 3.2.1b or 3.2.1c, provide documented evidence that the production system is closed to the natural environment and for each of the following: 1) non-native species are separated from wild fish by effective physical barriers that are in place and well maintained; 2) barriers ensure there are no escapes of reared fish specimens that might survive and subsequently reproduce [47]; and 3) barriers ensure there are no escapes of biological material [47] that might survive and subsequently reproduce (e.g. UV or other effective treatment of any effluent water exiting the system to the natural environment).	D. Review evidence that the farm complies with each point raised in 3.2.1d and confirm by inspection during on-site audit. Cross check against related farm records for escapes (3.4.1), unexplained loss (3.4.2), and escape prevention (3.4.4).				1	No non-native species farmed	
Footnote	[47] Exceptions shall be made for production systems that use 100% sterile fish or systems that demonstrate separation from the wild 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								
3.2.2	<p><b>Indicator:</b> If a non-native species is being produced, evidence of scientific research [48] completed within the past five years that investigates the risk of establishment of the species within the farm's jurisdiction and these results submitted to ASC for review [49]</p> <p><b>Requirement:</b> Yes, within five years of publication of the SAD standard [50,51]</p> <p><b>Applicability:</b> All</p>	<b>Instruction to Clients for Indicator 3.2.2 - Exceptions to Allow Production of Non-Native Species</b> Farms have five years to demonstrate compliance with this standard from the time of publication of the ASC Salmon Standard (i.e. full compliance by June 13, 2012).							
		a. Inform the ASC of the species in production (Appendix VI).	A. Confirm the farm has informed ASC which species is in production (Appendix VI).				1	No non-native species farmed	
		b. Inform the CAB if the farm produces a non-native species. If not, then Indicator 3.2.2 does not apply.	B. Confirm the farm does not produce a non-native species as for 3.2.1. If the farm only produces a native species, then Indicator 3.2.2 does not apply.				1	No non-native species farmed	
		c. If yes to 3.2.2b, provide evidence of scientific research completed within the past five years that investigates the risk of establishment of the species within the farm's jurisdiction. Alternatively, the farm may request an exemption to 3.2.2c (see below).	C. Confirm that the scientific research included: multi-year monitoring for non-native farmed species; used credible methodologies & analyses; and underwent peer review. If the farm requests an exemption then enter "NA" and proceed to 3.2.2d.				1	No non-native species farmed	
		d. If applicable, submit to the CAB a request for exemption that shows how the farm meets all three conditions specified in instruction box above.	D. As applicable, review the farm's request for exemption. Verify that the evidence shows how the farm meets all three conditions specified above.				1	No non-native species farmed	
Footnote	[48] The research must at a minimum include multi-year monitoring for non-native farmed species, use credible methodologies and analysis, and undergo peer review.								
Footnote	[49] If the review demonstrates there is increased risk, the ASC will consider promoting the termination of farming of non-native salmon in that jurisdiction under this standard. In the event that the risk tools demonstrate "high" risks, the SAD expects that the ASC will prohibit the certification of farming of non-native salmon in that jurisdiction.								
Footnote	[50] Farms have five years to demonstrate compliance with this standard from the time of publication of the final SAD standards and accompanying auditing guidelines.								
Footnote	[51] Farms are exempt from this standard if they are in a jurisdiction where the non-native species became established prior to farming activities in the area and the following three conditions are met: eradication would be impossible or have detrimental environmental effects; the introduction took place prior to 1992 (when the Convention on Biological Diversity (CBD) was ratified); the species is fully self-sustaining.								
3.2.3	<p><b>Indicator:</b> Use of non-native species for sea lice control for on-farm management purposes</p> <p><b>Requirement:</b> None</p> <p><b>Applicability:</b> All</p>	a. Inform the CAB if the farm uses fish (e.g. cleaner fish or wrasse) for the control of sea lice.	A. Confirm whether the farms uses fish for sea lice control. If no, auditor response to 3.2.3A-C is "not applicable" (NA).				1	No use of fish for sea lice control	
		b. Maintain records (e.g. invoices) to show the species name and origin of all fish used by the farm for purposes of sea lice control.	B. Review purchase records to confirm the origin and identity of all species that are used for sea lice control on farm.				1	No use of fish for sea lice control	
		c. Collect documentary evidence or first hand accounts as evidence that the species used is not non-native to the region.	C. Review evidence for compliance with the requirement. Acceptable documentary evidence: peer-reviewed literature, government documentation confirming species is not non-native to the region. Acceptable first hand accounts: community testimonials and direct evidence for historical presence of the species in the water body captured with cast nets, trapping devices, or fishing.				1	No use of fish for sea lice control	
<b>Criterion 3.3 Introduction of transgenic species</b>									
<b>Compliance Criteria (Required Client Actions):</b>					<b>Auditor Evaluation (Required CAB Actions):</b>				
3.3.1	<p><b>Indicator:</b> Use of transgenic [53] salmon by the farm</p> <p><b>Requirement:</b> None</p> <p><b>Applicability:</b> All</p>	a. Prepare a declaration stating that the farm does not use transgenic salmon.	A. Verify declaration of no use of transgenic salmon.				1	Statements: Stofnfiskur LTD, March 2012, Aqua gen, 20.10.2011, Salmobreed 01.12.2012	
		b. Maintain records for the origin of all cultured stocks including the supplier name, address and contact person(s) for stock purchases.	B. Review records to confirm compliance with the requirement.				1	Records form Aqua gen and Stofnfiskur and salmobreed	
		c. Ensure purchase documents confirm that the culture stock is not transgenic.	C. If the auditor suspects that transgenic fish are being cultured, test stock identity by collecting 3 fish and sending to an ISO 17025 certified laboratory for genetic analysis.				1	Not allowed in Norway	
Footnote	[53] Transgenic: Containing genes altered by insertion of DNA from an unrelated organism. Taking genes from one species and inserting them into another species to get that trait expressed in the offspring ( <a href="http://www.science.gov/oa/biotech/oa/biotechnology_res_glossary.html">http://www.science.gov/oa/biotech/oa/biotechnology_res_glossary.html</a> )								
<b>Criterion 3.4 Escapes [55]</b>									
<b>Compliance Criteria (Required Client Actions):</b>					<b>Auditor Evaluation (Required CAB Actions):</b>				
Footnote	[55] See Appendix VI for transparency requirements for 3.4.1, 3.4.2 and 3.4.3.								
3.4.1	<p><b>Indicator:</b> Maximum number of escapees [56] in the most recent production cycle</p>	a. Maintain monitoring records of all incidences of confirmed or suspected escapes, specifying date, cause, and estimated number of escapees.	A. Review client submission for completeness and accuracy of information. Cross-check with the estimate of unexplained loss, maintenance records for small tears in net, predator attacks, etc.				1	Records from FishTalk - production in the sea now,	
		b. Aggregate cumulative escapes in the most recent production cycle.	B. Review the calculation and confirm compliance with the requirement.				1	Doc in production reports from FishTalk	
		c. Maintain the monitoring records described in 3.4.1a for at least 10 years beginning with the production cycle for which farm is first applying for certification (necessary for farms to be eligible to apply for the exception noted in [57]).	C. Confirm that farm documents show continuous monitoring of escapes.				1	Doc. In production reports from FishTalk	

	<p><b>Requirement:</b> 300 [57]</p> <p><b>Applicability:</b> All farms except as noted in [57]</p>	<p>d. If an escape episode occurs (i.e. an incident where &gt; 300 fish escaped), the farm may request a rare exception to the Standard [57]. Requests must provide a full account of the episode and must document how the farm could not have predicted the events that caused the escape episode.</p>	<p>D. Review the farm's request for a rare exception to the Standard for an escape event. Confirm no prior exceptional events were documented during the previous 10 years, or since the date of the start of the production cycle during which the farm first applied for certification. An example of an exceptional event is vandalization of the farm. Events that are not considered exceptional include failures in moorings due to bad weather, boat traffic incidents due to poor marking of the farm, human error, and predation.</p>	1				Doc. 0 escapes from 2008
		<p>e. Submit escape monitoring dataset to ASC as per Appendix VI on an ongoing basis (i.e. at least once per year and for each production cycle).</p>	<p>E. Confirm that client has submitted escape monitoring data to ASC (Appendix VI).</p>	1				Data submitted to ASC
Footnote	[56] Farms shall report all escapes; the total aggregate number of escapees per production cycle must be less than 300 fish. Data on date of escape episode(s), number of fish escaped and cause of escape episode shall be reported as outlined in Appendix VI.							
Footnote	[57] A rare exception to this standard may be made for an escape event that is clearly documented as being outside the farm's control. Only one such exceptional episode is allowed in a 10-year period for the purposes of this standard. The 10-year period starts at the beginning of the production cycle for which the farm is applying for certification. The farmer must demonstrate that there was no reasonable way to predict the events that caused the episode. See auditing guidance for additional details.							
3.4.2	<p><b>Indicator:</b> Accuracy [58] of the counting technology or counting method used for calculating stocking and harvest numbers</p> <p><b>Requirement:</b> ≥ 98%</p> <p><b>Applicability:</b> All</p>	<p>a. Maintain records of accuracy of the counting technology used by the farm at times of stocking and harvest. Records include copies of spec sheets for counting machines and common estimates of error for hand-counts.</p>	<p>A. Confirm that the farm keeps records of counting accuracy for the counting technology or method used on site at stocking and harvest.</p>	1				Counters on well boat, Aqua Scan Registration Unit, on arrival as smolt and prior to slaughter
		<p>b. If counting takes place off site (e.g. pre-smolt vaccination count), obtain and maintain documents from the supplier showing the accuracy of the counting method used (as above).</p>	<p>B. Verify the client obtains information from smolt suppliers (if applicable).</p>	1				Reports doc. From smolt suppliers
		<p>c. During audits, arrange for the auditor to witness calibration of counting machines (if used by the farm).</p>	<p>C. Verify that the farm calibrates counting equipment as recommended by the manufacturer.</p>	1				Doc. Analysis reg. To counting from the well boats
		-	<p>D. Confirm the stated accuracy of the farm's counting technology or counting method is ≥ 98% at both stocking and harvest. Stated accuracy shall be determined by the spec sheet for counting machines and through common estimates of error for any hand-counts.</p>	1				Doc regarding to the method shows results 0,6% NC.
		<p>e. Submit counting technology accuracy to ASC as per Appendix VI on an ongoing basis (i.e. at least once per year and for each production cycle).</p>	<p>E. Confirm that client has submitted counting technology accuracy to ASC (Appendix VI).</p>	1				Data submitted to ASC
Footnote	[58] Accuracy shall be determined by the spec sheet for counting machines and through common estimates of error for any hand-counts.							
		<p><b>Instruction to Clients for Indicator 3.4.3 - Calculation of Estimated Unexplained Loss</b>                  The Estimated Unexplained Loss (EUL) of fish is calculated at the end of each production cycle as follows:</p>						
3.4.3	<p><b>Indicator:</b> Estimated unexplained loss [59] of farmed salmon is made publicly available</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	<p>a. Maintain detailed records for mortalities, stocking count, harvest count, and escapes (as per 3.4.1).</p>	<p>A. Review records for completeness.</p>	1				Doc. Records from FishTalk.
		<p>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.</p>	<p>B. Verify accuracy of farm calculations for estimated unexplained loss.</p>	1				Production report from Solheim verified.
		<p>c. Make the results from 3.4.3b available publicly. Keep records of when and where results were made public (e.g. date posted to a company website) for all production cycles.</p>	<p>C. Verify that the farm makes the information available to the public.</p>	1				No unexplained loss in the farm
		<p>d. Submit estimated unexplained loss to ASC as per Appendix VI for each production cycle.</p>	<p>D. Confirm that client has submitted estimated unexplained loss to ASC (Appendix VI).</p>	1				Data submitted to ASC
		-	<p>E. Compare EUL values (3.4.3a) and counting accuracy (3.4.2a) to recorded escapes to check whether farm reporting is plausible. If EUL is greater than the combined margin of error related to fish counts, investigate potential sources of error as it could indicate the farm under reported mortalities or escapes.</p>	1				Based on the individual smolt counting
Footnote	[59] Calculated at the end of the production cycle as: Unexplained loss = Stocking count – harvest count – mortalities – other known escapes. Where possible, use of the pre-smolt vaccination count as the stocking count is preferred.							
3.4.4	<p><b>Indicator:</b> Evidence of escape prevention planning and related employee training, including: net strength testing; appropriate net mesh size; net traceability; system robustness; predator management; record keeping and reporting of risk events (e.g., holes, infrastructure issues, handling errors, reporting and follow up of escape events); and worker training on escape prevention and counting technologies</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	<p>a. Prepare an Escape Prevention Plan and submit it to the CAB before the first audit. This plan may be part of a more comprehensive farm planning document as long as it addresses all required elements of Indicator 3.4.4.</p>	<p>A. Obtain and review the farm's escape prevention plan prior to scheduling the first audit.</p>	1				Doc in procedures regarding to eventually escapes. Doc. Tests system of the nets, procedures for the site equipment
		<p>b. If the farm operates an open (net pen) system, ensure the plan (3.4.4a) covers the following areas:                  - net strength testing;                  - appropriate net mesh size;                  - net traceability;                  - system robustness;                  - predator management;                  - record keeping;                  - reporting risk events (e.g. holes, infrastructure issues, handling errors);                  - planning of staff training to cover all of the above areas; and                  - planning of staff training on escape prevention and counting technologies.</p>	<p>B. Confirm the farm's Escape Prevention Plan contains all required elements for open (net pen) systems as applicable.</p>	1				Well documented Escape Prevention Plans for the site
		<p>c. If the farm operates a closed system, ensure the plan (3.4.4a) covers the following areas:                  - system robustness;                  - predator management;                  - record keeping;                  - reporting risk events (e.g. holes, infrastructure issues, handling errors);                  - planning of staff training to cover all of the above areas; and                  - planning of staff training on escape prevention and counting technologies.</p>	<p>C. Confirm the farm's Escape Prevention Plan contains all required elements for closed systems as applicable.</p>				1	This is an open system
		<p>d. Maintain records as specified in the plan.</p>	<p>D. Review documentary evidence showing implementation of the plan.</p>	1				Doc. Records of regularly testing and controls of the site and equipment
		<p>e. Train staff on escape prevention planning as per the farm's plan.</p>	<p>E. Review records (i.e. attendance records, meeting notes) to confirm that farm staff attend training on escape prevention planning.</p>	1				Doc. In training records for all employees
		-	<p>F. Interview farm workers to confirm that the plan is implemented.</p>	1				Interviews with the employees
<p><b>PRINCIPLE 4: USE RESOURCES IN AN ENVIRONMENTALLY EFFICIENT AND RESPONSIBLE MANNER</b>                  Criterion 4.1 Traceability of raw materials in feed</p>								



		Compliance Criteria (Required Client Actions):	Auditor Evaluation (Required CAB Actions):						
<b>Instruction to Clients for Indicators 4.1.1 through 4.4.2 - Sourcing of Responsible Produced Salmon Feeds</b>									
Farms must show that all feeds used by the farm are produced in compliance with the requirements of Indicators 4.1.1 through 4.1.4. To do so, farms must obtain documentary evidence that the feed producers (see note 1) are audited at regular intervals by an independent auditing firm.									
4.1.1	<p><b>Indicator:</b> Evidence of traceability, demonstrated by the feed producer, of feed ingredients that make up more than 1% of the feed [62].</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Maintain detailed records of all feed suppliers and purchases including contact information and purchase and delivery records.	A. Review feed records for completeness and confirm the number of feed suppliers to the client.	1				Main feed supplier is Ewos, from Skretting 2,5 % of total supply of feed. Feed records reviewed from 1.1.2013 - 7.10.2013 for Solheim farm	
		b. Inform each feed supplier in writing of ASC requirements pertaining to production of salmon feeds and send them a copy of the ASC Salmon Standard.	B. Review farm records to verify that the farm has informed all of its feed suppliers of relevant ASC requirements for feed production.	1				Information from Lerøy Aurora to Ewos and Skretting, 6.6.2013 regarding ASC requirements	
		c. For each feed producer used by the farm, confirm that an audit of the producer was recently done by an audit firm or CAB against an ASC-acknowledged certification scheme. Obtain a copy of the most recent audit report for each feed producer.	C. Verify that the farm obtains current audit reports from all relevant feed producers, that these audits were performed by an audit firm or CAB against an ASC-acknowledged certification scheme, and that audit results demonstrate compliance with requirements.				1		There has been audits of feed producer Ewos (ISO 22000, 9001, 14000/expire 29.5.2015, GlobalGAP/expire 24.6.2014, for Skretting Iso 22000/expire 28.7.2016. there is no audit results (rapports) at site
		d. For each feed producer, determine whether the farm will use method #1 or method #2 (see Instructions above) to show compliance of feed producers. Inform the CAB in writing.	D. Review which method the farm will use and confirm that independent audit results (4.1.1c) show compliance of feed producers.	1					The farm will use method #1
		e. Obtain declaration from feed supplier(s) stating that the company can assure traceability of all feed ingredients that make up more than 1% of the feed to a level of detail required by the ASC Salmon Standard [62].	E. Review declaration from each feed supplier to confirm the company assures traceability to the level of detail required by Standard.	1					Declaration from Ewos 10.7.2013, Skretting January 2013
		-	F. Cross-check the declarations against results from audits of feed suppliers (4.1.1c) to verify evidence of required levels of traceability.				1		There are no audit results (rapports) at site
Footnote	[62] Traceability shall be at a level of detail that permits the feed producer to demonstrate compliance with the standards 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 ingredients covered under this standard.								
<b>Criterion 4.2 Use of wild fish for feed [63]</b>									
Footnote		[63] See Appendix VI for transparency requirements for 4.2.1 and 4.2.2.							
<b>Instruction to Clients for Indicator 4.2.1 - Calculation of FFDRm</b>									
Farms must calculate the Fishmeal Forage Fish Dependency Ratio (FFDRm) according to formula presented in Appendix IV-1, using data from the most recent complete production cycle.									
4.2.1	<p><b>Indicator:</b> Fishmeal Forage Fish Dependency Ratio (FFDRm) for grow-out (calculated using formulas in Appendix IV-1)</p> <p><b>Requirement:</b> &lt; 1.35</p> <p><b>Applicability:</b> All</p>	a. Maintain a detailed inventory of the feed used including: - Quantities used of each formulation (kg); - Percentage of fishmeal in each formulation used; - Source (fishery) of fishmeal in each formulation used; - Percentage of fishmeal 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.	1				Declaration from Ewos 9.5.2013, amount, content and source of fishmeal	
		b. For FFDRm calculation, exclude fishmeal derived from rendering of seafood by-products (e.g. the "trimmings" from a human consumption fishery).	B. Verify that the client excludes from the FFDRm calculation any fishmeal rendered from seafood by-products.	1					FFDRm calculation, including seafood by-products and without seafood by-products
		c. Calculate eFCR using formula in Appendix IV-1 (use this calculation also in 4.2.2 option #1).	C. Verify that eFCR calculation was done correctly.	1					eFCR calculated according to Appendix IV-1
		d. Calculate FFDRm using formulas in Appendix IV-1.	D. Verify that FFDRm calculations were done correctly and confirm the value complies with the requirement.	1					FFDRm calculation including seafood by-products and without seafood by-products
		e. Submit FFDRm to ASC as per Appendix VI for each production cycle.	E. Confirm that client has submitted FFDRm to ASC (Appendix VI).	1					
		<i>Note: Under indicator 4.2.2, farms can choose to calculate FFDRo (Option #1) or EPA &amp; DHA (Option #2). Farms do not have to demonstrate that they meet both threshold values. Client shall inform the CAB which option they will use.</i>							
4.2.2	<p><b>Indicator:</b> Fish Oil Forage Fish Dependency Ratio (FFDRo) for grow-out (calculated using formulas in Appendix IV-1), OR Maximum amount of EPA and DHA from direct marine sources [64] (calculated according to Appendix IV-2)</p> <p><b>Requirement:</b> FFDRo &lt; 2.95 or (EPA + DHA) &lt; 30 g/kg feed</p> <p><b>Applicability:</b> All</p>	a. Maintain a detailed inventory of the feed used as specified in 4.2.1a.	A. Verify completeness of feed records as in 4.2.1a.	1				Feed records complete	
		b. For FFDRo and EPA+DHA calculations (either option #1 or option #2), exclude fish oil derived from rendering of seafood by-products (e.g. the "trimmings" from a human consumption fishery).	B. Verify client excludes fish oil rendered from byproducts from the FFDRo or (EPA + DHA) calculation.	1					No use of fish oil from byproducts
		c. Inform the CAB whether the farm chose option #1 or option #2 to demonstrate compliance with the requirements of the Standard.	C. Record which option the client chose.	1					Use of option #1
		d. For option #1, calculate FFDRo using formulas in Appendix IV-1 and using the eFCR calculated under 4.2.1c.	D. Verify that FFDRo calculations were done correctly and confirm the value complies with the standard.	1					FFDRo calculation result 2,448, calculation according to Appendix IV-1
		e. For option #2, calculate amount of EPA + DHA using formulas in Appendix IV-2.	E. Verify that (EPA+DHA) calculations were done correctly and confirm the value complies with the standard.	1					Verified, results regarding to ASC
		f. Submit FFDRo or EPA & DHA to ASC as per Appendix VI for each production cycle.	F. Confirm that client has submitted FFDRo or EPA & DHA to ASC (Appendix VI)	1					
Footnote	[64] Calculation excludes DHA and EPA derived from fisheries by-products and trimmings. Trimmings are defined as by-products when fish are processed for human consumption or if whole fish is rejected for use of human consumption because the quantity at the time of landing does not meet official regulations with regard to fish suitable for human consumption.								
<b>Criterion 4.3 Source of marine raw materials</b>									
		Compliance Criteria (Required Client Actions):	Auditor Evaluation (Required CAB Actions):						
<i>Note: Indicator 4.3.1 applies to fishmeal and oil from forage fisheries, pelagic fisheries, or fisheries where the catch is directly reduced (including kinn) and not to by-products or trimmings used in feed.</i>									
4.3.1	<p><b>Indicator:</b> Timeframe for all fishmeal and fish oil used in feed to come from fisheries [65] certified under a scheme that is an ISEAL member [66] and has guidelines that specifically promote responsible environmental management of small pelagic fisheries</p> <p><b>Requirement:</b> &lt; 5 years after the date of publication [67] of the SAD standards (i.e. full compliance by June 13, 2017)</p>	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.		1				There is a policy from client to support responsible feed sourcing	
		b. Prepare a letter stating the farm's intent to source feed containing fishmeal and fish oil originating from fisheries certified under the type of certification scheme noted in 4.3.1a	B. Obtain a copy of the client's letter of intent.	1					There is a letter of intent to source feed containing fishmeal and fish oil originating from fisheries certified under the type of certification scheme noted in 4.3.1a

