Form 3 - Public Disclosure Form

This form shall be submitted by the CAB no less than thirty (30) working days prior to any onsite audit * *. Any changes to this information shall be submitted to the ASC within five (5) days of the change and not later than 10 days before the planned audit. If later, a new announcement is submitted and another 30 days rule will apply.*

The information on this form shall be public * *and should be posted on the ASC website within three (3) days of submission.*

This form shall be written to be readable to the stakeholders and other interested parties.

This form should be translated into local languages when appropriate

PDF 1 Public Disclosure Form

PDF 1.1 Name of CAB	DNV GL
PDF 1.2 Date of Submission	07.12.2017
PDF 1.3 CAB Contact Person	
PDF 1.3.1 Name of Contact Person	Jan Petter Kosmo
PDF 1.3.2 Position in the CAB's organization	Lead Auditor

* Except unannounced audits, for which this form will be sent to the ASC and AAB without being published

PDF 1.3.3 Mailing address	
PDF 1.3.4 Email address	jan.petter.kosmo@dnvgl.com
PDF 1.3.5 Phone number	+47 957 48 769
PDF 1.3.6 Other	

PDF 1.4 ASC Name of Client

PDF 1.4.1 Name of Company	Nova Sea AS
PDF 1.4.2 Name of Contact Person	Sabine Fossmo
PDF 1.4.3 Position in the client's organization	Quality manager
PDF 1.4.4 Mailing address	Nova Sea AS 8764 LOVUND, NORWAY
PDF 1.4.5 Email address	sabine.fossmo@novasea.no

PFD 1.4.6 Phone number	+47 976 89 537
PDF 1.4.7 Other	Phone +47 75 09 19 00

PDF 1.5 Unit of Certification

PDF 1.5.1 Single Site	Single site
PDF 1.5.2 Multi-site	
PDF 1.5.3 Group certification	

PDF 1.6 Sites to be audited

Site Name	GPS Coordinates	Other Location Information	Planned Site Audit(s)	Date of planned audit
Renga	66o35.253N / 13o05.816E	North Norway, Nordland County, Rødøy Municipality. Receiving water body: Rødøyfjorden.	IA	Week 5-6 in 2018

PDF 1.7 Species and Standards

Standard	Species (scientific name) produced	Included in scope (Yes/No)	ASC endorsed standard to be used	Version Number

Salmon	Salmo salar	Yes	ASC	1.1

PDF 1.8 Planned Stakeholder Consultation(s) and How Stakeholders can Become Involved

Name/organization	Relevance for this audit	How to involve this stakeholder (in-person/phone interview/input submission)	When stakeholder may be contacted	How this stakeholder will be contacted
Mattilsynet	Authorities	Written notifications with request for submissions, and if needed telephone	Before audit and when draft report is published	Written notifications
Nordland Fylkeskommune	Local authorities	Written notifications with request for submissions, and if needed telephone	Before audit and when draft report is published	Written notifications
Kystverket	Authorities	Written notifications with request for submissions, and if needed telephone	Before audit and when draft report is published	Written notifications
Fiskeridirektoratet	Authorities	Written notifications with request for submissions, and if needed telephone	Before audit and when draft report is published	Written notifications
Fylkesmannen i Nordland	Local authorities	Written notifications with request for submissions, and if needed telephone	Before audit and when draft report is published	Written notifications
Nordland Fylkes Fiskarlag	Fishermen organization	Written notifications with request for submissions, and if needed telephone	Before audit and when draft report is published	Written notifications

Rødøy Distriktsfiskarlag	Fishermen organization	Written notifications with request for submissions, and if needed telephone	Before audit and when draft report is published	Written notifications
Rødøy Kommune	Local authorities	Written notifications with request for submissions, and if needed telephone	Before audit and when draft report is published	Written notifications
Klokkergården	Tourist centre	Written notifications with request for submissions, and if needed telephone	Before audit and when draft report is published	Written notifications

PDF 1.9 Proposed Timeline

PDF 1.9.1	Contract Signed:	27.10.2017
PDF 1.9.2	Start of audit:	29.01.2018
PDF 1.9.3	Onsite Audit(s):	Week 5-6 in 2018
PDF 1.9.4	Determination/ Decision:	The final certification decision has been taken after needed activities, as per ASC Farm Certification and Accreditation Requirements version 2.1 August 2017. • Compliant and thus certified.

PDF 1.10 Audit Team

	Column1	Name	ASC Registration Referenc
PDF 1.10.1	Lead Auditor	Jan Petter Kosmo	
PDF 1.10.2	Technical Experts	Kjell Roar Bekkevold	
PDF 1.10.3	Social Auditor	Darius Pamakstys	

ASC Audit Report - Opening

General Requirements

C1 Audit reports shall be written in English and in the most common language spoken in the areas where the operation is located.

C2 Audit reports may contain confidential annexes for commercially sensitive information.

C2.1 The CAB shall agree the content of any commercially sensitive information with the applicant, which can still be accessible by the ASC and the appointed accreditation body upon request as stipulated in the certification contract.

C2.2 The public report shall contain a clear overview of the items which are in the confidential annexes.

C2.3 Except for the annexes that contain commercially sensitive information all audit reports will be public.

C3 The CAB is solely responsible for the content of all reports, including the content of any confidential annexes.

C4 Reporting Deadlines* for certification and re-certification audit reports

C4.1 Within thirty (30) days of the completing of the audit the CAB shall submit a draft report in English and the national or most common language spoken in the area where the operation is located.

C4.2 Within five (5) days the ASC should post the draft report to the ASC website.

C4.3 The CAB shall allow stakeholders and interested parties to comment on the report for fifteen (15) days.

C4.4 Within twenty (20) days of the close of comments, the CAB shall submit the final report to the ASC in English and the national or most common language spoken in the area where the operation is located.

C4.5 Within five (5) days the ASC should post the final report to the ASC website.

C4.6 Audit reports shall contain accurate and reproducable results.

C5 Reporting Deadlines* for surveillance audit reports

C5.1 Within ninety (90) days of the completing of the audit the CAB shall submit a final report in English and the national or most common language spoken in the area where the operation is located.

C5.2 Within five (5) days the ASC should post the final report to the ASC website.

C5.3 Audit reports shall contain accurate and reproducable results.

1 Title Page

1.1 Name of Applicant	Nova Sea AS
1.2 Report Title [e.g. Public Certification Report]	ASC Initial audit, draft report
1.3 CAB name	DNV GL
1.4 Name of Lead Auditor	Jan Petter Kosmo
1.5 Names and positions of report authors and reviewers	Jan Petter Kosmo - lead auditor, author of report Darius Pamakstys - social auditor Kjell Roar Bekkevold - lead auditor, reviewer
1.6 Client's Contact person: Name and Title	Sabine Fossmo - Quality manager
1.7 Date	09.04.2018

2 Table of Contents

3 Glossary

Terms and abbreviations that are specific to this audit report and that are not otherwise defined in the ASC glossary	1) MOM-B and MOM-C are surveys of benthic environment at or near farm, according to NS 9410 (Norwegian Standard 9410). 2) NFSA is Norwegian Food safety Authority. 3) ISA is Infectious salmon anemia virus. 4) BNW is basic need wage. 5) VR is variation request. 5) FHP is Fish health plan. 6) CV is "curriculum vitae" for a fish group. 7) IK is internal control system. 7) NINA is Norwegian institute for Nature Research. 9) IMR is Institute of Marine Research. 10) PD is Pancreas Disease. 11) VHP is Veterinary Health Plan. 12) HMS is HSE (Health, Safety and Environment). 13) H&S is Health and Safety. 14) PPE is Personal Protective Equipment. 15) OHS is Occupational Health and Safety.

4 Summary

A concise summary of the report and findings. The summary shall be written to be readable to the stakeholders and other interested parties.

4.1	A brief description of the scope of the audit	ASC audit of Renga 22796, a seasite
4.2	A brief description of the operations of the unit of certification	Production of Atlantic salmon (Salmo salar)
4.3	Type of unit of certification (*select only one type of unit of certification in the list)*	Single farm
4.4	Type of audit (*select all the types of audit that apply in the list)*	Initial audit 2018
4.5	A summary of the major findings	Refer to report section II Audit template and IV Audit Report - Closing for NCs found during audit
4.6	The Audit determination	The Audit determination at Final report stage: Major Non conformities are closed. Corrective actions for closing or acceptance of Minor Non conformities, subject to corrective action plan for Minor Non conformities are presented and approved by DNV GL. There were no stakeholders` submissions in response to the publication of the draft report within the designated period of time, with the conclusion that certification, based on the outcome of this initial audit, is now recommended. The final certification decision has been taken after needed activities, as per ASC Farm Certification and Accreditation Requirements Version 2.1 August 2017. The organization described in section 3 of this report for the activities described in the section 3 itself is: • Compliant and thus certified

5 CAB Contact Information

5.1	CAB Name	DNV GL
5.2	CAB Mailing Address	Veritasveien 1, 1322 Høvik, Norway
5.3	Email Address	jan.petter.kosmo@dnvgl.com
5.4	Other Contact Information	Phone to DNV GL +47 67 57 99 00