	<b>Applicability:</b> All	c. Starting on or before June 13, 2017, use feed inventory and feed supplier declarations in 4.2.1a to develop a list of the origin of all fish products used as feed ingredients.	C. As of June 13, 2017, confirm that the farm has sufficient evidence for the origin of all fish products in feed to demonstrate compliance with indicator 4.3.1. Prior to June 13, 2017, 4.3.1c does not apply.					1		
		d. Starting on or before June 13, 2017, provide evidence that fishmeal and fish oil used in feed come from fisheries [65] certified under a scheme that is an ISEAL member [66] and has guidelines that specifically promote responsible environmental management of small pelagic fisheries.	D. As of June 13, 2017, review evidence and confirm compliance. Prior to June 13, 2017, 4.3.1d does not apply.					1		
Footnote	[65] This standard and standard 4.3.2 applies to fishmeal and oil from forage fisheries, pelagic fisheries, or fisheries where the catch is directly reduced (including krill) and not to by-products or trimmings used in feed.									
Footnote	[66] Meets ISEAL guidelines as demonstrated through full membership in the ISEAL Alliance, or equivalent as determined by the Technical Advisory Group of the ASC.									
Footnote	[67] Publication: Refers to the date when the final standards and accompanying guidelines are completed and made publicly available. This definition of publication applies throughout this document.									
		<b>Instruction to Clients for Indicator 4.3.2 - FishSource Score of Fish Used in Feed</b> To determine FishSource scores of the fish species used as feed ingredients, do the following:								
4.3.2	<b>Indicator:</b> Prior to achieving 4.3.1, the FishSource score [68] for the fishery(ies) from which all marine raw material in feed is derived <b>Requirement:</b> All individual scores ≥ 6, and biomass score ≥ 8 <b>Applicability:</b> All, until June 13, 2017	a. Record FishSource score for each species from which fishmeal or fish oil was derived and used as a feed ingredient (all species listed in 4.2.1a).	A. Cross-check against 4.2.1a to confirm that client recorded a score for each species used in feed.	1					Fish source score for deliveries to Gourtesjohka seafarm, is recorded for each species used in feed	
		b. Confirm that each individual score ≥ 6 and the biomass score is ≥ 8.	B. Cross-check a sample of the farm's scores against the FishSource website to verify that no individual score is < 6 and no biomass score is < 8.		1				Fish source score for deliveries to Solheim seafarm, is recorded, for Sandeel and Sprat one or more score <6, no recording of biomass score for pilchard, Mexico, Sandeel and Sprat	
		c. If the species is not on the website it means that a FishSource assessment is not available. Client can then take one or both of the following actions: 1. Contact FishSource via Sustainable Fisheries Partnerships to identify the species as a priority for assessment. 2. Contract a qualified independent third party to conduct the assessment using the FishSource methodology and provide the assessment and details on the third party qualifications to the CAB for review.	C. If the client provides an independent assessment, review the assessment and the qualifications of the independent third party to verify that the assessment was done in accordance with the FishSource methodology.					1		
		-	D. If the species does not have a FishSource score then the fish feed does not comply with the requirement.					1		
Footnote	[68] Or equivalent score using the same methodology. See Appendix IV-3 for explanation of FishSource scoring.									
		<b>Instruction to Clients for Indicator 4.3.3 - Third-Party Verification of Traceability</b> Indicator 4.3.3 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:								
4.3.3	<b>Indicator:</b> Prior to achieving 4.3.1, demonstration of third-party verified chain of custody and traceability for the batches of fishmeal and fish oil which are in compliance with 4.3.2. <b>Requirement:</b> Yes <b>Applicability:</b> All, until June 13, 2017	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.		1				There is not a rapport from third party traceability program to show compliance with 4.3.2	
		b. Ensure evidence covers all the species used (as consistent with 4.3.2a, 4.2.1a, and 4.2.2a).	B. Verify that demonstration of third-party verified chain-of-custody is in place for all species used.			1			There is a list of species used, but not a demonstration of third party chain-of-custody in place for the species used	
4.3.4	<b>Indicator:</b> Feed containing fishmeal and/or fish oil originating from by-products [69] or trimmings from IUU [70] catch or from fish species that are categorized as vulnerable, endangered or critically endangered, according to the IUCN Red List of Threatened Species [71] <b>Requirement:</b> None [72] <b>Applicability:</b> All except as noted in [72]	a. Compile and maintain, consistent with 4.2.1a and 4.2.2a, a list of the fishery of origin for all fishmeal and fish oil originating from by-products and trimmings.	A. Review list and confirm consistent with 4.2.1a, 4.2.2a, 4.3.3b.	1					There is a list of fishmeal from by-product used, with origin	
		b. Obtain a declaration from the feed supplier stating that no fishmeal or fish oil originating from IUU catch was used to produce the feed.	B. Verify that the farm obtains declarations from feed suppliers.		1				Statement from Ewos 17.6.2013 no use of fishmeal or fish oil originating from IUU catch was used to produce the feed.	
		c. Obtain from the feed supplier declaration that the meal or oil did not originate from a species categorized as vulnerable, endangered or critically endangered, according to the IUCN Red List of Threatened Species [71] and explaining how they are able to demonstrate this (i.e. through other certification scheme or through their independent audit).	C. Review declaration to confirm compliance. The International Fishmeal and Fish Oil Organization's Global Standard for Responsible Supply and the Marine Stewardship Council standards are two options for demonstrating compliance with Indicator 4.3.4c		1				No species from IUCN red list used for fishmeal or fish oil	
		d. If meal or oil originated from a species listed as "vulnerable" by IUCN, obtain documentary evidence to support the exception as outlined in [72].	D. Review evidence to support exception (if applicable).					1		
Footnote	[69] Trimmings are defined as by-products when fish are processed for human consumption or if whole fish is rejected for use of human consumption because the quality at the time of landing does not meet official regulations with regard to fish suitable for human consumption.									
Footnote	[70] IUU: Illegal, Unregulated and Unreported.									
Footnote	[71] The International Union for the Conservation of Nature reference can be found at <a href="http://www.iucnredlist.org/static/introduction">http://www.iucnredlist.org/static/introduction</a> .									
Footnote	[72] For species listed as "vulnerable" by IUCN, an exception is made if a regional population of the species has been assessed to be not vulnerable in a national red list process that is managed explicitly in the same science-based way as IUCN. In cases where a National Red List doesn't exist or isn't managed in accordance with IUCN guidelines, an exception is allowed when an assessment is conducted using IUCN's methodology and demonstrates that the population is not vulnerable.									
<b>Criterion 4.4 Source of non-marine raw materials in feed</b>										
		<b>Compliance Criteria (Required Client Actions):</b>			<b>Auditor Evaluation (Required CAB Actions):</b>					
4.4.1	<b>Indicator:</b> Presence and evidence of a responsible sourcing policy for the feed manufacturer for feed ingredients that comply with recognized crop moratoriums [75] and local laws [76] <b>Requirement:</b> Yes <b>Applicability:</b> All	a. Compile and maintain a list of all feed suppliers with contact information. (See also 4.1.1a)	A. Review feed supplier list and cross-check against feed purchases. (See also 4.1.1a)		1				Main feed supplier is Ewos, from Skretting 2,5 % of total supply of feed.	
		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.	B. Review policies from each feed supplier to confirm required sourcing policy is in place.		1				There is a sourcing policy in place from feed producer Ewos, 17.6.2013 and Skretting january 2013	
		c. Confirm that third party audits of feed suppliers (4.1.1c) 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.				1		Third-party audits from feed suppliers are not seen reviewed	
Footnote	[75] Moratorium: A period of time in which there is a suspension of a specific activity until future events warrant a removal or the suspension or issues regarding the activity have been resolved. In this context, moratoriums may refer to suspension of the									
Footnote	[76] Specifically, the policy shall include that vegetable ingredients, or products derived from vegetable ingredients, must not come from areas of the Amazon biome that were deforested after July 24, 2006, as geographically defined by the Brazilian Soy Moratorium. Should the Brazilian Soy Moratorium be lifted, this specific requirement shall be reconsidered.									



4.4.2	<p><b>Indicator:</b> Percentage of soya or soya-derived ingredients in the feed that are certified by the Roundtable for Responsible Soy (RTRS) or equivalent [77]</p> <p><b>Requirement:</b> 100%, within five years of the publication [78] of the SAD standards</p> <p><b>Applicability:</b> All, after June 13, 2017</p>	a. Prepare a policy stating the company's support of efforts to shift feed manufacturers' purchases of soya to soya certified under the Roundtable for Responsible Soy (RTRS) or equivalent.	A. Verify that the client's policy supports responsible sourcing of soya or soya-derived feed ingredients.	1			There is a policy from client to support responsible sourcing of soya
		b. Prepare a letter stating the farm's intent to source feed containing soya certified under the RTRS (or equivalent)	B. Obtain a copy of the client's letter of intent.	1			There is a letter of intent to source feed containing soya certified from ewos 16.10.2013, Skretting: 3.10.2010
		c. Notify feed suppliers of the farm's intent (4.4.2b).	C. Verify that farm notifies feed suppliers.	1			Notified 1.11.2013
		d. Obtain and maintain declaration from feed supplier(s) detailing the origin of soya in the feed.	D. Confirm that the farm has sufficient and supportive evidence for the origin of soya products in feed to demonstrate compliance with indicator 4.4.2	1			Origin of soya is declared
		e. Starting on or before June 13, 2017, provide evidence that soya used in feed is certified by the Roundtable for Responsible Soy (RTRS) or equivalent [77]	E. As of June 13, 2017, review evidence and confirm compliance. Prior to June 13, 2017, 4.4.2e does not apply.			1	
Footnote	[77] Any alternate certification scheme would have to be approved as equivalent by the Technical Advisory Group of the ASC.						
Footnote	[78] Publication: Refers to the date when the final standards and accompanying guidelines are completed and made publicly available. This definition of publication applies throughout this document.						
4.4.3	<p><b>Indicator:</b> Evidence of disclosure to the buyer [79] of the salmon of inclusion of transgenic [80] plant raw material, or raw materials derived from transgenic plants, in the feed</p> <p><b>Requirement:</b> Yes, for each individual raw material containing &gt; 1% transgenic content [81]</p> <p><b>Applicability:</b> All</p>	a. Obtain from feed supplier(s) a declaration detailing the content of soya and other plant raw materials in feed and whether it is transgenic.	A. Review feed supplier declaration and ensure declarations from all suppliers are present (see also 4.4.1A).	1			Declaration from feed suppliers, no use of vegetable GM
		b. Disclose to the buyer(s) a list of any transgenic plant raw material in the feed and maintain documentary evidence of this disclosure. For first audits, farm records of disclosures must cover > 6 months.	B. Verify evidence of disclosure to all buyers, cross-checking with plant material list (4.4.3a) to see that all transgenic plant ingredients were disclosed	1			No use of transgenic plant ingredients
		c. Inform ASC whether feed contains transgenic ingredients (yes or no) as per Appendix VI for each production cycle.	C. Confirm that the farm has informed ASC whether feeds containing transgenic ingredients are used on farm (Appendix VI).	1			
Footnote	[79] The company or entity to which the farm or the producing company is directly selling its product. This standard requires disclosure by the feed company to the farm and by the farm to the buyer of their salmon.						
Footnote	[80] Transgenic: Containing genes altered by insertion of DNA from an unrelated organism. Taking genes from one species and inserting them into another species to get that trait expressed in the offspring.						
Footnote	[81] See Appendix VI for transparency requirement for 4.4.3.						
<b>Criterion 4.5 Non-biological waste from production</b>							
		<b>Compliance Criteria (Required Client Actions):</b>		<b>Auditor Evaluation (Required CAB Actions):</b>			
4.5.1	<p><b>Indicator:</b> Presence and evidence of a functioning policy for proper and responsible [83] treatment of non-biological waste from production (e.g., disposal and recycling)</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Prepare a policy stating the farm's commitment to proper and responsible treatment of non-biological waste from production. It must explain how the farm's policy is consistent with best practice in the area of operation.	A. Review policy to verify the farm's commitment to proper and responsible treatment of non-biological waste from production in a manner consistent with best practice in the area.	1			Waste policy is described in doc. 11.1.3.12, and 1.1.04
		b. Prepare a declaration that the farm does not dump non-biological waste into the ocean.	B. Verify the client makes a declaration.	1			Waste policy include no dumps of waste to ocean
		c. Provide a description of the most common production waste materials and how the farm ensures these waste materials are properly disposed of.	C. During the on-site inspection look for evidence of proper waste disposal.	1			On-site inspection show proper waste disposal
		d. Provide a description of the types of waste materials that are recycled by the farm.	D. During the on-site inspection look for evidence of recycling of waste materials as described by client.	1			All types of waste material, as battery, oil, bags, steel, metal, empty painting boxes, nets, are described with action
Footnote	[83] Proper and responsible disposal will vary based on facilities available in the region and remoteness of farm sites. Disposal of non-biological waste shall be done in a manner consistent with best practice in the area. Dumping of non-biological waste into the ocean does not represent "proper and responsible" disposal.						
4.5.2	<p><b>Indicator:</b> Evidence that non-biological waste (including net pens) from grow-out site is either disposed of properly or recycled</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Provide a description of the most common production waste materials and how the farm ensures these waste materials are properly disposed of. (see also 4.5.1c)	A. During the on-site inspection look for evidence of proper waste disposal. (See also 4.5.1C)	1			Waste disposal as planned
		b. Provide a description of the types of waste materials that are recycled by the farm. (See also 4.5.1d)	B. During the on-site inspection look for evidence of recycling of waste materials as described by client. (See also 4.5.1D)	1			Nets are sent to NOFI for scrap
		c. Inform the CAB of any infractions or fines for improper waste disposal received during the previous 12 months and corrective actions taken..	C. Review infractions and corrective actions.	1			There are not reported improper waste disposal
		d. Maintain records of disposal of waste materials including old nets and cage equipment.	D. Review records to verify waste disposal and/or recycling is consistent with client description and policy.	1			Records (in Team) for disposal of nets and cage equipment (rings), for 25.9.2013 scrap of 16 net with ID, sent to NOFI
<b>Criterion 4.6 Energy consumption and greenhouse gas emissions on farms [84]</b>							
		<b>Compliance Criteria (Required Client Actions):</b>		<b>Auditor Evaluation (Required CAB Actions):</b>			
Footnote	[84] See Appendix VI for transparency requirements for 4.6.1, 4.6.2 and 4.6.3.						
<b>Instruction to Clients for Indicator 4.6.1 - Energy Use Assessment</b>							
<b>Indicator 4.6.1 requires that farms must have an assessment to verify energy consumption. The scope of this requirement is restricted to operational energy use for the farm site(s) that is</b>							
4.6.1	<p><b>Indicator:</b> Presence of an energy use assessment verifying the energy consumption on the farm and representing the whole life cycle at sea, as outlined in Appendix V- 1</p> <p><b>Requirement:</b> Yes, measured in kilojoule/mt fish/production cycle</p> <p><b>Applicability:</b> All</p>	a. Maintain records for energy consumption by source (fuel, electricity) on the farm throughout each production cycle.	A. Verify that the farm maintains records for energy consumption.	1			Registration of petrol, diesel and electricity in Team, for Lerøy Aurora 1.9.2012-1.10.2013, for Solheim Seafarm from 1.09.2012-1.10.2013
		b. Calculate the farm's total energy consumption in kilojoules (kj) during the last production cycle.	B. Review the farm's calculations for completeness and accuracy.	1			Total farm energy consumption Kj reported per month for Solheim
		c. Calculate the total weight of fish in metric tons (mt) produced during the last production cycle.	C. Confirm that the farm accurately reports total weight of fish harvested per production cycle. Cross-check against other farm datasets (e.g. harvest counts, escapes, and mortalities).	1			Total fish weight mt reported in detail
		d. Using results from 4.6.1b and 4.6.1c, calculate energy consumption on the farm as required, reported as kilojoule/mt fish/production cycle.	D. Review the farm's calculations for completeness and accuracy.	1			Calculation of kilojoule/mt fish/production cycle reviewed
		e. Submit results of energy use calculations (4.6.1d) to ASC as per Appendix VI for each production cycle.	E. Confirm that client has submitted energy use calculations to ASC (Appendix VI).	1			Calculation as described in Appendix V-1
		f. Ensure that the farm has undergone an energy use assessment that was done in compliance with requirements of Appendix V-1.	F. Confirm that the farm has undergone an energy use assessment verifying the farm's energy consumption.	1			Energy use assessment undergone
<b>Instruction to Clients for Indicator 4.6.2 - Annual GHG Assessment</b>							
<b>Indicator 4.6.2 requires that farms must have an annual Greenhouse Gas (GHG) assessment. Detailed instructions are presented in Appendix V-1 and reference therein. The scope of this</b>							
		a. Maintain records of greenhouse gas emissions on the farm.	A. Verify that the farm maintains records of GHG emissions.	1			Farm has maintained records for CO2 emission, based on use of diesel, oil and gas