6 Background on the Applicant

6.1	Information on the Public Disclosure Form (Form 3) except 1.2-1.3 All information updated as necessary to reflect the audit as conducted.	Yes
6.2	A description of the unit of certification (*for initial audit)* / changes, if any (*for surveillance and recertification audits)*	The site is a conventional floating cage salmon farm. The production cages are floating circular cages with pointed nets. Central on the farm is a feed barge, with centralized feeding system and visual/camera control of feeding. All installations are certified according to Norwegian legislation "NS-9415 NYTEK" regulations standard. Smolts supplied by Helgeland Smolt.
6.3	Other certifications currently held by the unit of certification	
6.4	Other certification(s) obtained before this audit	
6.5	Estimated annual production volumes of the unit of certification of the current year	2018: 3533 tons
6.6	Actual annual production volumes of the unit of certification of the previous year *(mandatory for surveillance and recertification audits)*	2017: 0 tons
6.7	Production system(s) employed within the unit of certification *(select one or more in the list)*	Net cages at sea
6.8	Number of employees working at the unit of certification	11

7 Scope

7.1	The Standard(s) against which the audit was conducted, including version number	ASC Salmon Standard, version 1.1 April 2017
7.2	The species produced at the applicant farm	Atlantic salmon (Salmo salar)
7.3	A description of the scope of the audit including a description of whether the unit of certification covers all production or harvest areas (i.e. ponds) managed by the operation or located at the included sites, or whether only a sub-set of these are included in the unit of certification. If only a sub-set of production or harvest areas are included in the unit of certification these shall be clearly named.	The site is a seasite with 10 cages of which all are in use for this generation. All cages were covered by the audit

7.4	The names and addresses of any storage, processing, or distribution sites included in the operation (including subcontracted operations) that will potentially be handling certified products, up until the point where product enters further chain of custody.	Fish goes directly from the seasite to the slaughterhouse. Only approved wellboats is used during transhipments of salmon between the site and holding cages/harvest plant. Biosecurity legislation and implemented QMS management system and procedures at the site and within the company prevent the wellboats from visiting other salmon farms/sites without cleaning/disinfection. The possibility for mixture of salmon in holding cages from salmon from other farm/sites is also prevented by biosecurity legislation and implemented QMS management system and procedures at the site and within the harvesting/processing plant used. There are slaughtered fish from only one holding cage at a time in the harvest/processing plant Transports are always identifiable on production unit level (cage). All information is kept in electronic system FishTalk and in hard copies.
7.5	Description of the receiving water body(ies).	The farm is located in the water area Rødøy - Lurøy in Nordland county. Site`s receiving water-body is Rødøyfjorden (Rødøy municipality). Regional water-body authority is Nordland County. This is a sheltered coastal/fiord water area. Categorized as a sheltered coastal/fiord, of Euhaline nature (>30‰ salinity). Ecological quality is defined as good. Chemical condition is not defined in public documentation. Details www.vann-nett.no The site is under voluntary ABM system. There is other salmon farming activity in the area. There are natural wild salmon populations in the area. Overview of salmon watercourses in the area are available in map tools from the Environment Agency / Salmon Registry: http://lakseregister.fylkesmannen.no/

8 Audit Plan

8.1	The names of the auditors and the dates when each of the following were undertaken or completed: conducting the audit, writing of the report, reviewing the report, and taking the certification decision.	Jan Petter Kosmo, lead auditor Darius Pamakstys, social auditor Kjell Roar Bekkevold, technical reviewer Onsite audit was finished 08.02.2018 Initial audit draft report sent to technical review 23.02.2018 Technical Review of Initial audit draft report were finished 25.02.2018 Initial audit draft report sent to ASC 05.03.2018 Final Report finished 09.04.2018 Technical review of Final Report finished 13.04.2018 Final report sent ASC 17.04.2018

8.2 Previous Audits (if applicable):

	NC reference number	Standard clause reference	Closing deadline - status - closing date of each NC
8.2.1 Initial audit - mm/yyyy			
Surveillance audit 1 - mm/ yyyy			
Surveillance audit 2 - mm/ yyyy			
Recertification audit - mm/ yyyy			
Unannounced audit - mm/ yyyy			
NC close-out audit - mm/ yyyy			
Scope extension audit mm/ yyyy			

8.4 Audit plan as implemented including:

	Dates	Locations
8.4.1 Desk Reviews	04.12.2018	
8.4.2 Onsite audits	29.01.2018 - 09.02.2018	Onsite
8.4.3 Stakeholder interviews and Community meetings	20.03.2018	Submission from stakeholder ASC, refer to section 8.8
8.4.4 Draft report sent to client	22.02.2018	Initial audit 2018 report

8.4.5	Draft report sent to ASC	05.03.2018	Initial audit 2018 report
8.5.5	Final report sent to Client and ASC	17.04.2018	Initial audit 2018 report

8.7 Names and affiliations of individuals consulted or otherwise involved in the audit including: representatives of the client, employees, contractors, stakeholders and any observers that participated in the audit.