4.6.2	<p><b>Indicator:</b> Records of greenhouse gas (GHG [85]) emissions [86] on farm and evidence of an annual GHG assessment, as outlined in Appendix V-1</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	b. At least annually, calculate all scope 1 and scope 2 GHG emissions in compliance with Appendix V-1.	B. Confirm that calculations are done annually and in compliance with Appendix V-1.	1			The calculation of CO2 have been done from 1.9. 2012 to date of audit
		c. For GHG calculations, select the emission factors which are best suited to the farm's operation. Document the source of those emissions factors.	C. Verify that the farm records all emissions factors used and their sources.	1			All sources have been recorded for CO2
		d. For GHG calculations involving conversion of non-CO <sub>2</sub> gases to CO <sub>2</sub> equivalents, specify the Global Warming Potential (GWP) used and its source.	D. Verify that the farm records all GWPs used and their sources.	1			There has been calculation of non-CO2 gasses
		e. Submit results of GHG calculations (4.6.2d) to ASC as per Appendix VI at least once per year.	E. Confirm that the farm has submitted GHG calculations to ASC (Appendix VI).	1			GHG calculation of CO2 emission has been submitted
		f. Ensure that the farm undergoes a GHG assessment as outlined in Appendix V-1 at least annually.	F. Confirm that the farm undergoes a GHG assessments annually and that the methods used comply with requirements of Appendix V-1.	1			GHG assessments has been shown for CO2 annually
Footnote	[85] For the purposes of this standard, GHGs are defined as the six gases listed in the Kyoto Protocol: carbon dioxide (CO <sub>2</sub> ); methane (CH <sub>4</sub> ); nitrous oxide (N <sub>2</sub> O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF <sub>6</sub> ).						
Footnote	[86] GHG emissions must be recorded using recognized methods, standards and records as outlined in Appendix V.						
4.6.3	<p><b>Indicator:</b> Documentation of GHG emissions of the feed [87] used during the previous production cycle, as outlined in Appendix V, subsection 2</p> <p><b>Requirement:</b> Yes, within three years of the publication [88] of the SAD standards (i.e. by June 13, 2015)</p> <p><b>Applicability:</b> All, after June 13, 2015</p>	<p><b>Instruction to Clients for Indicator 4.6.3 - GHG Emissions of Feed</b></p> <p>Indicator 4.6.3 requires that farms document the greenhouse gas emissions (GHG) associated with any feed used during salmon production. Farms will need to obtain this information from their feed supplier(s) a declaration detailing the GHG emissions of the feed (per kg feed).</p>		A. Verify declaration from feed supplier(s) and confirm client has declarations from all feed suppliers.	1		
		b. Multiply the GHG emissions per unit feed by the total amount of feed from each supplier used in the most recent completed production cycle.	B. Verify calculations cross-checking with feed purchase and use records.	1			
		c. If client has more than one feed supplier, calculate the total sum of emissions from feed by summing the GHG emissions of feed from each supplier.	C. Verify calculations.	1			
		d. Submit GHG emissions of feed to ASC as per Appendix VI for each production cycle.	D. Confirm that the farm has submitted GHG calculations for feed to ASC (Appendix VI).	1			
Footnote	[87] GHG emissions from feed can be given based on the average raw material composition used to produce the salmon (by weight) and not as documentation linked to each single product used during the production cycle. Feed manufacturer is responsible for calculation GHG emissions per unit feed. Farm can then calculate that information to calculate GHG emissions for the volume of feed they used in the prior production cycle.						
Footnote	[88] Publication: Refers to the date when the final standards and accompanying guidelines are completed and made publicly available. This definition of publication applies throughout this document.						
<b>Criterion 4.7 Non-therapeutic chemical inputs [89,90]</b>							
		<b>Compliance Criteria (Required Client Actions):</b>			<b>Auditor Evaluation (Required CAB Actions):</b>		
Footnote	[89] Closed production systems that do not use nets and do not use antifoulants shall be considered exempt from standards under Criterion 4.7.						
Footnote	[90] See Appendix VI for transparency requirements for 4.7.1, 4.7.3 and 4.7.4.						
4.7.1	<p><b>Indicator:</b> For farms that use copper-treated nets [91], evidence that nets are not cleaned [92] or treated in situ in the marine environment</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All farms except as noted in [89]</p>	a. Prepare a farm procedure for net cleaning and treatment that describes techniques, technologies, use of off-site facilities, and record keeping.	A. Review procedure for completeness.	1			There is a procedure 1.03.05 for cleaning of nets
		b. Maintain records of antifoulants and other chemical treatments used on nets.	B. Review documentary evidence and records for completeness, including traceability records of the nets where available.	1			Records of cleaning of nets as from procedure
		c. Declare to the CAB whether copper-based treatments are used on nets.	C. Verify whether copper-based treatments are used. If no, Indicator 4.7.1d does not apply to the client. If yes, proceed to 4.7.1D.	1			Nets treated with Netwax NI gold, cupperoxid 10-24 %, from registration
		d. If copper-based treatments are used, maintain documentary evidence (see 4.7.1b) that farm policy and practice does not allow for heavy cleaning of copper-treated nets in situ.	D. Review evidence and interview farm manager to confirm that farm does not do any heavy cleaning of copper-treated nets in situ.	1			Nets are not cleaned in situ, as verified from procedure and policy
		e. Inform ASC whether copper antifoulants are used on farm (yes or no) as per Appendix VI for each production cycle.	E. Confirm that the farm has informed ASC whether copper antifoulants are used on farm (Appendix VI).	1			
Footnote	[91] Under the SAD, "copper-treated net" is defined as a net that has been treated with any copper-containing substance (such as a copper-based antifoulant) during the previous 18 months, or has not undergone thorough cleaning at a land-based facility since the last treatment. Farms that use nets that have not been cleaned in situ in the marine environment shall be considered to use copper-treated nets on sufficient time and cleaning has been recorded in this definition. This will allow of heavy or more thorough cleaning.						
Footnote	[92] Light cleaning of nets is allowed. Intent of the standards is that, for example, the high pressure under water washers could not be used on copper-treated nets under this standard because of the risk of copper leaching off during this type of heavy or more thorough cleaning.						
4.7.2	<p><b>Indicator:</b> For any farm that cleans nets at on-land sites, evidence that net-cleaning sites have effluent treatment [93]</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All farms except as noted in [89]</p>	a. Declare to the CAB whether nets are cleaned on-land.	A. Review declaration and cross-check with records from 4.7.1b. If nets are not cleaned on land, Indicator 4.7.2 does not apply. If nets are cleaned on land, proceed to 4.7.2B.	1			Nets are cleaned on land, by supplier NOFI, description of procedure
		b. If nets are cleaned on-land, obtain documentary evidence from each net-cleaning facility that effluent treatment is in place.	B. Review documentary evidence to confirm that each net-cleaning facility has effluent treatment in place.	1			For every cleaning of net, a certificate is following
		c. If yes to 4.7.2b, obtain evidence that effluent treatment used at the cleaning site is an appropriate technology to capture of copper in effluents.	C. If applicable, review documentary evidence to confirm that land-based cleaning sites have appropriate technologies in place to capture copper in effluents and that they function as intended.	1			Documentary rapport from supplier NOFI, treatment of inlet and outlet water with analyze of copper, with analyze result
Footnote	[93] Treatment must have appropriate technologies in place to capture copper if the farm uses copper-treated nets.						
4.7.3	<p><b>Indicator:</b> For farms that use copper nets or copper-treated nets, evidence of testing for copper level in the sediment outside of the AZE, following methodology in Appendix I-1</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All farms except as noted in [89]</p>	<p>Note: If the benthos throughout and immediately outside the full AZE is hard bottom, provide evidence to the CAB and request an exemption from Indicator 4.7.3 (see 2.1.1c).</p>		A. Review declaration and cross-check against declaration from 4.7.1c. Record whether Indicator 4.7.3 is applicable to the client.	1		Farm use copper treated nets
		b. If "yes" in 4.7.3a, measure and record copper in sediment samples from the reference stations specified in 2.1.1d and 2.1.2c which lie outside the AZE.	B. As applicable, verify the farm tested sediment samples for copper from the reference stations specified in 2.1.1d and 2.1.2c which lie outside the AZE.	1			Sediment sampled as described, has been sent for analyze, results are not finished
		c. If "yes" in 4.7.3a, maintain records of testing methods, equipment, and laboratories used to test copper level in sediments from 4.7.3b.	C. Verify the measurements were taken using appropriate equipment and testing methods.	1			Sediment sampled as described, has been sent for analyze, results are not finished at audit
4.7.4	<p><b>Indicator:</b> Evidence that copper levels [94] are &lt; 34 mg Cu/kg dry sediment weight OR in instances where the Cu in the sediment exceeds 34 mg Cu/kg dry sediment weight, demonstration that the Cu concentration falls within the range of background concentrations as measured at three reference sites in the water body</p> <p><b>Requirement:</b> Yes</p>	a. Inform the CAB whether: <p>1) farm is exempt from Indicator 4.7.4 (as per 4.7.3a), or</p> <p>2) Farm has conducted testing of copper levels in sediment.</p>	A. Document and verify applicability of 4.7.4 to client (see also 4.7.3A)	1			Farm has conducted testing of copper from sediment
		b. Provide evidence from measurements taken in 4.7.3b that copper levels are < 34 mg Cu/kg dry sediment weight.	B. Verify that copper levels are < 34 mg Cu/kg sediment. If no, proceed to 4.7.4C.	1			Analyses are below the 34 mg/CU/kg
		c. If copper levels in 4.7.4b are ≥ 34 mg Cu/kg dry sediment weight, provide evidence the farm tested copper levels in sediments from reference sites as described in Appendix I-1 (also see Indicators 2.1.1 and 2.1.2).	C. If applicable, review evidence to confirm that farm followed Appendix I-1 for testing copper levels at reference sites.	1			Doc. Testing levels
		d. Analyze results from 4.7.4c to show the background copper concentrations as measured at three reference sites in the water body.	D. As applicable, review data to confirm that copper levels fall within the range of background concentrations as measured at reference sites.	1			Regarding to the background levels



	<b>Requirement:</b> All farms except as noted in [89] and excluding those farms shown to be exempt from Indicator 4.7.3	e. Submit data on copper levels in sediments to ASC as per Appendix VI for each production cycle.	E. Confirm that farm has submitted to ASC data on copper levels in sediment (Appendix VI).	1				Results sent to ASC
Footnote	[94] According to testing required under 4.7.3. The standards related to testing of copper are only applicable to farms that use copper-based nets or copper-treated nets.							
4.7.5	<b>Indicator:</b> Evidence that the type of biocides used in net antifouling are approved according to legislation in the European Union, or the United States, or Australia <b>Requirement:</b> Yes	a. Identify all biocides used by the farm in net antifouling. b. Compile documentary evidence to show that each chemical used in 4.7.5a is approved according to legislation in one or more of the following jurisdictions: the European Union, the United States, or Australia.	A. Review list of biocides and cross-check against treatment records (see 4.7.2b) and purchase records. B. Review documentary evidence to confirm compliance.	1 1				Nets treated with Netwax NI gold, cupperoxid 10-24 % Safety data sheet for product
<b>PRINCIPLE 5: MANAGE DISEASE AND PARASITES IN AN ENVIRONMENTALLY RESPONSIBLE MANNER</b>								
<i>Criterion 5.1 Survival and health of farmed fish [95]</i>								
		<b>Compliance Criteria (Required Client Actions):</b>			<b>Auditor Evaluation (Required CAB Actions):</b>			
Footnote	[95] See Appendix VI for transparency requirements for 5.1.4, 5.1.5 and 5.1.6.							
5.1.1	<b>Indicator:</b> Evidence of a fish health management plan for the identification and monitoring of fish diseases and parasites <b>Requirement:</b> Yes <b>Applicability:</b> All	a. Prepare a fish health management plan that incorporates components related to identification and monitoring of fish disease and parasites. This plan may be part of a more comprehensive farm planning document. b. Ensure that the farm's current fish health management plan was reviewed and approved by the farm's designated veterinarian [96].	A. Obtain and review the farm's fish health management plan. B. Verify there is evidence to show that the farm's designated veterinarian [96] reviewed and approved the current version of the plan.	1 1				Doc. VHP, , by Fish health resp. H. Hårstad Signed by fish health resp. H. Hårstad 23.09.2013
5.1.2	<b>Indicator:</b> Site visits by a designated veterinarian [96] at least four times a year, and by a fish health manager [97] at least once a month <b>Requirement:</b> Yes <b>Applicability:</b> All	a. Maintain records of visits by the designated veterinarian [96] and fish health managers [97]. If schedule cannot be met, a risk assessment must be provided. b. Maintain a current list of personnel who are employed as the farm's designated veterinarian(s) [96] and fish health manager(s) [97]. c. Maintain records of the qualifications of persons identified in 5.1.2b.	A. Review documentary evidence of site visits to confirm a minimum number of visits as outlined in 5.1.2. Or review risk assessment. B. Confirm visits in 5.1.2a were performed by the farm's designated health professionals. C. Review evidence for qualifications of the farm's health professionals.	1 1 1				Min. 12 visits each year by vet. H. Hårstad and E. Monsen Doc. Fish health journals from all the visits Doc. Certificates from H. Hårstad and E. Monsen
Footnote	[96] A designated veterinarian is the professional responsible for health management on the farm who has the legal authority to diagnose disease and prescribe medication. 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.							
Footnote	[97] A fish health manager is someone with professional expertise in managing fish health, who may work for a farming company or for a veterinarian, but who does not necessarily have the authority to prescribe medicine.							
5.1.3	<b>Indicator:</b> Percentage of dead fish removed and disposed of in a responsible manner <b>Requirement:</b> 100% [98] <b>Applicability:</b> All	a. Maintain records of mortality removals to show that dead fish are removed regularly and disposed of in a responsible manner. b. Collect documentation to show that disposal methods are in line with practices recommended by fish health managers and/or relevant legal authorities. c. For any exceptional mortality event where dead fish were not collected for post-mortem analysis, keep a written justification.	A. Review records of mortality removals to confirm completeness and accuracy. Cross-check against 5.1.4 and calculations of escapes and unexplained loss. B. Review client submission. Inspect the farm's system for mortality removals and disposals during the on site audit. C. Review the farm's justification for any exceptional mortality event where dead fish were not collected for post-mortem analysis (this situation should be a rare occurrence).	1 1			1	Removed on daily basis to the ensilage tank. Registered in the daily journals and in FishTalk. The ensilage is kept in tanks and removed by approved company Akvaren. There is also agreement if there will be a mass mortality No exceptional mortality in the farm
Footnote	[98] The SAD recognizes that not all mortality events will result in dead fish present for collection and removal. However, such situations are considered the exception rather than the norm.							
5.1.4	<b>Indicator:</b> Percentage of mortalities that are recorded, classified and receive a post-mortem analysis <b>Requirement:</b> 100% [99] <b>Applicability:</b> All	a. Maintain detailed records for all mortalities and post-mortem analyses including: - date of mortality and date of post-mortem analysis; - total number of mortalities and number receiving post-mortem analysis; - name of the person or lab conducting the post-mortem analyses; - qualifications of the individual (e.g. veterinarian [96], fish health manager [97]); - cause of mortality (specify disease or pathogen) where known; and - classification as 'unexplained' when cause of mortality is unknown (see 5.1.6). b. For each mortality event, ensure that post-mortem analyses are done on a statistically relevant number of fish and keep a record of the results. c. If on-site diagnosis is inconclusive and disease is suspected or results are inconclusive over a 1-2 week period, ensure that fish are sent to an off-site laboratory for diagnosis and keep a record of the results (5.1.4a). d. Using results from 5.1.3a-c, classify each mortality event and keep a record of those classifications. e. Provide additional evidence to show how farm records in 5.1.4a-d cover all mortalities from the current and previous two production cycles (as needed). f. Submit data on numbers and causes of mortalities to ASC as per Appendix VI on an ongoing basis (i.e. at least once per year and for each production cycle).	A. Review records of mortalities to verify completeness and to confirm that post-mortem analyses were done by qualified individuals or labs. B. Review records to confirm the farm had post-mortem analysis done for each mortality event and that a statistically relevant number of fish were analyzed from each mortality event. C. Review records to confirm that any inconclusive on-site diagnoses were sent to an off-site laboratory for further testing. D. Review mortality events to confirm the farm's classification was consistent with results from post-mortem analyses. Where cause was not determined verify that classification was plausible given available info. E. Review evidence to confirm compliance with requirements. F. Confirm that client has submitted data from post-mortem analyses and cause and number of mortalities to ASC (Appendix VI).	1 1 1 1 1 1				Doc. In FishTalk, vet.health reports and results of analysis made by Veterinærinstituttet Doc. In Vet. Journals and reports from Veterinærinstituttet Doc. Reports from Veterinærinstituttet verified All the mortality of the fish is reported in vet. Reports, FishTalk and daily journals Doc. In vet. Reports, last 24.09.2013 Data submitted to ASC
Footnote	[99] If on-site diagnosis is inconclusive, this standard requires on-site laboratory diagnosis. A qualified professional must conduct an diagnosis. One hundred percent of mortality events shall receive a post-mortem analysis, not necessarily every fish. A statistically relevant number of fish from the mortality event shall be analyzed.							
		a. Calculate the total number of mortalities that were diagnosed (see 5.1.4) as being related to viral disease.	A. Review and confirm the calculated number of viral disease-related mortalities.	1				No viral disease in the farm. Doc. From vet. Rapports

5.1.5	<p><b>Indicator:</b> Maximum viral disease-related mortality [100] on farm during the most recent production cycle</p> <p><b>Requirement:</b> ≤ 10%</p> <p><b>Applicability:</b> All</p>	<p>b. Combine the results from 5.1.5a with the total number of unspecified and unexplained mortalities from the most recent complete production cycle. Divide this by the total number of fish produced in the production cycle (x100) to calculate percent maximum viral disease-related mortality.</p>	<p>B. Verify that the sum of confirmed viral disease-related mortalities plus unspecified &amp; unexplained mortalities is ≤ 10% of the total number of fish produced during the most recent production cycle.</p>	1				Calculated mortality in the farm is: 8,13%
		<p>c. Submit data on total mortality and viral disease-related mortality to ASC as per Appendix VI on an ongoing basis (i.e. at least once per year and for each production cycle).</p>	<p>C. Confirm that client has submitted data on mortality to ASC (Appendix VI).</p>	1				Data submitted to ASC
Footnote	[100] Viral disease-related mortality count shall include unspecified and unexplained mortality as it could be related to viral disease.							
5.1.6	<p><b>Indicator:</b> Maximum unexplained mortality rate from each of the previous two production cycles, for farms with total mortality &gt; 6%</p> <p><b>Requirement:</b> ≤ 40% of total mortalities</p> <p><b>Applicability:</b> All farms with &gt; 6% total mortality in the most recent complete production cycle.</p>	<p>a. Use records in 5.1.4a to calculate the unexplained mortality rate (%) for the most recent full production cycle. If rate was ≤ 6%, then the requirement of 5.1.6 does not apply. If total mortality rate was &gt; 6%, proceed to 5.1.6b.</p>	<p>A. Review, confirm, and document whether 5.1.6 is applicable to the client. If applicable, proceed to 5.1.6B.</p>	1				Calculated Mortality is 5,97%
		<p>b. Calculate the unexplained mortality rate (%) for each of the two production cycles immediately prior to the current cycle. For first audit, calculation must cover one full production cycle immediately prior to the current cycle.</p>	<p>B. Review and confirm that ≤ 40% of total mortalities were from unexplained causes for each of the two previous production cycles</p>				1	Below 6%
		<p>c. Submit data on maximum unexplained mortality to ASC as per Appendix VI for each production cycle.</p>	<p>C. Confirm that client has submitted data on unexplained mortality to ASC (Appendix VI).</p>				1	Below 6 %
5.1.7	<p><b>Indicator:</b> A farm-specific mortalities reduction program that includes defined annual targets for reductions in mortalities and reductions in unexplained mortalities</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	<p><b>Note:</b> Farms have the option to integrate their farm-specific mortality reduction program into the farm's fish health management plan (5.1.1).</p>						
		<p>a. Use records in 5.1.4a to assemble a time-series dataset on farm-specific mortalities rates and unexplained mortality rates.</p>	<p>A. Confirm that the farm used mortalities records to assemble a detailed dataset on mortality rates which covers the required timeframe (see 5.1.4).</p>	1				Doc. In VHP mortality rates and in Fishtalk
		<p>b. Use the data in 5.1.7a and advice from the veterinarian and/or fish health manager to develop a mortalities-reduction program that defines annual targets for reductions in total mortality and unexplained mortality.</p>	<p>B. Review program to confirm that targets for mortality reduction are reasonable and based on historical data.</p>	1				Doc. In VHP: targets for mortality, based on historical data
		<p>c. Ensure that farm management communicates with the veterinarian, fish health manager, and staff about annual targets and planned actions to meet targets.</p>	<p>C. Interview workers to confirm their understanding of mortalities recording, classification, and annual targets for reduction (see also 5.1.1, 5.1.3).</p>	1				Well understanding demonstrated
<p><b>Criterion 5.2 Therapeutic treatments [101]</b></p>								
		<p><b>Compliance Criteria (Required Client Actions):</b></p>			<p><b>Auditor Evaluation (Required CAB Actions):</b></p>			
Footnote	[101] See Appendix VI for transparency requirements for 5.2.1, 5.2.5, 5.2.6 and 5.2.10.							
<p><b>Instruction to Clients and CABs for Criterion 5.2 - Records Related to Therapeutic Treatments</b></p>								
5.2.1	<p><b>Indicator:</b> On-farm documentation that includes, at a minimum, detailed information on all chemicals [102] and therapeutants used during the most recent production cycle, the amounts used (including grams per ton of fish produced), the dates used, which group of fish were treated and against which diseases, proof of proper dosing, and all disease and pathogens detected on the site</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	<p>a. Maintain a detailed record of all chemical and therapeutant use that includes:                      - name of the veterinarian prescribing treatment;                      - product name and chemical name;                      - reason for use (specific disease)                      - date(s) of treatment;                      - amount (g) of product used;                      - dosage;                      - mt of fish treated;                      - the WHO classification of antibiotics (also see note under 5.2.8); and                      - the supplier of the chemical or therapeutant.</p>	<p>A. Review records of chemical and therapeutant use. Verify accuracy through cross-check with purchase orders and sales records, inventories, documentation from feed manufacturer for any in-feed treatment, and veterinary records.</p>	1				No therapeutic have been used in Gourtesjohka. Only Benzoak for sedating the fish when counting sea lice. Doc. In vet. Rapports and Fishtalk
		<p>b. If not already available, assemble records of chemical and therapeutant use to address all points in 5.2.1a for the previous two production cycles. For first audits, available records must cover one full production cycle immediately prior to the current cycle.</p>	<p>B. Confirm that farm has detailed records for chemical and therapeutant use that covers the previous two production cycles.</p>	1				Detailed records in FishTalk and in vet. Journals
		<p>c. Submit information on therapeutant use (data from 5.2.1a) to ASC as per Appendix VI on an ongoing basis (i.e. at least once per year and for each production cycle).</p>	<p>C. Confirm that client has submitted therapeutant information to ASC (Appendix VI).</p>	1				Data submitted to ASC
Footnote	[102] Chemicals used for the treatment of fish.							
5.2.2	<p><b>Indicator:</b> Allowance for use of therapeutic treatments that include antibiotics or chemicals that are banned [103] in any of the primary salmon producing or importing countries [104]</p> <p><b>Requirement:</b> None</p> <p><b>Applicability:</b> All</p>	<p>a. Prepare a list of therapeutants, including antibiotics and chemicals, that are proactively banned for use in food fish for the primary salmon producing and importing countries listed in [104].</p>	<p>A. Review list and supporting evidence. If ASC has agreed to maintain a list of relevant therapeutants, farm can demonstrate that they have this list.</p>	1				Doc. In the official list " Grenseverdier for legemidler i næringsmidler for dyr 30.5.2012"
		<p>b. Maintain records of voluntary and/or mandatory chemical residue testing conducted or commissioned by the farm from the prior and current production cycles.</p>	<p>B. Verify records.</p>	1				No treatment used of that type of treatments. Doc. in Vet. reports
		<p>-</p>	<p>C. Cross-check records of therapeutant use (5.2.1a) against the list of banned therapeutants to verify compliance with requirements.</p>	1				Verified " List of EU and US banned substances
Footnote	[103] Banned means proactively prohibited by a government entity because of concerns around the substance. A substance banned in any of the primary salmon producing or importing countries, as defined here, cannot be used in any salmon farm certified under the ASC, regardless of country of production or destination of the product. The ASC recommends that ASC maintain a list of banned therapeutants.							
Footnote	[104] For purposes of this standard, those countries are Norway, the UK, Canada, Chile, the United States, Japan and France.							
5.2.3	<p><b>Indicator:</b> Percentage of medication events that are prescribed by a veterinarian</p> <p><b>Requirement:</b> 100%</p> <p><b>Applicability:</b> All</p>	<p>a. Obtain prescription for all therapeutant use in advance of application from the farm veterinarian (or equivalent, see [96] for definition of veterinarian).</p>	<p>A. Review documentary evidence (on-farm records, veterinary records, and prescriptions) to confirm all therapeutants were prescribed by a qualified individual. See [96] for definition of veterinarian.</p>	1				Doc. Certificates for the veterinarian and journals from the visits and in Fishtalk.
		<p>b. Maintain copies of all prescriptions and records of veterinarian responsible for all medication events. Records can be kept in conjunction with those for 5.2.1 and should be kept for the current and two prior production cycles.</p>	<p>B. Cross-check with results from chemical residue testing provided under 5.2.2b.</p>	1				Reviewed doc. From veterinarian and results of analysis.
5.2.4	<p><b>Indicator:</b> Compliance with all withholding periods after treatments</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	<p>a. Incorporate withholding periods into the farm's fish health management plan (see 5.1.1a).</p>	<p>A. Review the farm's fish health management plan to confirm inclusion of withholding periods and interview farm staff to verify implementation.</p>	1				Doc. In the VHP. No treatments in Gourtesjohka so far
		<p>b. Compile and maintain documentation on legally-required withholding periods for all treatments used on-farm. Withholding period is the time interval after the withdrawal of a drug from the treatment of the salmon before the salmon can be harvested for use as food.</p>	<p>B. Review documentation for completeness and accuracy. Compare to records of therapeutant use (5.2.1a).</p>	1				Doc. From VHP and FishTalk
		<p>c. Show compliance with all withholding periods by providing treatment records (see 5.2.1a) and harvest dates for the most recent production cycle.</p>	<p>C. Review documentary evidence and, if applicable, results from chemical residue testing (5.2.2b), to confirm legal withholding periods were met for the most recent production cycle and harvest.</p>	1				Doc. From FishTalk and vet. Journals. No use of treatments in the farm



5.2.5	<p><b>Indicator:</b> Maximum farm level cumulative parasiticide treatment index (PTI) score as calculated according to the formula in Appendix VII</p> <p><b>Requirement:</b> PTI score ≤ 13</p> <p><b>Applicability:</b> All</p>	a. Using farm data for therapeutants usage (5.2.1a) and the formula presented in Appendix VII, calculate the cumulative parasiticide treatment index (PTI) score for the most recent production cycle. Calculation should be made and updated on an ongoing basis throughout the cycle by farm manager, fish health manager, and/or veterinarian.	A. Review the farm's calculations to verify that the PTI score was calculated correctly and that the scores are accurate. Cross-check with records of parasiticide use.	1			No treatments in the farm, only Benzoak for counting sea lice
		b. Provide the auditor with access to records showing how the farm calculated the PTI score.	B. Verify that the farm level cumulative PTI score ≤ 13.	1			No treatments in the farm
		c. Submit data on farm level cumulative PTI score to ASC as per Appendix VI for each production cycle.	C. Confirm that client has submitted data on cumulative PTI score to ASC (Appendix VI).	1			Data submitted to ASC
<p><i>Note: Indicator 5.2.6 does not take effect until June 13, 2017. Nonetheless farms should start collecting data on parasiticide load beforehand in case farms have to demonstrate compliance with Indicator 5.2.6 at some point in the future using data from the two previous production cycles.</i></p>							
5.2.6	<p><b>Indicator:</b> For farms with a cumulative PTI ≥ 6 in the most recent production cycle, demonstration that parasiticide load [105] is at least 15% less that of the average of the two previous production cycles</p> <p><b>Requirement:</b> Yes, within five years of the publication of the SAD standard (i.e. by June 13, 2017)</p> <p><b>Applicability:</b> All farms with a cumulative PTI ≥ 6 in the most recent production cycle</p>	a. Review PTI scores from 5.2.5a to determine if cumulative PTI ≥ 6 in the most recent production cycle. If yes, proceed to 5.2.6b; if no, Indicator 5.2.6 does not apply.	A. Review farm's cumulative PTI score to determine if Indicator 5.2.6 is applicable.			1	No treatments
		b. Using results from 5.2.5 and the weight of fish treated (kg), calculate parasiticide load in the most recent production cycle [105].	B. Review the farm's calculation of parasiticide load to verify accuracy.			1	No treatments
		c. Calculate parasiticide load in the two previous production cycles as above (5.2.6b) and compute the average. Calculate the percent difference in parasiticide load between current cycle and average of two previous cycles. For first audit, calculation must cover one full production cycle immediately prior to the current cycle.	C. Review farm's calculations to verify that parasiticide load for the most recent production cycle is at least 15% less than that of the two previous cycles.			1	No treatments
		d. As applicable, submit data to ASC on parasiticide load for the most recent production cycle and the two previous production cycles (Appendix VI).	D. Confirm that client has submitted data on parasiticide load to ASC (Appendix VI) as applicable.			1	Not started yet
Footnote	<p>[105] Parasiticide load = <math>\sum (\text{kg of fish treated} \times \text{PTI})</math>. Reduction in load required regardless of whether production increases on the site. Farms that consolidate production across multiple sites within an ABM can calculate reduction based on the combined parasiticide load of the consolidated sites.</p>						
5.2.7	<p><b>Indicator:</b> Allowance for prophylactic use of antimicrobial treatments [106]</p> <p><b>Requirement:</b> None</p> <p><b>Applicability:</b> All</p>	a. Maintain records for all purchases of antibiotics (invoices, prescriptions) for the current and prior production cycles.	A. Review purchase records and calculate total amount procured by client. Inspect storage areas to verify quantities on-site.			1	No treatments in the farm
		b. Maintain a detailed log of all medication-related events (see also 5.2.1a and 5.2.3)	B. Review log of medication events to verify that the quantity of antibiotic applied by the client does not suggest prophylactic use.			1	No treatments in the farm
		c. Calculate the total amount (g) and treatments (#) of antibiotics used during the current and prior production cycles (see also 5.2.9).	C. Verify that the total amount of antibiotics used in the current production cycle is equal to the total amount prescribed.			1	No treatments in the farm
Footnote	<p>[106] The designated veterinarian must certify that a pathogen or disease is present before prescribing medication.</p>						
5.2.8	<p><b>Indicator:</b> Allowance for use of antibiotics listed as critically important for human medicine by the World Health Organization (WHO) [107]</p> <p><b>Requirement:</b> None [108]</p> <p><b>Applicability:</b> All</p>	a. Maintain a current version of the WHO list of antimicrobials critically and highly important for human health [107].	A. Confirm that the farm has the current copy of the WHO list of antibiotics.			1	No treatments in the farm
		b. If the farm has <u>not</u> used any antibiotics listed as critically important (5.2.8a) in the current production cycle, inform the CAB and proceed to schedule the audit.	B. During the on-site audit, verify that no antibiotics listed as "critically important" have been used on the farm through cross-check of records for 5.2.1 and 5.2.7.			1	No treatments in the farm
		c. If the farm <u>has</u> used antibiotics listed as critically important (5.2.8a) to treat any fish during the current production cycle, inform the CAB prior to scheduling audit.	C. Make note of the farm's antibiotic usage and do not schedule an on-site audit until the client provides additional information as specified in 5.2.8d.			1	No treatments in the farm
		d. If yes to 5.2.8c, request an exemption from the CAB to certify only a portion of the farm. Prior to the audit, provide the CAB with records sufficient to establish details of treatment, which pens were treated, and how the farm will ensure full traceability and separation of treated fish through and post-harvest.	D. Review the farm's exemption request and supporting documents to verify that the farm can satisfactorily demonstrate traceability [108] to merit an exemption.			1	No treatments in the farm
Footnote	<p>[107] The third edition of the WHO list of critically and highly important antimicrobials was released in 2009 and is available at: <a href="http://www.who.int/foodborne_disease/resistance/CIA_3.pdf">http://www.who.int/foodborne_disease/resistance/CIA_3.pdf</a>.</p>						
Footnote	<p>[108] If the antibiotic treatment is applied to only a portion of the pens on a farm site, fish from pens that did not receive treatment are still eligible for certification.</p>						
5.2.9	<p><b>Indicator:</b> Number of treatments [109] of antibiotics over the most recent production cycle</p> <p><b>Requirement:</b> ≤ 3</p> <p><b>Applicability:</b> All</p>	a. Maintain records of all treatments of antibiotics (see 5.2.1a). For first audits, farm records must cover the current and immediately prior production cycles in a verifiable statement.	A. Review documents to confirm that the client maintains a record of all treatments of antibiotics. Cross-check against records of on-farm chemical & therapeutant use (5.2.1a), medication events (5.2.3a), and prescription records (5.2.3b).			1	No treatments in the farm
		b. Calculate the total number of treatments of antibiotics over the most recent production cycle and supply a verifiable statement of this calculation.	B. Confirm that the client used ≤ 3 treatments of antibiotics over the most recent production cycle.			1	No treatments in the farm
Footnote	<p>[109] A treatment is a single course medication given to address a specific disease issue and that may last a number of days.</p>						
5.2.10	<p><b>Indicator:</b> If more than one antibiotic treatment is used in the most recent production cycle, demonstration that the antibiotic load [110] is at least 15% less that of the average of the two previous production cycles</p> <p><b>Requirement:</b> Yes [111], within five years of the publication of the SAD standard (i.e. full compliance by June 13, 2017)</p> <p><b>Applicability:</b> All</p>	a. Use results from 5.2.9b to show whether more than one antibiotic treatment was used in the most recent production cycle. If not, then the requirement of 5.2.10 does not apply. If yes, then proceed to 5.2.10b.	A. Review results to confirm whether 5.2.10 is applicable to the client. Record the results and, if applicable, proceed to 5.2.10b.			1	No treatments in the farm
		b. Calculate antibiotic load (antibiotic load = the sum of the total amount of active ingredient of antibiotic used in kg) for most recent production cycle and for the two previous production cycles. For first audit, calculation must cover one full production cycle immediately prior to the current cycle.	B. Review farm's calculations for accuracy and completeness of coverage. Cross-check against treatment records (5.2.1a).			1	No treatments in the farm
		c. Provide the auditor with calculations showing that the antibiotic load of the most recent production cycle is at least 15% less than that of the average of the two previous production cycles.	C. Review evidence to verify that farm complies with requirement.			1	No treatments in the farm
		d. Submit data on antibiotic load to ASC as per Appendix VI (if applicable) for each production cycle.	D. Confirm that client has submitted data on antibiotic load to ASC (Appendix VI) as applicable.			1	No use of antibiotics
Footnote	<p>[110] Antibiotic load = the sum of the total amount of active ingredient of antibiotics used (kg).</p>						
Footnote	<p>[111] Reduction in load required, regardless of whether production increases on the site. Farms that consolidate production across multiple sites within an ABM can calculate reduction based on the combined antibiotic load of the consolidated sites.</p>						
5.2.11	<p><b>Indicator:</b> Presence of documents demonstrating that the farm has provided buyers [112] of its salmon a list of all therapeutants used in production</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Prepare a procedure which outlines how the farm provides buyers [112] of its salmon with a list of all therapeutants used in production (see 4.4.3b).	A. Review the farm's procedure and confirm implementation based on relevant documentary evidence (e.g. sales records, invoices).	1			Doc. Verified used if necessary. Using results doc. In vet. Reports and FishTalk
		b. Maintain records showing the farm has informed all buyers of its salmon about all therapeutants used in production.	B. Review sales records for completeness and cross-check against treatment records (5.2.1a) to verify that buyers were adequately informed about therapeutants used in production.	1			Doc. Example of type of records by sales to H. Lerøy 2.4.2013
Footnote	<p>[112] Buyer: The company or entity to which the farm or the producing company is directly selling its product.</p>						

Criterion 5.3 Resistance of parasites, viruses and bacteria to medicinal treatments		Compliance Criteria (Required Client Actions):	Auditor Evaluation (Required CAB Actions):										
5.3.1	<b>Indicator:</b> Bio-assay analysis to determine resistance when two applications of a treatment have not produced the expected effect <b>Requirement:</b> Yes <b>Applicability:</b> All	<b>Instruction to Clients for Indicator 5.3.1 - Identifying the expected effect of medicinal treatment</b> Indicator 5.2.1 requires that farms identify treatments that have not produced the expected effect. The ASC Steering Committee recognizes that the "expected effect" will vary with health.					1	No treatments in the farm					
		a. In addition to recording all therapeutic treatments (5.2.1a), keep a record of all cases where the farm uses two successive medicinal treatments.	A. Review farm records to confirm recording of all successive medicinal treatments.					1	No treatments in the farm				
		b. Whenever the farm uses two successive treatments, keep records showing how the farm evaluates the observed effect of treatment against the expected effect of treatment.	B. If applicable, review how the farm evaluates the observed effect of treatment against the expected effect of treatment.					1	No treatments in the farm				
		c. For any result of 5.3.1b that did not produce the expected effect, ensure that a bio-assay analysis of resistance is conducted.	C. Review farm records to confirm that bio-assays were done in every case where successive treatments did not produce the expected effect. Confirm that bio-assays were performed by a qualified independent laboratory.					1	No treatments in the farm				
		d. Keep a record of all results arising from 5.3.1c.	D. Verify that farm maintains records from bio-assays (as applicable).					1	No treatments in the farm				
5.3.2	<b>Indicator:</b> When bio-assay tests determine resistance is forming, use of an alternative, permitted treatment, or an immediate harvest of all fish on the site <b>Requirement:</b> Yes <b>Applicability:</b> All	a. Review results of bio-assay tests (5.3.1d) for evidence that resistance has formed. If yes, proceed to 5.3.2b. If no, then Indicator 5.3.2 is not applicable.	A. Review evidence from bio-assay tests to determine whether Indicator 5.3.2 is applicable.	1				If needed the decision is reg. To ABM for the area to use Betamax					
		b. When bio-assay tests show evidence that resistance has formed, keep records showing that the farm took one of two actions: - used an alternative treatment (if permitted in the area of operation); or - immediately harvested all fish on site.	B. If applicable, review records to verify that the farm either used an alternative treatment that is permitted in the area of operation or else harvested all fish on site.	1				Records from vet. Journals and the ABM for the area					
Criterion 5.4 Biosecurity management [113]		Compliance Criteria (Required Client Actions):	Auditor Evaluation (Required CAB Actions):										
Footnote	[113] See Appendix VI for transparency requirements for 5.4.2 and 5.4.4.												
5.4.1	<b>Indicator:</b> Evidence that all salmon on the site are a single-year class [114] <b>Requirement:</b> 100% [115] <b>Applicability:</b> All farms except as noted in [115]	a. Keep records of the start and end dates of periods when the site is fully fallow after harvest.	A. Review records and verify fallow periods by cross-checking during interviews with farm staff and community representatives.	1				Doc. In Fish health report frm 22.07.2012, Doc. Single years class, Last slaughterdate25.4.2012					
		b. Provide evidence of stocking dates (purchase receipts, delivery records) to show that there were no gaps > 6 months for smolt inputs for the current production cycle.	B. Review evidence to confirm there were no gaps in smolt inputs > 6 months. Inspect pens during the on-site audit to see if fish size (which may be variable) is consistent with the production of a single-year class.	1				Doc. In fishtalk: From 22.4.2012 until 1.9.2012					
		-	C. Verify that the available evidence shows that salmon on the site are from a single-year class.	1				Vet. Reports shows single years class					
Footnote	[114] Gaps of up to six months between inputs of smolts derived from the same stripping are acceptable as long as there remains a period of time when the site is fully fallow after harvest.												
Footnote	[115] exception is allowed for: 1) farm sites that have closed, contained production units where there is complete separation of water between units and no sharing of filtration systems or other systems that could spread disease or												
5.4.2	<b>Indicator:</b> Evidence that if the farm suspects an unidentified transmissible agent, or if the farm experiences unexplained increased mortality, [116] the farm has: 1. Reported the issue to the ABM and to the appropriate regulatory authority 2. Increased monitoring and surveillance [117] on the farm and within the ABM 3. Promptly [118] made findings publicly available <b>Requirement:</b> Yes <b>Applicability:</b> All	a. For mortality events logged in 5.1.4a, show evidence that the farm promptly evaluated each to determine whether it was a statistically significant increase over background mortality rate on a monthly basis [116]. The accepted level of significance (for example, p < 0.05) should be agreed between farm and CAB.	A. Review evidence to confirm that the farm evaluated mortality events for statistically significant increases relative to background mortality rates (compare to farm's time-series dataset in 5.1.7a).					1	No unexplained mortalities. Vet reports				
		b. For mortality events logged in 5.1.4a, record whether the farm did or did not suspect (yes or no) an unidentified transmissible agent.	B. Determine if the farm suspected any unidentified transmissible agents associated with mortality events during the most recent production cycle. An abrupt increase in unexplained mortality should be cause for suspicion.							1	No unexplained mortalities		
		c. Proceed to 5.4.2d if, during the most recent production cycle, either: - results from 5.4.2a showed a statistically significant increase in unexplained mortalities; or - the answer to 5.4.2b was 'yes'. Otherwise, Indicator 5.4.2 is not applicable.	C. Confirm that the farm took the correct action based on results from 5.4.2a and 5.4.2b and whether 5.4.2d is applicable to the farm.								1	No unexplained mortalities	
		d. If required, ensure that the farm takes and records the following steps: 1) Report the issue to the ABM and to the appropriate regulatory authority; 2) Increase monitoring and surveillance [117] on the farm and within the ABM; and 3) Promptly (within one month) make findings publicly available.	D. If applicable, verify that the farm keeps records to show how each of the required steps was completed.									1	No unexplained mortalities
		e. As applicable, submit data to ASC as per Appendix VI about unidentified transmissible agents or unexplained increases in mortality. If applicable, then data are to be sent to ASC on an ongoing basis (i.e. at least once per year and for each production cycle).	E. Confirm that client submits data to ASC (Appendix VI) about unidentified transmissible agents or unexplained increases in mortality as applicable.	1									Data submitted to ASC
Footnote	[116] Increased mortality: A statistically significant increase over background rate on a monthly basis.												
Footnote	[117] Primary aim of monitoring and surveillance is to investigate whether a new or adapted disease is present in the area.												
Footnote	[118] Within one month.												
5.4.3	<b>Indicator:</b> Evidence of compliance [119] with the OIE Aquatic Animal Health Code [120] <b>Requirement:</b> Yes <b>Applicability:</b> All	<b>Instruction to Clients for Indicator 5.4.3 - Compliance with the OIE Aquatic Animal Health Code</b> Indicator 5.4.2 requires that farms show evidence of compliance with the OIE Aquatic Animal Health Code (see <a href="http://www.oie.int/index.php?id=171">http://www.oie.int/index.php?id=171</a> ). Compliance is defined as farm	A. Verify that farm management is aware of practices described in the most current version of the code during interviews.	1					Doc in OIE AquaticHealth Code, version 2013				
		a. Maintain a current version of the OIE Aquatic Animal Health Code on site or ensure staff have access to the most current version.	B. Review farm policies and procedures to verify that the farm has documented how its practices are consistent with the OIE Aquatic Animal Health Code and Indicator 5.4.4.	1						Doc in several procedures for health controls, and extra controls if IAS			
		b. Develop policies and procedures as needed to ensure that farm practices remain consistent with the OIE Aquatic Animal Health Code (5.4.3a) and with actions required under indicator 5.4.4.	C. During the on-site inspection look for evidence that policies and procedures in 5.4.3a are implemented. Cross-check in interviews with staff.	1						Well implemented to the staff			
Footnote	[119] Compliance is defined as farm practices consistent with the intentions of the Code, to be further outlined in auditing guidance. For purposes of this standard, this includes an aggressive response to detection of an exotic OIE-notifiable disease on the farm, which includes depopulating the infected site and implementation of quarantine zones in accordance with guidelines from OIE for the specific pathogen. Quarantine zones will likely incorporate mandatory depopulation of sites close to the infected.												
Footnote	[120] OIE 2011. Aquatic Animal Health Code. <a href="http://www.oie.int/index.php?id=171">http://www.oie.int/index.php?id=171</a> .												
	<b>Indicator:</b> If an OIE-notifiable disease [121] is confirmed on the farm, evidence that: 1. the farm has, at a minimum, immediately culled the pen(s) in which the disease was detected	a. Ensure that farm policies and procedures in 5.4.3a describe the four actions required under Indicator 5.4.4 in response to an OIE-notifiable disease on the farm.	A. Review farm policies and procedures (see 5.4.3A) to verify that the farm has documented actions in response to an OIE-notifiable disease.	1					Doc. In procedures. Will be managed by the authority Mattilsynet				
		b. Inform the CAB if an OIE-notifiable disease has been confirmed on the farm during the current production cycle or the two previous production cycles. If yes, proceed to 5.4.4c. If no, then 5.4.4c and 5.4.4d do not apply.	B. Record whether there were any OIE-notifiable diseases confirmed on the farm during the current or two previous production cycles.	1						No diseases in the previous production cycles			