Odd Strøm - Managing director
Sabine Fossmo - Quality manager
Odd Stensland - Production manager sea
Bjørn Olvik - Sales director
Stian Amble - Advisor biology/quality
Samuel Anderson - Environment controller
Line Holm - Quality manager Helgeland Smolt and Sundsfjord Smolt
Torleif Olaisen - HR
Kristian Pettersen - HR advisor
Julie Huru - HR manager
Birgitte Fjellgaard - HR advisor
Viktor Arntsen - site manager Rødøy
Kristin Ottesen - veterinarian HaVet

The audit was held in the company's office at Lovund, focusing on technical and legal matters, mainly, with relevant operational and administrative staff present. The second part of the audit comprised a visit to the site, covering remaining technical and administrative issues and completed the social responsibility issues. The audit was conducted as document reviews (digital and hard-copy information) as well as interviews conducted with relevant staff including site staff, typically a combination of document reviews and staff interviews.The interviews pertinent to the Social Responsibility Section of the ASC Salmon Standard were held in conditions allowing for confidentiality of the dialogues and under no constraints of free speech of the interviewees. These interviewees are not named in the report for the same reason. Demonstrations of equipment and processes took place, relevant to the scope of the audit, according to the ASC Salmon Standard v1.1 and following guidelines in the ASC Salmon Audit Manual v1.1.

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

Name of stakeholder (if permission given to make name public)	Relevance to be contacted	Date of contact	CAB responded Yes/No	Brief summary of points Raised	Use of comment by CAB	Response sent to stakeholder
ASC		20.03.2018	Yes	4.3.2. - If the fishmeal / oil source of sprat does not meet the ASC standard, It would be helpful for third-party readers if you could to explain why this is not considered a serious infringement. Jan Petter Kosmo 23.03.2018: Sprat used in feed >6 months ago, this is first audit. Corrected in report.		23.03.2018
ASC		20.03.2018	Yes	6.5.6 - Have all divers been certified? Darius Pamakstys 21.03.2018: Issue 2 points to certificates, what were in order, but the NC is for statement of conformity of diving company. I see only ordinary H&S risk and higher Social accountability risk.		23.03.2018

ASC		20.03.2018	Yes	It would be helpful to clarify exactly when the starting point of the CoC is. From the report there is ambiguity, is the starting point at the farm gate? If so, that would be fine, but if not then which chain of custody certificate is covering the wellboat? Jan Petter Kosmo 23.03.2018: As indicated in in report page “ASC Audit Report – Traceability” point 10.6.3 “Products are authorized to enter an ASC Chain of Custody certification at the point where the fish is moved from the wellboat/live fish carrier and delivered direct to the harvest/processing plant. From this point the ASC Salmon Standard certificate stops and the ASC CoC certificate takes over.” the starting point of CoC is when fish are delivered to harvest plant, i.e. farmer has responsibility for wellboat.		23.03.2018

AUDIT MANUAL - ASC Salmon Standard v1.1

Scope: species belonging to the genus *Salmo* and *Oncorhynchus*

INSTRUCTION TO FARMS/AUDITORS:

This audit manual was developed to accompany version 1.1 of the ASC Salmon Standard.

References in this Audit Manual to Appendices can be found in the ASC Salmon Standard document.