5.4.4	<p>which the disease was detected</p> <p>2. the farm immediately notified the other farms in the ABM [122]</p> <p>3. the farm and the ABM enhanced monitoring and conducted rigorous testing for the disease</p> <p>4. the farm promptly [123] made findings publicly available</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	<p>c. If an OIE-notifiable disease was confirmed on the farm (see 5.4.4b), then retain documentary evidence to show that the farm:</p> <p>1) immediately culled the pen(s) in which the disease was detected;</p> <p>2) immediately notified the other farms in the ABM [122]</p> <p>3) enhanced monitoring and conducted rigorous testing for the disease; and</p> <p>4) promptly (within one month) made findings publicly available.</p>	<p>C. If applicable, review documentary evidence to verify the farm's response complied with the four actions required under Indicator 5.4.4.</p>	1				Doc. In the farms procedures
		<p>d. As applicable, submit data to ASC as per Appendix VI about any OIE-notifiable disease that was confirmed on the farm. If applicable, then data are to be sent to ASC on an ongoing basis (i.e. at least once per year and for each production cycle).</p>	<p>D. Confirm that client submits data to ASC (Appendix VI) about any OIE-notifiable disease that was confirmed on the farm (as applicable).</p>	1				Data submitted to ASC
		-	<p>E. If an OIE-notifiable disease was confirmed on the farm, verify that notifications were made to regulatory bodies required under law and the OIE Aquatic Animal Health Code (122).</p>	1				No diseases in the farm
Footnote	[121] At the time of publication of the final draft standards, OIE-notifiable diseases relevant to salmon aquaculture were: Epizootic haematopoietic necrosis, infectious haematopoietic necrosis (IHV), infectious salmon anemia (ISA), viral haemorrhagic septicemia (VHS) and Cyrodactylidiosis (Cyrodactylus salmositica).							
Footnote	[122] This is in addition to any notifications to regulatory bodies required under law and the OIE Aquatic Animal Health Code.							
Footnote	[123] Within one month.							
<b>Social requirements in the standards shall be audited by an individual who is a lead auditor in conformity with SAAS Procedure 200 section 3.1.</b>								
<b>PRINCIPLE 6: DEVELOP AND OPERATE FARMS IN A SOCIALLY RESPONSIBLE MANNER</b>								
<b>6.1 Freedom of association and collective bargaining [124]</b>								
<b>Compliance Criteria</b>								
Footnote	[124] Bargain collectively: A voluntary negotiation between employers and organizations of workers in order to establish the terms and conditions of employment by means of collective (written) agreements.							
6.1.1	<p><b>Indicator:</b> Evidence that workers have access to trade unions (if they exist) and union representative(s) chosen by themselves without managerial interference</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	<p>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. Farms shall prepare documentation to demonstrate to the auditor that domestic regulation fully meets these criteria.</p>		1				Confidential interviews with employee state that they are free to join any Union on own choice. (Agreement with the relevant union Fellesforbundet)
		<p>b. Union representatives (or worker 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."</p>		1			Confidential interviews are done with the shop steward Audun Reiertsen, site: Solheim	
		<p>c. Trade union representatives (or worker representatives) have access to their members in the workplace at reasonable times on the premises.</p>		1			Confidential interviews state that employee have access to their shop steward etc.	
		<p>d. Be advised that workers and union representatives (if they exist) will be interviewed to confirm the above.</p>		1			Confidential interviews with employee was allowed.	
6.1.2	<p><b>Indicator:</b> Evidence that workers are free to form organizations, including unions, to advocate for and protect their rights</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	<p>a. Employment contract explicitly states the worker's right of freedom of association.</p>		1			Seen contract	
		<p>b. Employer communicates that workers are free to form organizations to advocate for and protect work rights (e.g. farm policies on Freedom of Association; see 6.12.1).</p>		1			Policy and interviews with employees state that workers are free to join a union of their own choice.	
		<p>c. Be advised that workers will be interviewed to confirm the above.</p>		1				
6.1.3	<p><b>Indicator:</b> Evidence that workers are free and able to bargain collectively for their rights</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	<p>a. 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.</p>		1			Shop steward for all site at Lereoy Aurora Audun Reiertsen state that the union Fellesforbundet have good and regular meetings with the top management of Lereoy Aurora.	
		<p>b. Employer has explicitly communicated a commitment to ensure the collective bargaining rights of all workers.</p>		1			Seen agreement between the relevant union Fellesforbundet and the employer representative organization NHO. Further has the Shop Steward and the top management at Lereoy Aurora a signed agreement covering payment and work hour.	
		<p>c. There is documentary evidence that workers are free and able to bargain collectively (e.g. collective bargaining agreements, meeting minutes, or complaint resolutions).</p>		1			Interview and review of documentation state that a collective bargain.	
<b>Criterion 6.2 Child labor</b>								
<b>Compliance Criteria</b>								
6.2.1	<p><b>Indicator:</b> Number of incidences of child [125] labor [126]</p> <p><b>Requirement:</b> None</p> <p><b>Applicability:</b> All except as noted in [125]</p>	<p>a. In most countries, the law states that minimum age for employment is 15 years. There are two possible exceptions:</p> <ul style="list-style-type: none"> <li>- in developing countries where the legal minimum age may be set to 14 years (see footnote 125); or</li> <li>- 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.</li> </ul> <p>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.</p>		1			Confidential interviews, review of documentation (contract, pay slip include personal identification no with age) and walk around indicate no child labour. No employe under 18 year.	
		<p>b. Minimum age of permanent workers is 15 or older (except in countries as noted above).</p>		1			See above	
		<p>c. Employer maintains age records for employees that are sufficient to demonstrate compliance.</p>		1			See above	
Footnote	[125] 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. Minimum age may be 14 if the country allows it under the developing country exceptions in							
Footnote	[126] Child Labor: Any work by a child younger than the age specified in the definition of a child.							

6.2.2	<b>Indicator:</b> Percentage of young workers [127] that are protected [128] <b>Requirement:</b> 100% <b>Applicability:</b> All	a. Young workers are appropriately identified in company policies & training programs, and job descriptions are available for all young workers at the site.	1				Confidential interviews, review of documentation (contract, pay slip include personal identification no with age) and walk around indicate no child labour. No employe under 18 year.
		b. All young workers (from age 15 to less than 18) are identified and their ages are confirmed with copies of IDs.				NA	
		c. Daily records of working hours (i.e. timesheets) are available for all young workers.				NA	
		d. For young workers, the combined daily transportation time and school time and work time does not exceed 10 hours.				NA	
		e. Young workers are not exposed to hazards [129] and do not perform hazardous work [130]. Work on floating cages in poor weather conditions shall be considered hazardous.				NA	
		f. Be advised that the site will be inspected and young workers will be interviewed to confirm compliance.				NA	
Footnote	[127] Young Worker: Any worker between the age of a child, as defined above, and under the age of 18.						
Footnote	[128] Protected: Workers between 15 and 18 years of age will not be exposed to hazardous health and safety conditions; working hours shall not interfere with their education and the combined daily transportation time and school time, and work time						
Footnote	[129] Hazard: The inherent potential to cause injury or damage to a person's health (e.g., unequipped to handle heavy machinery safely, and unprotected exposure to harmful chemicals).						
Footnote	[130] Hazardous work: Work that, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of workers (e.g., heavy lifting disproportionate to a person's body size, operating heavy machinery, exposure to toxic						
<i>Criterion 6.3 Forced, bonded or compulsory labor</i>							
<b>Compliance Criteria</b>							
6.3.1	<b>Indicator:</b> Number of incidences of forced, [131] bonded [132] or compulsory labor <b>Requirement:</b> None <b>Applicability:</b> 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).	1				Review of documentation (contract, pay slip, hour registration) and confidential interviews with employee indicate no forced , bonded or compulsory labour. Employee are free to leave the workplace after work. No withholding of passport, salaries or likely. No fees.
		b. Employees are free to leave workplace and manage their own time.	1				See above
		c. Employer does not withhold employee's original identity documents.	1				See above
		d. Employer does not withhold any part of workers' salaries, benefits, property or documents in order to oblige them to continue working for employer.	1				See above
		e. Employees are not to be obligated to stay in job to repay debt.	1				See above
		f. Maintain payroll records and be advised that workers will be interviewed to confirm the above.	1				See above
Footnote	[131] 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.						
Footnote	[132] Bonded labor: When a person is forced by the employer or creditor to work to repay a financial debt to the crediting agency.						
<i>Criterion 6.4 Discrimination [133]</i>							
<b>Compliance Criteria</b>							
Footnote	[133] Discrimination: Any distinction, exclusion or preference that has the effect of nullifying or impairing equality of opportunity or treatment. Not every distinction, exclusion or preference constitutes discrimination. For instance, a merit- or performance-						
6.4.1	<b>Indicator:</b> Evidence of comprehensive [134] and proactive anti-discrimination policies, procedures and practices <b>Requirement:</b> Yes	a. Employer has written anti-discrimination policy in place, stating that the company does not engage in or support discrimination in hiring, remuneration, access to training, promotion,					
		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 acceptable if proven					
Footnote	[134] Employers shall have written anti-discrimination policies stating that 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.						
6.4.2	<b>Indicator:</b> Number of incidences of discrimination <b>Requirement:</b> None <b>Applicability:</b> All	a. Employer maintains a record of all discrimination complaints. These records do not show evidence for discrimination.	1				Confidential interviews state that every body knows how to handle discrimination complaints.
		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.	1				Confidential interviews and review of agreement between workes and management, contract, payslip and hour counting state that payment, job opportunities, promotion etc. are done on behalf of qualifications.
<i>Criterion 6.5 Work environment health and safety</i>							
<b>Compliance Criteria</b>							
6.5.1	<b>Indicator:</b> Percentage of workers trained in health and safety practices, procedures [135] and policies on a yearly basis <b>Requirement:</b> 100% <b>Applicability:</b> 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.	1				Confidential interviews state that there have been none complains according to discrimination
		b. Employees know and understand emergency response procedures.	1				Confidential interviews state that tehre have been no kind of discrimination according to gender, age, religion etc.
		c. 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					
Footnote	[135] Health and safety training shall include emergency response procedures and practices.						

6.5.2	<p><b>Indicator:</b> Evidence that workers use Personal Protective Equipment (PPE) effectively</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Employer maintains a list of all health and safety hazards (e.g. chemicals).			2	Seen documented procedure handling H&S matters. 2 minor NC.	
		b. Employer provides workers with PPE that is appropriate to known health and safety hazards.	1			Confidential interviews state that employees know and understand emergency procedures.	
		c. Employees receive annual training in the proper use of PPE (see 6.5.1c). For workers who participated in the initial training(s) previously an annual refreshment training may suffice, unless new PPE has been put to use.	1			Seen documentation for regular yearly H&S training. Seen certificate from 20 hours course from December 2013 (fire, first aid, handling of freezing etc.)	
		d. Be advised that workers will be interviewed to confirm the above.					
6.5.3	<p><b>Indicator:</b> Presence of a health and safety risk assessment and evidence of preventive actions taken</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Employer makes regular assessments of hazards and risks in the workplace. Risk assessments are reviewed and updated at least annually (see also 6.5.1a).	1			Seen MSD for H&S hazards	
		b. Employees are trained in how to identify and prevent known hazards and risks (see also 6.5.1c).			1	Filter for gas mask. Filter expire according to markings on the filter in 2019. The filter is attached to the gas mask (packaging has been opened) it is unclear how long the shelf life is actually when the filter packing is breached. All other PPE are in proper condition.	
		c. Health and safety procedures are adapted based on results from risk assessments (above) and changes are implemented to help prevent accidents.	1			Confidential interviews indicate that annual training in use of PPE are done.	
6.5.4	<p><b>Indicator:</b> Evidence that all health- and safety-related accidents and violations are recorded and corrective actions are taken when necessary</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Employer records all health- and safety-related accidents.	1			Confidential interviews indicate that annual training in use of PPE are done.	
		b. Employer maintains complete documentation for all occupational health and safety violations and investigations.	1			Seen documentation for H&S assesment (done 17.10.2013) and H&S walk around are done 6th Nov. 2013.	
		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.	1			Confidential interviews state that employee are trained in how to identify and prevent known hazards and risk.	
		d. Employees working in departments where accidents have occurred can explain what analysis has been done and what steps were taken or improvements made.	1			H&S procedures are implemented and are changes on behalf of risk assesment and registration of near miss, accident and observations.	
6.5.5	<p><b>Indicator:</b> Evidence of employer responsibility and/or proof of insurance (accident or injury) for 100% of worker costs in a job-related accident or injury when not covered under national law</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	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.	1			Review of documentation and confidential interviews state that the site have had no accident in 2013. 4 H&S observation and 21 near miss are registered.	
6.5.6	<p><b>Indicator:</b> Evidence that all diving operations are conducted by divers who are certified</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	Note: If the farm outsources its diving operations to an independent company, the farm shall ensure that auditors have access to specified information sufficient to demonstrate compliance with Indicator 6.5.6. It is the farm's responsibility to obtain copies of relevant documentation (e.g. certificates) from the dive company.	1			No H&S accident in 2013 and until now in 2014	
		a. Employer keeps records of farm diving operations and a list of all personnel involved. In case an external service provider was hired, a statement that provider conformed to all relevant criteria must be made available to the auditor by this provider.	1			Seen documentation related to diving (certificate, H&S check, signed document for acting in accordance with this standard). Skjernøy Dykkerservice are used.	
		b. Employer maintains evidence of diver certification (e.g. copies of certificates) for each person involved in diving operations. Divers shall be certified through an accredited national or	1			See above	
<b>Criterion 6.6 Wages</b>							
<b>Compliance Criteria</b>							
		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.	1			Seen documentation for local min. wage and calculation of minimum basis need for a disent living. Single: 9620 NKK/month, couple with 2 children between 19280 NKK/month and 20666 NKK/month	



6.6.1	<p><b>Indicator:</b> The percentage of workers whose basic wage [136] (before overtime and bonuses) is below the minimum wage [137]</p> <p><b>Requirement:</b> 0 (None)</p> <p><b>Applicability:</b> All</p>	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.	1				Confidential interviews, review of pay slip and hour registration document that employees salary are between 30787 NKK and 47000 NKK/month. Work hour are 10 hour per day in seven days and then 7 day of. No piece rate. A small bonus can be given when the salmon are slaughtered. Overtime are paid with +50 % for overtime between 18.00 and 21.00 and +100 % for the hour after 21.00-08.00. +100% for Sundays. Payment for work in the free week are +50 % for the first 5 hour and then +100%.
		c. Maintain documentary evidence (e.g. payroll, timesheets, punch cards, production records, and/or utility records) and be advised that workers will be interviewed to confirm the above.	1			Seen payslip, hour registration and contract for 3 interviewed employees. Check of these document are done for the month May. 2013, December 2013 and January 2014 (payment are done the 20th in the month for the hole running month))	
Footnote	[136] Basic wage: The wages paid for a standard working week (no more than 48 hours).						
Footnote	[137] If there is no legal minimum wage in a country, basic wages must meet the industry-standard minimum wage.						
6.6.2	<p><b>Indicator:</b> Evidence that the employer is working toward the payment of basic needs wage [138]</p> <p><b>Requirement:</b> Yes</p>	a. 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	1				See 6.6.1 a)
		b. 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.	1				See 6.6.1 a)
		c. Employer demonstrates how they have taken steps toward paying a basic needs wage to their workers.	1				The salary are much higher than the basic needs wage
Footnote	[138] Basic needs wage: A wage that covers the basic needs of an individual or family, including housing, food and transport. This concept differs from a minimum wage, which is set by law and may or may not cover the basic needs of workers.						
6.6.3	<p><b>Indicator:</b> Evidence of transparency in wage-setting and rendering [139]</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Wages and benefits are clearly articulated to workers and documented in contracts.	1				Seen contract, pay slip and hour registration for the 3 interviewed workers covering the month Aug. 2013, Dec. 2013 and Jan. 2014.
		b. The method for setting wages is clearly stated and understood by workers.	1				Confidential interviews with employees state that they all understand their payslip and how their wage are calculated.
		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.	1				Payment are done through bank transfer.
		d. Be advised that workers will be interviewed to confirm the above.	1				Confidential interviews was done with three employees at the site.
Footnote	[139] Payments shall be rendered to workers in a convenient manner.						
<i>Criterion 6.7 Contracts (labor) including subcontracting</i>							
<b>Compliance Criteria</b>							
6.7.1	<p><b>Indicator:</b> Percentage of workers who have contracts [141]</p> <p><b>Requirement:</b> 100%</p> <p><b>Applicability:</b> All</p>	a. Employer maintains a record of all employment contracts.	1				Seen contract, pay slip and hour registration for the 3 interviewed workers covering the month Aug. 2013, Dec. 2013 and Jan. 2014.
		b. There is no evidence for labor-only contracting relationships or false apprenticeship schemes.	1				Confidential interviews, walk around and review of documentation indicate no evidence of labor-only contracting or false apprenticeship.
		c. Be advised that workers will be interviewed to confirm the above.	1				Confidential interviews was done with three employees at the site.
Footnote	[141] Labor-only contracting relationships or false apprenticeship schemes are not acceptable. This includes revolving/consecutive labor contracts to deny benefit accrual or equitable remuneration. False Apprenticeship Scheme: The practice of hiring						
	<p><b>Indicator:</b> Evidence of a policy to ensure social compliance of its suppliers and contractors</p>	a. Farm has a policy to ensure that all companies contracted to provide supplies or services (e.g. divers, cleaning, maintenance) have socially responsible practices and policies.	1				Seen policy and document that show how Lereoy by contract provide suppliers to act in accordance with socially responsible practices and policies.
		b. Producing company has criteria for evaluating its suppliers and contractors. The company keeps a list of approved suppliers and contractors.	1				Seen document which show all suppliers.



6.7.2	<p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	c. Producing company keeps records of communications with suppliers and subcontractors that relate to compliance with 6.7.2.			1	It can not be demonstrated that EWOS (supplier of fish feed) has committed itself to full fill Lerøy's policy of "social compliance. Review of many other supplier document that they have signed to full fill Lereoy's CoC (for instance Skjernnøy Dykkerservice.
<b>Criterion 6.8 Conflict resolution</b>						
<b>Compliance Criteria</b>						
6.8.1	<p><b>Indicator:</b> Evidence of worker access to effective, fair and confidential grievance procedures</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Employer has a clear labor conflict resolution policy for the presentation, treatment, and resolution of worker grievances in a confidential manner.	1			Interview with management and shop steward state that the facility has a clear policy for handling worker grievance in a confidential manner.
		b. Workers are familiar with the company's labor conflict policies and procedures. There is evidence that workers have fair access.	1			Confidential interviews state that employee have fair access to complain.
		c. Maintain documentary evidence (e.g. complaint or grievance filings, minutes from review meetings) and be advised that workers will be interviewed to confirm the above.	1			No evidence of any grievance 2013 and 2014 until now.
6.8.2	<p><b>Indicator:</b> Percentage of grievances handled that are addressed [142] within a 90-day timeframe</p> <p><b>Requirement:</b> 100%</p> <p><b>Applicability:</b> All</p>	a. Employer maintains a record of all grievances, complaints and labor conflicts that are raised.	1			No evidence of any grievance 2013 and 2014 until now.
		b. Employer keeps a record of follow-up (i.e. corrective actions) and timeframe in which grievances are addressed.	1			No grievance in 2013 and 2014 until now.
		c. Maintain documentary evidence and be advised that workers will be interviewed to confirm that grievances are addressed within a 90-day timeframe.	1			Confidential interviews are done with three employees - no sign of any grievance.
Footnote	[142] Addressed: Acknowledged and received, moving through the company's process for grievances, corrective action taken when necessary.					
<b>Criterion 6.9 Disciplinary practices</b>						
<b>Compliance criteria</b>						
6.9.1	<p><b>Indicator:</b> Incidences of excessive or abusive disciplinary actions</p> <p><b>Requirement:</b> None</p> <p><b>Applicability:</b> All</p>	a. Employer does not use threatening, humiliating or punishing disciplinary practices that negatively impact a worker's physical and mental health or dignity.	1			Confidential interviews, walk around and review of documentation (payslip, hour registration, H&S issues etc.) indicate none disciplinary practices with impacts on workers physical and mental health or dignity
		b. Allegations of corporeal punishment, mental abuse [144], physical coercion, or verbal abuse will be investigated by auditors.	1			Nothing to investigate
		c. Be advised that workers will be interviewed to confirm there is no evidence for excessive or abusive disciplinary actions.	1			Confidential interviews are done with three employee at the site.
Footnote	[144] Mental Abuse: Characterized by the intentional use of power, including verbal abuse, isolation, sexual or racial harassment, intimidation or threat of physical force.					
6.9.2	<p><b>Indicator:</b> Evidence of a functioning disciplinary action policy whose aim is to improve the worker [143]</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Employer has written policy for disciplinary action which explicitly states that its aim is to improve the worker [143].	1			Seen written policy for disciplinary actions - these are in agreement with the intention of this standard
		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.	1			Confidential interviews are done with three employees at the site.
Footnote	[143] If disciplinary actions required, progressive verbal and written warnings shall be engaged. The aim shall always be to improve the worker, dismissal shall be the last resort. Policies for bonuses, incentives, access to training and promotions are clearly stated and understood, and not used arbitrarily. Fines or basic wage deductions shall not be acceptable disciplinary practices.					
<b>Criterion 6.10 Working hours and overtime</b>						
<b>Compliance criteria</b>						
Note: working hours, night work and rest periods for workers in agriculture should be in accordance with national laws and regulations or collective agreements (e.g. the Safety and Health in Agriculture Convention, 2001). Additional information can be found on the website of the International Labour Organization ( <a href="http://www.ilo.org">www.ilo.org</a> ).						
		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.	1			Confidential interviews and review of contract, pay slip, hour registration, agreement with the relevant union document that the employer act in accordance with this standard and local law.
6.10.1	<p><b>Indicator:</b> Incidences, violations or abuse of working hours and overtime laws [145]</p> <p><b>Requirement:</b> None</p> <p><b>Applicability:</b> All</p>	b. Records (e.g. time sheets and payroll) show that farm workers do not exceed the number of working hours allowed under the law.	1			Most of the employee work 7 days, 10 hours /day and then 7 days of. Overtime is voluntary and paid in accordance with the agreement with the relevant union (Fellesforbundet). + 50 % for overtime between 18.00 and 21.00 after this + 100 % ?100% for Sundays. If working in the free week: +5+% for the first 5 hours and then + 100%. Working hours is in accordance with the law.

		c. 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).	1			Interview and review of relevant documentation show that the facility act in accordance with local law, this standard and the agreement with the union.
		d. Be advised that workers will be interviewed to confirm there is no abuse of working hours and overtime laws.	1			Confidential interview are done with three employees at the site.
Footnote	[145] In cases where local legislation on working hours and overtime exceed internationally accepted recommendations (48 regular hours, 12 hours overtime), the international standards will apply.					
6.10.2	<p><b>Indicator:</b> Overtime is limited, voluntary [146], paid at a premium rate and restricted to exceptional circumstances</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All except as noted in [146]</p>	a. Payment records (e.g. payslips) show that workers are paid a premium rate for overtime hours.	1			See 6.10.1 b)
		b. 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).	1			See 6.10.1 b). Interviewed employee had between 0 and 216 over time hour in 2013 - this is in accordance with law, agreement with union and this standard. Overtime is always voluntary.
		c. Be advised that workers will be interviewed to confirm that all overtime is voluntary except where there is a collective bargaining agreement which specifically allows for compulsory overtime.	1			Confidential interviews are done with three employees at the site.
Footnote	[146] Compulsory overtime is permitted if previously agreed to under a collective bargaining agreement.					
Footnote	[147] Premium rate: A rate of pay higher than the regular work week rate. Must comply with national laws/regulations and/or industry standards.					
<b>Criterion 6.11 Education and training</b>						
<b>Compliance criteria</b>						
6.11.1	<p><b>Indicator:</b> Evidence that the company encourages and sometimes supports education initiatives for all workers (e.g., courses, certificates and degrees)</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Company has written policies related to continuing education of workers. Company provides incentives (e.g. subsidies for tuition or textbooks, time off prior to exams, flexibility in work schedule) that encourage workers to participate in educational initiatives. Note that such offers may be contingent on workers committing to stay with the company for a pre-arranged time.	1			Written policy for education are seen.
		b. Employer maintains records of worker participation in educational opportunities as evidenced by course documentation (e.g. list of courses, curricula, certificates, degrees).	1			Seen documentation for workers participation in training (H&S training 20 hours, 27-28 Nov. 2013 etc.)
		c. Be advised that workers will be interviewed to confirm that educational initiatives are encouraged and supported by the company.	1			Confidential interviews are done with three employees at the site.
<b>Criterion 6.12 Corporate policies for social responsibility</b>						
<b>Compliance criteria</b>						
6.12.1	<p><b>Indicator:</b> Demonstration of company-level [148] policies in line with the standards under 6.1 to 6.11 above</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Company-level policies are in line with all social and labor requirements presented in 6.1 through 6.11.	1			Company policies are in line with this standard 6.1 - 6.11
		b. Company-level policies (see 6.12.1a) are approved by the company headquarters in the region where the site applying for certification is located.	1			Company policies are approved by the top management
		c. The scope of corporate policies (see 6.12.1a) covers all company operations relating to salmonid production in the region (i.e. all smolt production facilities, grow-out facilities and processing plants).	1			Company policies cover all activities in the salmonid production
		d. The site that is applying for certification provides auditors with access to all company-level policies and procedures as are needed to verify compliance with 6.12.1a (above).	1			Access was given to all required document
Footnote	[148] Applies to the headquarters of the company in a region or country where the site applying for certification is located. The policy shall relate to all of the company's operations in the region or country, including grow-out, smolt production and processing facilities.					
<b>Social requirements in the standards shall be audited by an individual who is a lead auditor in conformity with SAAS Procedure 200 section 3.1.</b>						
<b>PRINCIPLE 7: BE A GOOD NEIGHBOR AND CONSCIENTIOUS CITIZEN</b>						
<b>Criterion 7.1 Community engagement</b>						
<b>Compliance Criteria</b>						
7.1.1	<p><b>Indicator:</b> Evidence of regular and meaningful [149] consultation and engagement with community representatives and organizations</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. The farm pro-actively arranges for consultations with the local community at least twice every year (bi-annually).	1			Doc. Meetings with the local community, F.dir and Mattilsynet 1time in 2013
		b. Consultations are meaningful. OPTIONAL: the farm may choose to use participatory Social Impact Assessment (pSIA) or an equivalent method for consultations.	1			Meaningful consultation with planned agenda. Records doc.
		c. Consultations include participation by representatives from the local community who were asked to contribute to the agenda.	1			As doc. Above
		d. Consultations include communication about, or discussion of, the potential health risks of therapeutic treatments (see Indicator 7.1.3).	1			Environmental questions, health, contingency plans and competence is main questions
		e. Maintain records and documentary evidence (e.g. meeting agenda, minutes, report) to demonstrate that consultations comply with the above.	1			Doc. Reports from the meetings
		f. Be advised that representatives from the local community and organizations may be interviewed to confirm the above.	1			No interviews with representative from local community
Footnote	[149] Regular and meaningful meetings shall be held at least bi-annually with elected representatives of affected communities. The agenda for the meetings should in part be set by the community representatives. Participatory Social Impact Assessment methods may be one option to consider here.					
7.1.2	<p><b>Indicator:</b> Presence and evidence of an effective [150] policy and mechanism for the presentation, treatment and resolution of complaints by community stakeholders and organizations</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Farm policy provides a mechanism for presentation, treatment and resolution of complaints lodged by stakeholders, community members, and organizations.	1			All claims are reported to the headquarter and followed up
		b. The farm follows its policy for handling stakeholder complaints as evidenced by farm documentation (e.g. follow-up communications with stakeholders, reports to stakeholders describing corrective actions).	1			No claims from Solheim
		c. The farm's mechanism for handling complaints is effective based on resolution of stakeholder complaints (e.g. follow-up correspondence from stakeholders).	1			The claims are followed up from the headoffice. Documentation
		d. Be advised that representatives from the local community, including complainants where applicable, may be interviewed to confirm the above.	1			No interviews performed
Footnote	[150] Effective: In order to demonstrate that the mechanism is effective, evidence of resolutions of complaints can be given.					

7.1.3	<p><b>Indicator:</b> Evidence that the farm has posted visible notice [151] at the farm during times of therapeutic treatments and has, as part of consultation with communities under 7.1.1, communicated about potential health risks from treatments</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. Farm has a system for posting notifications at the farm during periods of therapeutic treatment. (use of anaestatic baths is not regarded a therapeutant)	1		Visually signs at the farm are in place reg. To the Norwegian laws. No treatments so far in the farm.
		b. Notices (above) are posted where they will be visible to affected stakeholders (e.g. posted on waterways for fishermen who pass by the farm).	1		Visually signs are placed at the farm close to gateways
		c. Farm communicates about the potential health risks from treatments during community consultations (see 7.1.1)	1		Health and environmental question is a part of the meetings
		d. Be advised that members of the local community may be interviewed to confirm the above.	1		No interviews of the community are performed
Footnote	[151] Signage shall be visible to mariners and, for example, to fishermen passing by the farm.				
<b>Criterion 7.2 Respect for indigenous and aboriginal cultures and traditional territories</b>					
<b>Compliance Criteria</b>					
<b>Instruction to Clients and CABs on Criterion 7.2 - Traditional territories of indigenous groups</b> The ASC Salmon Standard requires that farms must be respectful of the traditional territories of indigenous groups. The indicators listed under Criterion 7.2 are intended to fulfill this requirement for farms that operate in proximity to indigenous or aboriginal people [152].					
7.2.1	<p><b>Indicator:</b> Evidence that indigenous groups were consulted as required by relevant local and/or national laws and regulations</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All farms that operate in indigenous territories or in proximity to indigenous or aboriginal people [152]</p>	a. Documentary evidence establishes that the farm does or does not operate in an indigenous territory (to include farms that operate in proximity to indigenous or aboriginal people [152]). If not, the requirements of 7.2.1 do not apply.			1 Doc for no ingenious groups
		b. Farm management demonstrates an understanding of relevant local and/or national laws and regulations that pertain to consultations with indigenous groups.			1 No ingenious groups
		c. As required by law in the jurisdiction, farm consults with indigenous groups and retains documentary evidence (e.g. meeting minutes, summaries) to show how the process complies with 7.2.1b.			1 No ingenious groups
		d. Be advised that representatives from indigenous groups may be interviewed to confirm the above.			1 No ingenious groups
7.2.2	<p><b>Indicator:</b> Evidence that the farm has undertaken proactive consultation with indigenous communities</p> <p><b>Requirement:</b> Yes [152]</p> <p><b>Applicability:</b> All farms that operate in indigenous territories or in proximity to indigenous or aboriginal people [152]</p>	a. See results of 7.2.1a (above) to determine whether the requirements of 7.2.2 apply to the farm.			1 No ingenious groups
		b. Be advised that representatives from indigenous communities may be interviewed to confirm that the farm has undertaken proactive consultations.			1 No ingenious groups
Footnote	[152] All standards related to indigenous rights only apply where relevant, based on proximity of indigenous territories.				
7.2.3	<p><b>Indicator:</b> Evidence of a protocol agreement, or an active process [153] to establish a protocol agreement, with indigenous communities</p> <p><b>Requirement:</b> Yes</p>	a. See results of 7.2.1a (above) to determine whether the requirements of 7.2.3 apply to the farm.			1 No ingenious groups
		b. Maintain evidence to show that the farm has either: 1) reached a protocol agreement with the indigenous community and this fact is documented; or			1 No ingenious groups
		c. Be advised that representatives from indigenous communities may be interviewed to confirm either 7.2.3b1 or b2 (above) as applicable.			1 No ingenious groups
Footnote	[153] To demonstrate an active process, a farm must show ongoing efforts to communicate with indigenous communities, an understanding of key community concerns and responsiveness to key community concerns through adaptive farm management and other actions.				
<b>Criterion 7.3 Access to resources</b>					
<b>Compliance Criteria</b>					
7.3.1	<p><b>Indicator:</b> Changes undertaken restricting access to vital community resources [154] without community approval</p> <p><b>Requirement:</b> None</p> <p><b>Applicability:</b> All</p>	a. Resources that are vital [155] to the community have been documented and are known by the farm (i.e. through the assessment process required under Indicator 7.3.2).	1		A part of the farms license
		b. The farm seeks and obtains community approval before undertaking changes that restrict access to vital community resources. Approvals are documented.	1		The authorities must be contacted and accept before any movements is performed
		c. Be advised that representatives from the community may be interviewed to confirm that the farm has not restricted access to vital resources without prior community approval.	1		No interviews are performed
Footnote	[154] Vital community resources can include freshwater, land or other natural resources that communities rely on for their livelihood. If a farm site were to block, for example, a community's sole access point to a needed freshwater resource, this would be unacceptable under the Dialogue standard.				
7.3.2	<p><b>Indicator:</b> Evidence of assessments of company's impact on access to resources</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All</p>	a. There is a documented assessment of the farm's impact upon access to resources. Can be completed as part of community consultations under 7.1.1.	1		This is a part of the license from the authorities
		b. Be advised that representatives from the community may be interviewed to generally corroborate the accuracy of conclusions presented in 7.3.2a.	1		This is a part of the license from the authorities
<b>INDICATORS AND STANDARDS FOR SMOLT PRODUCTION</b>					
Footnote	A farm seeking certification must have documentation from all of its smolt suppliers to demonstrate compliance with the following standard. This requirement is, in general, in respect of the standards in Principle 4 through 7, focusing on the aspects that are most relevant for smolt production. [157] The ASC proposes this approach to addressing environmental and social performance during the smolt production process. It anticipates a system to audit smolt production facilities on site. In the meantime, farms will need to work with their smolt suppliers to generate the necessary documentation to demonstrate compliance with the standards. The documentation will be reviewed as part of the audit at the grow-out facility.				
<b>SECTION 8: STANDARDS FOR SUPPLIERS OF SMOLT</b>					
<b>Standards related to Principle 1</b>					
<b>Compliance Criteria (Required Client Actions):</b>			<b>Auditor Evaluation (Required CAB Actions):</b>		
8.1	<p><b>Indicator:</b> Compliance with local and national regulations on water use and discharge, specifically providing permits related to water quality</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All Smolt Producers</p>	a. Identify all of the farm's smolt suppliers. For each supplier, identify the type of smolt production system used (e.g. open, semi or closed systems) and submit this information to ASC (Appendix VI).	A. Review the farm's list of smolt suppliers. Confirm that the client submitted to ASC information on the type of production system used by smolt suppliers (Appendix VI).	1	Two smolt supplier: Laksefjord AS, locnr. 13140 internally supplier and Salten Havbruk, externally supplier
		b. Where legal authorisation related to water quality are required, obtain copies of smolt suppliers' permits.	B. Verify that client obtains copies of legal authorisation from smolt suppliers (if applicable).	1	Doc. From Finnmark Fylkeskommune and Mattilsynet, 27.3.2006, Salten havbruk: NVE-Polarsmolt 08.03.2001and F. Dir. 27.03.2006.
		c. Obtain records from smolt suppliers showing monitoring and compliance with discharge laws, regulations, and permit requirements as required.	C. Verify that farm obtains records from smolt suppliers to show compliance with discharge laws, regulations, and permit requirements.	1	Doc. From Fylkesmannen, 12.12.2012 and Mattilsynet 07.12.2012



			D. Verify that farm keeps records to show how smolt suppliers comply with regulations on discharge and applicable permitting requirements related to water quality.	1				Estimated feed use in tons, doc. From smolt suppliers		
8.2	<b>Indicator:</b> Compliance with labor laws and regulations <b>Requirement:</b> Yes <b>Applicability:</b> All Smolt Producers	a. Obtain declarations from smolt suppliers affirming compliance with labor laws and regulations.	A. Verify farm obtains declaration from smolt suppliers.	1				Doc.declaration from Laksefjord .		
		b. Keep records of supplier inspections for compliance with national labor laws and codes (only if such inspections are legally required in the country of operation; see 1.1.3a)	B. Verify that farm obtains inspection records from suppliers (as applicable).	1				Inspection reports from:F.dir: 12.12.2012, Mattilsynet: 07.12.2012		
<b>Standards related to Principle 2</b>										
			<b>Compliance Criteria (Required Client Actions):</b>				<b>Auditor Evaluation (Required CAB Actions):</b>			
8.3	<b>Indicator:</b> Evidence of an assessment of the farm's potential impacts on biodiversity and nearby ecosystems that contains the same components as the assessment for grow-out facilities under 2.4.1 <b>Requirement:</b> Yes <b>Applicability:</b> All Smolt Producers	<small>Note: If the smolt facility has previously undertaken an independent assessment of biodiversity impact (e.g. as part of the regulatory permitting process), the farm may obtain and use such documents as evidence to demonstrate compliance with Indicator 8.3 as long as all components are covered.</small> a. Obtain from the smolt supplier(s) a documented assessment of the smolt site's potential impact on biodiversity and nearby ecosystems. The assessment must address all components outlined in Appendix I-3.		A. Review the assessment to confirm that it complies with all components outlined in Appendix I-3.			1	Doc. Results from analysis April 2013: Grade 1		
		b. Obtain from the smolt supplier(s) a declaration confirming they have developed and are implementing a plan to address potential impacts identified in the assessment.		B. Review declaration.	1				Declaration from Laksefjord AS nov. 2011	
8.4	<b>Indicator:</b> Maximum total amount of phosphorus released into the environment per metric ton (mt) of fish produced over a 12-month period (see Appendix VIII-1) <b>Requirement:</b> 5 kg/mt of fish produced over a 12-month period; within three years of publication of the SAD standards, 4 kg/mt of fish produced over a 12-month period <b>Applicability:</b> All Smolt Producers	<small>Instruction to Clients for Indicator 8.4 - Calculating Total Phosphorus Released per Ton of Fish Produced</small> <small>Farms must confirm that each of their smolt suppliers complies with the requirement of indicator 8.4. This specifies the maximum amount of phosphorus that a smolt production facility</small>								
		a. Obtain records from smolt suppliers showing amount and type of feeds used for smolt production during the past 12 months.		A. Verify that farm has records for feeds used by smolt suppliers over the relevant time period.	1				Records from Skretting with all types of feed used in the period	
		b. For all feeds used by the smolt suppliers (result from 8.4a), keep records showing phosphorus content as determined by chemical analysis or based on feed supplier declaration (Appendix VIII-1).		B. Verify that farm has records showing that smolt supplier determined phosphorus content in feeds.	1				Doc. Records from Laksefjord	
		c. Using the equation from Appendix VIII-1 and results from 8.4a and b, calculate the total amount of phosphorus added as feed during the last 12 months of smolt production.		C. Confirm that calculations are done according to Appendix VIII-1.	1				Estimated calculations from feed supplier reg. To appendix	
		d. Obtain from smolt suppliers records for stocking, harvest and mortality which are sufficient to calculate the amount of biomass produced (formula in Appendix VIII-1) during the past 12 months.		D. Verify that farm obtained from the smolt supplier all records needed to calculate the amount of biomass produced during the past 12 months.	1				All needed records from the smolt supplier in place	
		e. Calculate the amount of phosphorus in fish biomass produced (result from 8.4d) using the formula in Appendix VIII-1.		E. Confirm that calculations are done according to Appendix VIII-1.	1				Calculations regarding to the requirements demonstrated	
		f. If applicable, obtain records from smolt suppliers showing the total amount of P removed as sludge (formula in Appendix VIII-1) during the past 12 months.		F. As applicable, verify farm has records showing that smolt supplier determined the amount of phosphorus removed from the system as sludge.				1	No phosphorus are removed	
g. Using the formula in Appendix VIII-1 and results from 8.4a-f (above), calculate total phosphorus released per ton of smolt produced and verify that the smolt supplier is in compliance with requirements.		G. Review calculations to confirm that the farm's smolt supplier(s) do not exceed requirements for release of phosphorus.	1				Calculations from the smolt supplier verified and acceptable			
<b>Standards related to Principle 3</b>										
			<b>Compliance Criteria (Required Client Actions):</b>				<b>Auditor Evaluation (Required CAB Actions):</b>			
8.5	<b>Indicator:</b> If a non-native species is being produced, the species shall have been widely commercially produced in the area prior to the publication [156] of the SAD standards <b>Requirement:</b> Yes [157] <b>Applicability:</b> All Smolt Producers except as noted in [157]	a. Obtain written evidence showing whether the smolt supplier produces a non-native species or not. If not, then Indicator 8.5 does not apply.		A. Verify that the farm has evidence that their smolt suppliers do not produce non-native species. If the farm can show that smolt suppliers produce only native species, then Indicator 8.5 does not apply.			1	Doc. In the license: Atlantic salmon and rainbow trout		
		b. Provide the farm with documentary evidence that the non-native species was widely commercially produced in the area before publication of the SAD Standard. (See definition of area under 3.2.1 ).		B. If applicable, verify the farm has evidence from smolt suppliers confirming when the non-native species was first brought into wide commercial production in the area where production is occurring now.				1	No native species	
		c. If the smolt supplier cannot provide the farm with evidence for 8.5b, provide documentary evidence that the farm uses only 100% sterile fish.		C. Review evidence to confirm that smolt suppliers use only 100% sterile fish.					1	No native species
		d. If the smolt supplier cannot provide the farm with evidence for 8.5b or 8.5c, provide documented evidence for each of the following: 1) non-native species are separated from wild fish by effective physical barriers that are in place and well maintained; 2) barriers ensure there are no escapes of reared fish specimens that might survive and subsequently reproduce; and 3) barriers ensure there are no escapes of biological material that might survive and subsequently reproduce.		D. Review evidence that the farm's smolt suppliers comply with each point raised in 8.5d.					1	No native species
		e. Retain evidence as described in 8.5a-d necessary to show compliance of each facility supplying smolt to the farm.		E. Verify that farm retains evidence of compliance by all smolt suppliers.					1	No native species
Footnote	[156] Publication: Refers to the date when the final standards and accompanying guidelines are completed and made publicly available. This definition of publication applies throughout this document.									
Footnote	[157] Exceptions shall be made for production systems that use 100 percent sterile fish or systems that demonstrate separation from the wild 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.									
8.6	<b>Indicator:</b> Maximum number of escapees [158] in the most recent production cycle <b>Requirement:</b> 300 fish [159]	a. Obtain documentary evidence to show that smolt suppliers maintained monitoring records of all incidences of confirmed or suspected escapes, specifying date, cause, and estimated number of escapees.		A. Review the farm's records for escape monitoring by the smolt supplier to confirm completeness and accuracy of information.	1			Declaration from Laksefjord October 2013: No escapes.		
		b. Using smolt supplier records from 8.6a, determine the total number of fish that escaped. Verify that there were fewer than 300 escapees from the smolt production facility in the most recent production cycle.		B. Review the farm's calculation and confirm that the smolt supplier complied with the requirement.	1			Doc. In FishTalk system		
		c. Inform smolt suppliers in writing that monitoring records described in 8.6a must be maintained for at least 10 years beginning with the production cycle for which the farm is first applying for certification (necessary for farms to be eligible to apply for the exception noted in [159]).		C. Confirm that the farm informs their smolt suppliers that they must maintain records for escape monitoring for > 10 years.	1				Doc. Declaration from Laksefjord reg. Escapes	

	<b>Applicability:</b> All Smolt Producers except as noted in [159]	d. If an escape episode occurs at the smolt production facility (i.e. an incident where > 300 fish escaped), the farm may request a rare exception to the Standard [159]. Requests must provide a full account of the episode and must document how the smolt producer could not have predicted the events that caused the escape episode.	D. Review the farm's request for a rare exception to the Standard for an escape event at the smolt production site. Confirm no prior exceptional events were documented during the previous 10 years, or since the date of the start of the production cycle during which the farm first applied for certification. An example of an exceptional event is vandalization of the farm. Events that are not considered exceptional include failures in moorings due to bad weather and boat traffic incidents due to poor marking of the smolt production facility.	1				No escapes in the farm: Doc. Production analysis Oct. 2012 – Oct. 2013
Footnote	[158] Farms shall report all escapes; the total aggregated number of escapees per production cycle must be less than 300 fish.							
Footnote	[159] A rare exception to this standard may be made for an escape event that is clearly documented as being outside of the farm's control. Only one such exceptional episode is allowed in a 10-year period for the purposes of this standard. The 10-year period starts at the beginning of the production cycle for which the farm is applying for certification. The farmer must demonstrate that there was no reasonable way to predict the events that caused the episode. Extreme weather (e.g. 100-year storm) or							
8.7	<b>Indicator:</b> Accuracy [160] of the counting technology or counting method used for calculating the number of fish <b>Requirement:</b> ≥98% <b>Applicability:</b> All Smolt Producers	a. Obtain records showing the accuracy of the counting technology used by smolt suppliers. Records must include copies of spec sheets for counting machines and common estimates of error for hand-counts. B. Review records to verify that accuracy of the smolt supplier's counting technology or counting method is ≥ 98%.	A. Confirm that the farm keeps records of counting accuracy for the counting technology or method used on site at stocking and harvest. B. Verify that farm has records showing that the accuracy of the smolt supplier's counting technology or counting method is ≥ 98%.	1			1	Doc. Aqua Scan Fisketellere, used in the farm Missing doc. Of accuracy from the smolt supplier Salten Havbruk
Footnote	[160] Accuracy shall be determined by the spec sheet for counting machines and through common estimates of error for any hand counts.							
<b>Standards related to Principle 4</b>								
		<b>Compliance Criteria (Required Client Actions):</b>		<b>Auditor Evaluation (Required CAB Actions):</b>				
8.8	<b>Indicator:</b> Evidence of a functioning policy for proper and responsible treatment of non-biological waste from production (e.g., disposal and recycling) <b>Requirement:</b> Yes <b>Applicability:</b> All Smolt Producers	a. From each smolt supplier obtain a policy which states the supplier's commitment to proper and responsible treatment of non-biological waste from production. It must explain how the supplier's policy is consistent with best practice in the area of operation.		A. Confirm that the farm has relevant policies on file from each smolt supplier and review those policies to verify the farm's suppliers are in compliance with the requirement.				
8.9	<b>Indicator:</b> Presence of an energy-use assessment verifying the energy consumption at the smolt production facility (see Appendix V subsection 1 for guidance and required components of the records and assessment) <b>Requirement:</b> Yes, measured in kilojoule/mt fish/production cycle <b>Applicability:</b> All Smolt Producers	Note: see instructions for Indicator 4.6.1. a. Obtain records from the smolt supplier for energy consumption by source (fuel, electricity) at the supplier's facility throughout each year. b. Confirm that the smolt supplier calculates total energy consumption in kilojoules (kj) during the last year. c. Obtain records to show the smolt supplier calculated the total weight of fish in metric tons (mt) produced during the last year. d. Confirm that the smolt supplier used results from 8.9b and 8.9c to calculate energy consumption on the supplier's facility as required and that the units are reported as kilojoule/mt fish/production cycle. e. Obtain evidence to show that smolt supplier has undergone an energy use assessment in compliance with requirements of Appendix V-1. Can take the form of a declaration detailing a-e.		A. Verify that the farm obtains records for energy consumption from smolt suppliers. B. Verify that the farm has reviewed the supplier's calculations for completeness and accuracy. C. Verify that the farm has supplier records for total weight of fish produced during the last year. D. Verify that the farm has records to show that the smolt supplier's calculations are complete and accurate. E. Verify that the farm has evidence that its smolt supplier(s) has undergone an energy use assessment verifying the supplier's energy consumption.				
8.10	<b>Indicator:</b> Records of greenhouse gas (GHG [161]) emissions [162] at the smolt production facility and evidence of an annual GHG assessment (See Appendix V, subsection 1) <b>Requirement:</b> Yes <b>Applicability:</b> All Smolt Producers	Note: see instructions for Indicator 4.6.2. a. Obtain records of greenhouse gas emissions from the smolt supplier's facility. b. Confirm that, on at least an annual basis, the smolt supplier calculates all scope 1 and scope 2 GHG emissions in compliance with Appendix V-1. c. For GHG calculations, confirm that the smolt supplier selects the emission factors which are best suited to the supplier's operation. Confirm that the supplier documents the source of the emissions factors. d. For GHG calculations involving conversion of non-CO2 gases to CO2 equivalents, confirm that the smolt suppliers specify the Global Warming Potential (GWP) used and its source. e. Obtain evidence to show that the smolt supplier has undergone a GHG assessment in compliance with requirements Appendix V-1 at least annually.		A. Verify that the farm obtains records of GHG emissions from smolt suppliers. B. Verify that the farm confirms that calculations by smolt suppliers are done annually and in compliance with Appendix V-1. C. Verify that the farm has records from smolt suppliers for all emissions factors used and their sources. D. Verify that the farm has records from smolt suppliers for all GWPs used and their sources. E. Verify that the farm has evidence that smolt suppliers undergo a GHG assessment annually and that the methods used are in compliance with requirements of Appendix V-1.				
Footnote	[161] For the purposes of this standard, GHGs are defined as the six gases listed in the Kyoto Protocol: carbon dioxide (CO <sub>2</sub> ); methane (CH <sub>4</sub> ); nitrous oxide (N <sub>2</sub> O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF <sub>6</sub> ).							
Footnote	[162] GHG emissions must be recorded using recognized methods, standards and records as outlined in Appendix V.							
<b>Standards related to Principle 5</b>								
		<b>Compliance Criteria (Required Client Actions):</b>		<b>Auditor Evaluation (Required CAB Actions):</b>				
8.11	<b>Indicator:</b> Evidence of a fish health management plan, approved by the designated veterinarian, for the identification and monitoring of fish diseases and parasites <b>Requirement:</b> Yes <b>Applicability:</b> All Smolt Producers	a. Obtain a copy of the supplier's fish health management plan for the identification and monitoring of fish disease and parasites. b. Keep documentary evidence to show that the smolt supplier's health plans were approved by the supplier's designated veterinarian.		A. Verify that the farm obtains copies of fish health management plans from smolt suppliers. B. Verify that farm has evidence that supplier's fish health management plan was approved by designated veterinarian.				
8.12	<b>Indicator:</b> Percentage of fish that are vaccinated for selected diseases that are known to present a significant risk in the region and for which an effective vaccine exists [163] <b>Requirement:</b> 100% <b>Applicability:</b> All Smolt Producers	a. Maintain a list of diseases that are known to present a significant risk in the region, developed by farm veterinarian and supported by scientific evidence. b. Maintain a list of diseases for which effective vaccines exist for the region, developed by the farm veterinarian and supported by scientific evidence. c. Obtain from the smolt supplier(s) a declaration detailing the vaccines the fish received. d. Demonstrate, using the lists from 8.12a-c above, that all salmon on the farm received vaccination against all selected diseases known to present a significant risk in the regions for which an effective vaccine exists.		A. Review list and the supporting analysis. B. Review list and the supporting analysis. C. Verify client has the list from the smolt supplier(s). D. Cross-check lists to verify that all required vaccines were received by all batches of smolt received by the farm during the current production cycle.				
Footnote	[163] The farm's designated veterinarian is responsible for undertaking and providing written documentation of the analysis of the diseases that pose a risk in the region and the vaccines that are effective. The veterinarian shall determine which vaccinations to use and demonstrate to the auditor that this decision is consistent with the analysis.							
	<b>Indicator:</b> Percentage of smolt groups [164] tested for select	<b>Instruction to clients for Indicator 8.13-- Testing of Smolt for Select Diseases</b> The farm is responsible for developing and maintaining a list of diseases of regional concern for which each smolt group should be tested. The list of diseases shall include diseases that						



8.13	diseases of regional concern prior to entering the grow-out phase on farm <b>Requirement:</b> 100% <b>Applicability:</b> All Smolt Producers	a. Obtain from the smolt supplier a list of diseases of regional concern for which smolt should be tested. List shall be supported by scientific analysis as described in the Instruction above. b. Obtain from the smolt supplier(s) a declaration and records confirming that each smolt group received by the farm has been tested for the diseases in the list (8.13a).	A. Review list. If auditor has questions about the list, request and review supporting analysis. B. Verify records show that each smolt group was tested prior to entering the water at the farm (the grow-out site).			1		Doc. List: IPN could be possible Analysis sent Vet. Inst: 24.7.13, tested 14.8.2013. OK
Footnote	[104] A smolt group is any population that shares disease risk, including environment, husbandry and host factors that might contribute to sharing disease agents for each group. Only diseases that are proven, or suspected, as occurring in seawater (and for which seawater fish-to-fish transmission is a concern) but originating in freshwater should be on the list of diseases tested. The designated veterinarian to the smolt farm is required to evaluate, based on scientific criteria and publicly available information							
8.14	<b>Indicator:</b> Detailed information, provided by the designated veterinarian, of all chemicals and therapeutants used during the smolt production cycle, the amounts used (including grams per ton of fish produced), the dates used, which group of fish were treated and against which diseases, proof of proper dosing and all disease and pathogens detected on the site <b>Requirement:</b> Yes <b>Applicability:</b> All Smolt Producers	a. Obtain from the smolt supplier(s) a detailed record of all chemical and therapeutant use for the fish sold to the farm that is signed by their veterinarian and includes: - name of the veterinarian prescribing treatment; - product name and chemical name; - reason for use (specific disease) - date(s) of treatment; - amount (g) of product used; - dosage; - mt of fish treated; - the WHO classification of antibiotics (also see note under 5.2.8); and - the supplier of the chemical or therapeutant.	A. Review records of chemical and therapeutant use for completeness and confirm the records were signed by a qualified veterinarian.	1				Doc. In fish health journal. Last report 26.9.2013: 0 treatments
8.15	<b>Indicator:</b> Allowance for use of therapeutic treatments that include antibiotics or chemicals that are banned [165] in any of the primary salmon producing or importing countries [166] <b>Requirement:</b> Yes <b>Applicability:</b> All Smolt Producers	a. Provide to the smolt supplier the list (see 5.2.2a) of therapeutants, including antibiotics and chemicals, that are proactively banned for use in food fish for the primary salmon producing and importing countries listed in [166]. b. Inform smolt supplier that the treatments on the list cannot be used on fish sold to a farm with ASC certification. c. Compare therapeutant records from smolt supplier (8.14) to the list (8.15a) and confirm that no therapeutants appearing on the list (8.15a) were used on the smolt purchased by the farm.	A. Verify list has been provided and is consistent with the list in 5.2.2a. B. Verify that the farm informed the smolt supplier. C. Review farm's comparison to verify accuracy.			1		No banned therapeutic used No banned therapeutic used No treatments performed in the farm
Footnote	[165] "Banned" means proactively prohibited by a government entity because of concerns around the substance.							
Footnote	[166] For purposes of this standard, those countries are Norway, the UK, Canada, Chile, the United States, Japan and France.							
8.16	<b>Indicator:</b> Number of treatments of antibiotics over the most recent production cycle <b>Requirement:</b> ≤ 3 <b>Applicability:</b> All Smolt Producers	a. Obtain from the smolt supplier records of all treatments of antibiotics (see 8.14a). b. Calculate the total number of treatments of antibiotics from their most recent production cycle.	A. Verify farm obtains treatment records from smolt supplier (See also 8.14A). B. Confirm that the smolt supplier used ≤ 3 treatments of antibiotics over the most recent production cycle.			1		No treatments performed in the farm No treatments performed in the farm
8.17	<b>Indicator:</b> Allowance for use of antibiotics listed as critically important for human medicine by the WHO [167] <b>Requirement:</b> None [168] <b>Applicability:</b> All Smolt Producers	a. Provide to smolt supplier(s) a current version of the WHO list of antimicrobials critically and highly important for human health [167]. b. Inform smolt supplier that the antibiotics on the WHO list (8.17a) cannot be used on fish sold to a farm with ASC certification. c. Compare smolt supplier's records for antibiotic usage (8.14, 8.15a) with the WHO list (8.17a) to confirm that no antibiotics listed as critically important for human medicine by the WHO were used on fish purchased by the farm.	A. Confirm that the farm provided smolt supplier with the current copy of the WHO list of antibiotics. B. Verify that the farm informed the smolt supplier. C. Review farm's comparison to verify accuracy.			1		No treatments performed in the farm No treatments performed in the farm No treatments performed in the farm
Footnote	[167] The 3rd edition of the WHO list of critically and highly important antimicrobials was released in 2009 and is available at: <a href="http://www.who.int/foodborne_disease/resistance/CIA_3.pdf">http://www.who.int/foodborne_disease/resistance/CIA_3.pdf</a> .							
Footnote	[168] If the antibiotic treatment is applied to only a portion of the pens on a farm site, fish from pens that did not receive treatment are still eligible for certification.							
8.18	<b>Indicator:</b> Evidence of compliance [169] with the OIE Aquatic Animal Health Code [170] <b>Requirement:</b> Yes <b>Applicability:</b> All Smolt Producers	<b>Note:</b> see instructions for Indicator 5.4.3 regarding evidence of compliance with the OIE Aquatic Animal Health Code. a. Provide the smolt supplier with a current version of the OIE Aquatic Animal Health Code (or inform the supplier how to access it from the internet). b. Inform the supplier that an ASC certified farm can only source smolt from a facility with policies and procedures that ensure that its smolt production practices are compliant with the OIE Aquatic Animal Health Code. c. Obtain a declaration from the supplier stating their intent to comply with the OIE code and copies of the smolt suppliers policies and procedures that are relevant to demonstrate compliance with the OIE Aquatic Animal Health Code.	A. Verify that farm has provided the smolt supplier with copies of (or access to) the OIE Aquatic Animal Health Code. B. Confirm that the farm informed its smolt supplier(s) that any supplier to an ASC certified farm must show compliance with the OIE Aquatic Animal Health Code. C. Review the smolt supplier's declaration and supporting policies and procedures to verify compliance with the OIE Aquatic Animal Health Code.	1				Doc. OIE Aquatic Animal Health Code Doc. Sent to Laksefjord Declaration sent to the smolt supplier are verified
Footnote	[169] Compliance is defined as farm practices consistent with the intentions of the Code, to be further outlined in auditing guidance. For purposes of this standard, this includes an aggressive response to detection of an exotic OIE-notifiable disease on the farm, which includes depopulating the infected site and implementation of quarantine zones in accordance with guidelines from OIE for the specific pathogen. Exotic signifies not previously found in the area or had been fully eradicated (area declared free							
Footnote	[170] OIE 2011. Aquatic Animal Health Code. <a href="http://www.oie.int/index.php?id=171">http://www.oie.int/index.php?id=171</a> .							
<b>Standards related to Principle 6</b>								
<b>Compliance Criteria (Required Client Actions):</b>			<b>Auditor Evaluation (Required CAB Actions):</b>					
8.19	<b>Indicator:</b> Evidence of company-level policies and procedures in line with the labor standards under 6.1 to 6.11 <b>Requirement:</b> Yes <b>Applicability:</b> All Smolt Producers	a. Obtain copies of smolt supplier's company-level policies and procedures and a declaration of compliance with the labor standards under 6.1 to 6.11. b. Review the documentation and declaration from 8.19a to verify that smolt supplier's policies and procedures are in compliance with the requirements of labor standards under 6.1 to 6.11.	A. Verify that farm obtains copies of company-level policies and procedures from all of its smolt suppliers and a declaration of compliance. B. Review supplier documents provided by the farm to verify compliance of the smolt supplier's policies and procedures with labor requirements.	1			1	Doc. Copies of Licenses from Finnmark Fylkeskommunen and Mattilsynet 18.2.2011 Missing procedure regarding labor standard from Salten Havbruk
<b>Standards related to Principle 7</b>								
<b>Compliance Criteria (Required Client Actions):</b>			<b>Auditor Evaluation (Required CAB Actions):</b>					
8.20	<b>Indicator:</b> Evidence of regular consultation and engagement with community representatives and organizations <b>Requirement:</b> Yes <b>Applicability:</b> All Smolt Producers	<b>Instruction to Clients for Indicator 8.20 - Consultation and Engagement with Community Representatives:</b> Farms must comply with Indicator 7.1.1 which requires that farms engage in regular consultation and engagement with community representatives and organizations. Under Indicator 8.20 a. From each smolt supplier obtain documentary evidence of consultations and engagement with the community. b. Review documentation from 8.20a to verify that the smolt supplier's consultations and community engagement complied with requirements.	A. Verify that farm obtains required information from each smolt supplier. B. Review evidence for compliance.				1	Missing doc. From consultations with community from Salten Havbruk Missing doc. From stakeholders

8.21	<p><b>Indicator:</b> Evidence of a policy for the presentation, treatment and resolution of complaints by community stakeholders and organizations</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All Smolt Producers</p>	a. Obtain a copy of the smolt supplier's policy for presentation, treatment and resolution of complaints by community stakeholders and organizations.	A. Verify that farm obtains copies of supplier's complaints procedures from each of its smolt suppliers.			1	Missing doc. Policy from salten havbruk from the local community and stakeholders doc.	
8.22	<p><b>Indicator:</b> Where relevant, evidence that indigenous groups were consulted as required by relevant local and/or national laws and regulations</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All Smolt Producers</p>	a. Obtain documentary evidence showing that the smolt supplier does or does not operate in an indigenous territory (to include farms that operate in proximity to indigenous or aboriginal people (see Indicator 7.2.1). If not then the requirements of 8.22 do not apply.	A. Review evidence to determine whether Indicator 8.22 is applicable to the farm's smolt supplier(s).	1			No indigenous groups consulted	
		b. Obtain documentation to demonstrate that, as required by law in the jurisdiction: smolt supplier consulted with indigenous groups and retains documentary evidence (e.g. meeting minutes, summaries) to show how the process complies with 7.2.1b; OR smolt supplier confirms that government-to-government consultation occurred and obtains documentary evidence.	B. Verify that the smolt supplier complies with relevant requirements.	1			Missing documentation from Laksefjord from regarding meetings with the community	
8.23	<p><b>Indicator:</b> Where relevant, evidence that the farm has undertaken proactive consultation with indigenous communities</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All Smolt Producers</p>	a. See results of 8.22a (above) to determine whether the requirements of 8.23 apply to the smolt supplier.	A. Review evidence to determine whether Indicator 8.23 is applicable to the farm's smolt supplier(s).	1			No indigenous groups consulted, meetings with the local community doc.	
		b. Where relevant, obtain documentary evidence that smolt suppliers undertake proactive consultations with indigenous communities.	B. Review documentary evidence to confirm that the smolt supplier has undertaken proactive consultations.	1			Doc. From the meetings with the community	
<b>ADDITIONAL REQUIREMENTS FOR OPEN (NET-PEN) PRODUCTION OF SMOLT</b>								
<p><b>Instruction to Clients for Indicators 8.24 through 8.31 - Requirements for Smolt Produced in Open Systems:</b> In addition to the requirements above, if the smolt is produced in an open system, evidence shall be provided that the following are met:</p> <p>Client shall provide documentary evidence to the CAP about the production system(s) from which the smolt is produced.</p>								
<p><b>Scope or Exemption Allowed Under Indicator 8.24:</b></p> <p>For the first audit, farms that were stocked prior to the publication of the standard on June 13, 2012 may request an exemption, applicable for that production cycle, to the requirement to obtain a declaration from the farm's smolt supplier stating whether the supplier operates in water bodies with native salmonids.</p>								
8.24	<p><b>Indicator:</b> Allowance for producing or holding smolt in net pens in water bodies with native salmonids</p> <p><b>Requirement:</b> None</p> <p><b>Applicability:</b> All Smolt Producers Using Open Systems</p>	a. Obtain a declaration from the farm's smolt supplier stating whether the supplier operates in water bodies with native salmonids.	A. Verify that the farm obtains relevant declarations from its smolt supplier(s).			1	No net pens in water bodies	
		b. Request smolt suppliers to identify all water bodies in which they operate net pens for producing smolt and from which facilities they sell to the client.	B. Confirm that the farm obtains information on the water bodies in which its suppliers are operating net pens for smolt production.			1	No net pens in water bodies	
		c. For any water body identified in 8.24b as a source of smolt for the farm, determine if native salmonids are present by doing a literature search or by consulting with a reputable authority. Retain evidence of search results.	C. Review search results and cross-check against the other lines of evidence for salmonid distribution in the region (e.g. results from 3.1.5a).			1	No net pens in water bodies	
8.25	<p><b>Indicator:</b> Allowance for producing or holding smolt in net pens in any water body</p>	a. Take steps to ensure that by June 13, 2017 the farm does not source smolt that was produced or held in net pens.	A. Prior to the effective date, confirm that the client understands the requirement of Indicator 8.25. After the effective date, confirm that the farm is in full compliance with the requirement.			1		
8.26	<p><b>Indicator:</b> Evidence that carrying capacity (assimilative capacity) of the freshwater body has been established by a reliable entity [171] within the past five years [172], and total biomass in the water body is within the limits established by that study (see Appendix VIII-5 for minimum requirements)</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All Smolt Producers Using Open Systems</p>	a. For the water body(s) where the supplier produces smolt for the client (see 8.24b), obtain a copy of the most recent assessment of assimilative capacity.	A. Verify that the farm obtains copies of assimilative capacity assessments as are relevant to the water bodies in which its smolt supplier(s) operate.			1		
		b. Identify which entity was responsible for conducting the assessment (8.26a) and obtain evidence for their reliability.	B. Verify that the assessment was done by a reliable entity (e.g. government body or academic institution).			1		
		c. Review the assessment (8.26a) to confirm that it establishes a carrying capacity for the water body, it is less than five years old, and it meets the minimum requirements presented in Appendix VIII-5.	C. Verify that the assessment report is in compliance with requirements.			1		
		d. Review information to confirm that the total biomass in the water body is within the limits established in the assessment (8.26a).	D. Verify that the farm confirms that total biomass in the water body does not exceed carrying capacity.			1		
		e. If the study in 8.26a is more than two years old and there has been a significant increase in nutrient input to the water body since completion, request evidence that an updated assessment study has been done.	E. Verify that the farm requests an updated assessment (< 2 years old) if there was a significant increase in nutrient inputs to the water body.			1		
Footnote	[171] E.g., Government body or academic institution.							
Footnote	[172] If the study is older than two years, and there has been a significant increase in nutrient input to the water body since the completion of the study, a more recent assessment is required.							
8.27	<p><b>Indicator:</b> Maximum baseline total phosphorus concentration of the water body (see Appendix VIII-6)</p> <p><b>Requirement:</b> ≤ 20 µg/l [174]</p> <p><b>Applicability:</b> All Smolt Producers Using Open Systems</p>	<b>Instruction to Clients for Indicator 8.27 and 8.28 - Monitoring TP and DO in Receiving Water for Open Smolt Systems:</b>						
		Farms must confirm that any smolt supplier using an open (net pen) system is also engaged in monitoring of water quality of receiving waters. Requirements for the supplier's water quality monitoring shall be in compliance with the requirements of Appendix VIII-6.		A. Verify that the farm obtains copies of the smolt supplier's monitoring records (datasets, protocols, reports).			1	
		b. Obtain from smolt suppliers a map with GPS coordinates showing the sampling locations.	B. Review and confirm that the spatial arrangement of sampling stations complies with requirements of Appendix VIII-6.			1		
		c. Obtain from smolt suppliers the TP monitoring results for the past 12 months and calculate the average value at each sampling station.	C. Review TP monitoring results.			1		
		d. Compare results to the baseline TP concentration established below (see 8.29) or determined by a regulatory body.	D. Repeat comparison.			1		
Footnote	[173] This concentration is equivalent to the upper limit of the Mesotrophic Trophic Status classification as described in Appendix VIII-7.							
8.28	<p><b>Indicator:</b> Minimum percent oxygen saturation of water 50 centimeters above bottom sediment (at all oxygen monitoring locations described in Appendix VIII-6)</p> <p><b>Requirement:</b> ≥ 50%</p> <p><b>Applicability:</b> All Smolt Producers Using Open Systems</p>	<b>Note:</b> see instructions for Indicator 8.27.						
		a. Obtain evidence that smolt supplier conducted water quality monitoring in compliance with the requirements (see 8.27a).	A. Verify as above (see 8.27A).			1		
		b. Obtain from smolt suppliers the DO monitoring results from all monitoring stations for the past 12 months.	B. Verify that farm has copies of supplier's DO monitoring results.			1		
	<p><b>Indicator:</b> Trophic status classification of water body remains unchanged from baseline (see Appendix VIII-7)</p>	c. Review results (8.28b) to confirm that no values were below the minimum percent oxygen saturation.	C. Review the supplier's monitoring results to verify compliance with requirements.			1		
		a. Obtain documentary evidence from the supplier stating the trophic status of water body if previously set by a regulator body (if applicable).	A. Verify that farm obtains evidence from suppliers (as applicable).			1		
		b. If the trophic status of the waterbody has not been classified (see 8.29a), obtain evidence from the supplier to show how the supplier determined trophic status based on the concentration of TP.	B. Review how supplier determined trophic status (as applicable).			1		



8.29	<p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All Smolt Producers Using Open Systems</p>	<p>c. As applicable, review results from 8.29b to verify that the supplier accurately assigned a trophic status to the water body in accordance with the table in Appendix VIII-7 and the observed concentration of TP over the past 12 months.</p> <p>d. Compare the above results (8.29c) to trophic status of the water body as reported for all previous time periods. Verify that there has been no change.</p>	<p>C. Verify that the farm conducts a review of the supplier's results and conclusions regarding trophic status of the water body.</p> <p>D. Review the farm's conclusion to verify compliance with the requirement.</p>				1	
8.30	<p><b>Indicator:</b> Maximum allowed increase in total phosphorus concentration in lake from baseline (see Appendix VIII-7)</p> <p><b>Requirement:</b> 25%</p> <p><b>Applicability:</b> All Smolt Producers Using Open Systems</p>	<p>a. Determine the baseline value for TP concentration in the water body using results from either 8.29a or 8.29b as applicable.</p> <p>b. Compare the baseline TP concentration (result from 8.30a) to the average observed TP concentration over the past 12 months (result from 8.27e).</p> <p>c. Verify that the average observed TP concentration did not increase by more than 25% from baseline TP concentration.</p>	<p>A. Verify that farm has supplier's records for baseline TP concentrations in the water body.</p> <p>B. Repeat comparison.</p> <p>C. Repeat calculation to verify compliance with the requirement.</p>				1	
8.31	<p><b>Indicator:</b> Allowance for use of aeration systems or other technological means to increase oxygen levels in the water body</p> <p><b>Requirement:</b> None</p>	<p>a. Obtain a declaration from the farm's smolt supplier stating that the supplier does not use aeration systems or other technological means to increase oxygen levels in the water bodies where the supplier operates.</p>	<p>A. Verify that the farm obtains relevant declarations from its smolt supplier(s).</p>				1	
<p><b>ADDITIONAL REQUIREMENTS FOR SEMI-CLOSED AND CLOSED PRODUCTION OF SMOLTS</b></p>								
<p><b>Instructions to Client for indicators 8.32-8.35 - Requirement for smolts produced in open systems</b></p>								
<p>Client shall provide documentary evidence to the CAP about the production system(s) from which they source smolt.</p>								
<p>Footnote [176] Production systems that don't discharge into fresh water are exempt from these standards.</p>								
8.32	<p><b>Indicator:</b> Water quality monitoring matrix completed and submitted to ASC (see Appendix VIII-2)</p> <p><b>Requirement:</b> Yes [177]</p> <p><b>Applicability:</b> All Smolt Producers Using Semi-Closed or Closed Production Systems</p>	<p>a. Obtain records from smolt suppliers showing that water quality monitoring was conducted at least quarterly (i.e. once every 3 months) over the last 12 months.</p> <p>b. Obtain water quality monitoring matrix from smolt suppliers and review for completeness.</p> <p>c. Submit the smolt supplier's water quality monitoring matrix to ASC as per Appendix VIII-2 and Appendix VI at least once per year.</p>	<p>A. Verify that farm has records to show smolt suppliers conducted water quality monitoring at the required frequency and duration.</p> <p>B. Confirm that smolt supplier's water quality monitoring program covers sampling of all parameters given in Appendix VIII-2 (i.e. TP, TN, BOD, TSS).</p> <p>C. Confirm that client has submitted to ASC the smolt supplier's water quality monitoring matrix for the last 12 month period.</p>			1		Data not submitted to ASC
<p>Footnote [177] See Appendix VI for transparency requirements for 8.32.</p>								
8.33	<p><b>Indicator:</b> Minimum oxygen saturation in the outflow (methodology in Appendix VIII-2)</p> <p><b>Requirement:</b> 60% [178,179]</p> <p><b>Applicability:</b> All Smolt Producers Using Semi-Closed or Closed Production Systems</p>	<p>a. Obtain the water quality monitoring matrix from each smolt supplier (see 8.32b).</p> <p>b. Review the results (8.33a) for percentage dissolved oxygen saturation in the effluent to confirm that no measurements fell below 60% saturation.</p> <p>c. If a single DO reading (as reported in 8.33a) fell below 60%, obtain evidence that the smolt supplier performed daily continuous monitoring with an electronic probe and recorder for at least a week demonstrating a minimum 60% saturation at all times (Appendix VIII-2).</p>	<p>A. Verify that the farm obtains water quality monitoring records from its smolt supplier(s).</p> <p>B. Review the supplier's monitoring results to verify compliance with requirements.</p> <p>C. Verify that the farm obtained evidence for enhanced DO monitoring by the smolt supplier (as applicable).</p>				1	
<p>Footnote [178] A single oxygen reading below 60 percent would require daily continuous monitoring with an electronic probe and recorder for at least a week demonstrating a minimum 60 percent saturation at all times.</p>								
<p>Footnote [179] See Appendix VI for transparency requirements for 8.33.</p>								
8.34	<p><b>Indicator:</b> Macro-invertebrate surveys downstream from the farm's effluent discharge demonstrate benthic health that is similar or better than surveys upstream from the discharge (methodology in Appendix VIII-3)</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All Smolt Producers Using Semi-Closed or Closed Production Systems</p>	<p>a. Obtain documentation from smolt supplier(s) showing the results of macro-invertebrate surveys.</p> <p>b. Review supplier documents (8.34a) to confirm that the surveys followed the prescribed methodology (Appendix VIII-3).</p> <p>c. Review supplier documents (8.34a) to confirm the survey results show that benthic health is similar to or better than upstream of the supplier's discharge.</p>	<p>A. Verify that the farm has documentation of macro-invertebrate benthic surveys from its smolt supplier(s).</p> <p>B. Review documents from the farm's smolt supplier to verify the surveys were conducted as required in Appendix III-3.</p> <p>C. Review documents to verify that survey results demonstrate compliance with requirements.</p>				1	
8.35	<p><b>Indicator:</b> Evidence of implementation of biosolids (sludge) Best Management Practices (BMPs) (Appendix VIII-4)</p> <p><b>Requirement:</b> Yes</p> <p><b>Applicability:</b> All Smolt Producers Using Semi-Closed or Closed Production Systems</p>	<p>a. Maintain a copy of smolt supplier's biosolids (sludge) management plan and confirm that the plan addresses all requirements in Appendix VIII-2.</p> <p>b. Obtain from smolt suppliers a process flow diagram (detailed in Appendix VIII-2) showing how the farm is dealing with biosolids responsibly.</p> <p>c. Obtain a declaration from smolt supplier stating that no biosolids were discharged into natural water bodies in the past 12 months.</p> <p>d. Obtain records from smolt suppliers showing monitoring of biosolid (sludge) cleaning maintenance, and disposal as described in Appendix VIII-2.</p>	<p>A. Review the supplier's biosolids management plan for compliance with Appendix VIII-2.</p> <p>B. Review the supplier's biosolids process flow diagram for compliance with Appendix VII-2.</p> <p>C. Confirm that farm obtains declarations from smolt suppliers.</p> <p>D. Review the farm's records from smolt suppliers to verify there is evidence of implementation of biosolids management as required in Appendix VIII-2.</p>				1	

Non-conformity Number	CLAUSE	DESCRIPTION OF THE NON CONFORMITY:	ROOT CAUSE	CORRECTIVE ACTION REPORT	ACCEPTED	Major	Minor
1	2.1.1 E	Results to verify that redox potential of sediments complies with the requirement at each sampling station outside the AZE are not finished at audit	The results from the AZE was finished 19. december 2013. In the rapport there is the (enclosed 1) methode described and the samling results. All the samplings are below the requirements in the ASC standard.	The analysis company was asked to measure zulfidia, but it seems to be difficult to performe. The company are not so sure that this will give another results. It will be performred a new stream measuring in the site, to see if the bottom stream is weak. If this will be the results, the authorities will be asked if it is possible to move the site	17/02/2014	1	
2	2.1.1 G	Results are not submitted to ASC	The results was ready for ASC 19. december 2013.	The report was sent to ASC in january 2014. See enclosed 2.	17/02/2014		1
3	2.1.2 E	Results to verify that Shannon Wiener score of sediments is > 3 at each sampling station outside the AZE is not finished at audit	The results from AZE was finished 19. december 2013. In the report ( see enclosed 1 there is a description of the methode and the results of Shannon Wiener score. 2 of 4 samples was closely below the ASC requirements >3.	The comany is asked to see if the other methodes could give better results and they will in the future see if they give other results.	17/02/2014	1	
4	2.1.2 H	Documentary evidence to show how scores were obtained, was not finished at audit	The results was ready 19. december 2013. The methode is described in the report and was performed by an akkredited laboratory (Marine Bunndyr AS).	Enclosed 1: The report from the company.	17/02/2014		1
5	2.1.2 I	Results are not submitted to ASC	The reult fom the analysis was ready in january 2014.	The report was submitted to ASC 14. february 2014. See enclosed 2.	17/02/2014		
6	2.1.3 B	Sediment samples taken within the AZE, for determination of abundance and taxonomic composition of macro fauna was not finished at audit	The results was ready in february 2014. The methode is described in the report from the akkredited laboratory (Marine Bunndyr AS):	The report is in enclosed 2.	17/02/2014		1
7	2.1.3 D	Documentary evidence to show how taxa were identified and how counts were obtained was not finished at audit	The results was ready in february 2014. The methode is decribed in the report and was performed by akkredited laboratory (Marine Bunndyr AS):	The report is in enclosed 1.	17/02/2014	1	
8	2.1.3 E	Results are not submitted to ASC	The results from AZE was ready 19. december 2013.	The report was submitted to ASC ni januayr 2014. See enclosed 1.	17/02/2014		1
9	2.1.3.C	Analyze of highly abundant taxa an pollution indicator species was not finished at audit	The results was ready 19. december 2013. The methode is described in the report and performed by anakkredited laboratory (Marine Bunndyr AS):	All the results are in compliance with the requirements for the ASC standard (see enclosed 1).	17/02/2014	1	
10	2.5.7. A	Missing risk assessment of each lethal incidents	There was not ready any documentation of risk assessments for lethal incidents.	The risk assessment is performed and a procedure is implemented. Records must be filled in and sent to the headoffice each month. See enclosed 3.	17/02/2014		1
11	4.1.1 C	For the feed producer used by the farm, it is not confirmed that an audit of the producer was recently done by an audit firm or CAB against an ASC-acknowledged certification scheme, there is a copy of the most recent audit report for each feed producer.	Copy of certificates from the feeding companies (Ewos og Skretting) was shown during the audit. Regarding to the auditor this was not acceptable.	Parts of audits from Skretting and Ewos and copies from certificated, see enclosed 4.	17/02/2014	1	
13	4.1.1 F	There are no audit results (rapports) at site	Copies of certificates from the feeding companies(Ewos og Skretting) was shown during the audit. Regarding to the auditor this was not acceptable.	Parts from audit reports from Skretting og Ewos, included certificated enclosed.	17/02/2014	1	
14	4.3.2 B	Missing fish source score for deliveries of fishfeed to Solheim seafarm	Overview from feedsuppliers from Fish Source Score was shown during the audit. Parts of this showed that some spieces (1,5 % of totally) is not regarded to the requirements in the ASC standard.	By next audit it schoud be documented that the requirements of the standard is filled. See enclosed 5 the overview from Fish Source Score and the totally feed used in Solheim since the fish came in june 2013. There it is shown that it is used small parts of sandeel from Danmark and Norway.	17/02/2014	1	
15	4.3.3 A	There is not a rapport from third party traceability program to show compliance with 4.3.2	There was not any treceability report shown during the audit in november 2013.	See enclosed 6, the treceability system for Ewos og Skretting. In enclosed 7 and 8 there is 3. party reports.	17/02/2014	1	
16	4.3.3 B	There is a list of species used, but not a demonstration of third party chain-of-custody in place for the species used	It was not any report from 3. parties during theaudit.	Documents regarding the traceability for Ewos and Skretting is shown, see enclosed 6. See enclosed 7 and 8 for auditreports from 3. parties.	17/02/2014		1
17	4.4.1 C	There is not a third party audit of feed suppliers showing evidence that supplier's responsible sourcing policies are implemented.	It was not clealy documented during the audit.	See enclosed 4, parts of the audit reports from Skretting og Ewos, included certificates.	17/02/2014		1
18	6.5.1	Missing documentation for monthly check of the lifeboat.	It was not documentation shown during the audit that the MOB . vessel was controlled each month.	The procedure for controls of security equipments in the site is evaluated and there shall be from now records in the websystem that the MOB- vessel is controlled. See procedure in enclosed 9.	17/02/2014		X



19	6.5.1	Safety Data Sheets for Alculu-S is outdated. SDS at the site is dated 21/7 2007 latest edition is dated 31/12 2012	Some of the product datasheets was not last version as it must be regarding to the requirements. By last updating Ecoonline was not used, but it is available.	The procedures for the chemicals have been updated. The site manager is responsible for the use of chemicals, included updating of the product datasheets. The site manager have now access to Ecoonline ( database) the quality coordinator controls all the changes in Ecoonline. Product datasheets passed used by date are now in the last versions. See enclosed 10.	17/02/2014		x
20	6.5.2.	Filter for gas mask. Filter expire according to markings on the filter in 2019. The filter is attached to the gas mask (packaging has been opened) it is unclear how long the shelf life is actually when the filter packing is broached.	During the audit it was not possible to document if a filter was past used by date.	The supplier is contacted and he has told us that the real date is the used by date for the filter. Anyway, this is regarding to how much it have been used. If the user can notice smells of gas it have to be changed at once. It is now bought new closed boxes for this equipment and the procedure is implemented. See enclosed 11.	17/02/2014		x
21	6.7.2	It can not be demonstrated that EWOS (supplier of fish feed) has committed itself to full fill Lerøy's policy of "social compliance.	During the audit, Ewos code of conduct for suppliers was shown	Statement from Ewos documented in enclosed 12.	17/02/2014		x
22	8.3.A	Missing risk assessment of potential impact of bioversity from the smolt supplier Salten Havbruk	At the time of the audit, there was no risk assessment from Salten Havbruk.der	Documented risk assessment in enclosed 14. Documents in enclosed 22 shows the operating area and overview of the different analysis performed in Skjerstadsfjorden ( <a href="http://www.saltenaqua.no">http://www.saltenaqua.no</a> ).	17/02/2014	1	
23	8.7.B	Missing doc. Of 98 % accuracy counting technology from Salten Havbruk	It was documented accuracy from the smolt supplier.	Regarding declaration from the smolt supplier Salten Havbruk there are nonon conformities when vaccination of the fish and when it is controlled regarding to the wellboat. See enclosed 15.	17/02/2014		1
24	8.11.A	Missing Fish Health Plan ( VHP) from salten Havbruk	Salten Havbruk is working with GlobalGAP certification and regarding to this they are working with VHP.	Statement from Labora Fiskehelsetjenesten regarding the work with VHP for Salten Havbruk, see enclosed 16 and 17.	17/02/2014		1
25	8.11. B	Missing signed VHP	No signed VHP from Salten Havbruk	Signed VHP will be sent as soon as it is finished.	17/02/2014		1
26	8.12.A	Missing list of diseases in VHP	The VHP from salten Havbruk is not finished yet.	The VHP has a documented list of all diseases, see enclosed 17.	17/02/2014		1
27	8.19.B	Missing doc. Procedure regarding labor standard from Salten Havbruk	Missing documentation from Salten Havbruk.	Statement from Salten Havbruk doc. In enclosed 18. . There are meetings each month regarding to information to all the employees.	17/02/2014		1
28	8.20.A	No doc. of consultations with community from Salten Havbruk	There was documented reports from Mattilsynet og Arbeidstilsynet and NVE og Fiskeridirektoratet.	Statement from the manager in Salten Havbruk, see enclosed 19.	17/02/2014		1
29	8.20.B	No evidence of consultations with the community	Missing documentation from Laksefjord.	Documentd contact info from the contacts between Laksefjord og Lebesby Community see enclosed 20.	17/02/2014		1
30	8.21.A	Missing doc. Regarding policy for stakeholders from Salten Havbruk	Missing documentation from stakeholders in the audit.	Statement from the Manager in Salten Havbruk documented in enclosed 19. Overview of support from the community in enclosed 21.	17/02/2014		1

**Confidential data for commercially sensitive information**

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Aquaculture operations for salmon

All major and minor non-conformities





; were closed by 17 Februar 2014



*Including Written of other documented information and Bureau Veritas Certification responses to each submission.*

*If no submission, precise " no submissions received"*

Public Consultation period	Stakeholder submission	BV Response
Audit announcement ( 30 days prior to audit)		
	no submissions received	
Draft public report ( 10 days from publication)		

06/04/2017  
Aquaculture operations for salmon

All major and minor non-conformities were closed by 17 Februar 2014