		Compliance Criteria (Required Client Actions):	Audit evidence 1. Write down all audit evidence for each compliance criterion (CC). Audit evidence (including evidence of conformity and nonconformity) should be recorded so that the audit can be repeated by different audit team. 2. Replace explanatory text in the 'Audit Evidence' column as appropriate. 3. If you see any Compliance Criteria which is not listed below, please describe also in the cells below.	Evaluation (Per indicator, select one category in the drop-down menu)	Description of NC Provide an explanation of the reason(s) for the classification of any NCs or non-applicability	Value/ Metric Provide values - if applicable for the respective Indicator
PRINCIPLE 1: COMPLY WITH ALL APPLICABLE NATIONAL LAWS AND LOCAL REGULATIONS						
Criterion 1.1 Compliance with all applicable local and national legal requirements and regulation.						
1.1.1	**Indicator:** Presence of documents demonstrating compliance with local and national regulations and requirements on land and water use **Requirement:** Yes **Applicability:** All	a. Maintain digital or hard copies of applicable land and water use laws.	Quality system "Landax" with link to relevant laws, regulations and requirements in procedures. Link to applicable laws and regulations on frontpage of Landax and automatic email to quality manager if new version.	Compliant		
		b. Maintain original (or legalized copies of) lease agreements, land titles, or concession permit on file as applicable.	Discharge license from Fylkesmannen i Nordland 13.10.2014 for Renga MAB 4680 ton. License from Nordland Fylkeskommune 15.11.2015 for Bukkøya MAB 3600 ton, Renga MAB 4680 ton and Stokkasjøen MAB 4680 ton, licenses N R 0001, N R 0006, N R 0008, N R 0030, N AH0001 and N AH0002.			
		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).	No inspections by Directorate of Fisheries in 2017/2018. No inspections by Fylkesmannen i Nordland in 2017/2018. No inspections of NFSA in 2017/2018.			
		d. Obtain permits and maps showing that the farm does not conflict with national preservation areas.	Not within conservation area, seen map from Norwegian Environment Agency with protected areas. Impact on the area is evaluated in permit documents and further risk assessed.			
1.1.2	**Indicator:** Presence of documents demonstrating compliance with all tax laws **Requirement:** Yes **Applicability:** 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.	Nova Sea AS registered in official register "Brønnøysundregistrene" with nr. 961056268. Authorised auditor statement for 2016 from pwc - P.E.P 10.05.2017.	Compliant		
		b. Maintain copies of tax laws for jurisdiction(s) where company operates.	Online access to lovdata.no with laws and regulations.			
		c. Register with national or local authorities as an "aquaculture activity".	Nova Sea AS registered in official register "Brønnøysundregistrene" with nr. 961056268. License from Nordland Fylkeskommune 15.11.2015 for Bukkøya MAB 3600 ton, Renga MAB 4680 ton and Stokkasjøen MAB 4680 ton, licenses N R 0001, N R 0006, N R 0008, N R 0030, N AH0001 and N AH0002. Operation plan ("Driftsplan") for 2018 approved by Directorate of Fisheries 10.01.2018 for sites in Nova Sea AS, includes Kalvhylla present generation 2017G (planned new generation 01.01.2019, 1,2 million smolt), Bukkøya present generation 2017G (planned new generation 15.07.2019, 1,0 million smolt), Renga present generation 2017G (planned new generation 16.07.2019, 1,3 million smolt), Rensøya N present generation 2017G (planned new generation 16.09.2018, 0,8 million smolt) and Stokkasjøen present generation 2017G (planned new generation 01.01.2019, 1,35 million smolt).			
1.1.3	**Indicator:** Presence of documents demonstrating compliance with all relevant national and local labor laws and regulations **Requirement:** Yes **Applicability:** All	a. Maintain copies of national labor codes and laws applicable to farm (scope is restricted to the farm sites within the unit certification.)	Online access to lovdata.no with laws and regulations.	Compliant		
		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).	No inspections by "Arbeidstilsynet" registered in present generation on site.			
1.1.4	**Indicator:** Presence of documents demonstrating compliance with regulations and permits concerning water quality impacts **Requirement:** Yes **Applicability:** All	a. Obtain permits for water quality impacts where applicable.	Discharge license from Fylkesmannen i Nordland 13.10.2014 for Renga MAB 4680 ton. Operation plan ("Driftsplan") for 2018 approved by Directorate of Fisheries 10.01.2018 for sites in Nova Sea AS, includes Kalvhylla present generation 2017G (planned new generation 01.01.2019, 1,2 million smolt), Bukkøya present generation 2017G (planned new generation 15.07.2019, 1,0 million smolt), Renga present generation 2017G (planned new generation 16.07.2019, 1,3 million smolt), Rensøya N present generation 2017G (planned new generation 16.09.2018, 0,8 million smolt) and Stokkasjøen present generation 2017G (planned new generation 01.01.2019, 1,35 million smolt).	Compliant		
		b. Compile list of and comply with all discharge laws or regulations.	As described in above permits. MOM-B report by AquaKompetanse September 2016, status 1. ASC survey by AquaKompetanse November 2017, 279-11-17C RENGA			
		c. Maintain records of monitoring and compliance with discharge laws and regulations as required.	Biomass reported to government via Altinn end of each month, e.g. report for December 2017, reported per 31.12.2017 biomass 1038 tons (10 cages). Environmental reports and surveys reported to Altinn, seen MOM-B at Directorate of Fisheries website.			
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 VI for requirements on transparency for 2.1.1, 2.1.2 and 2.1.3.					
Instruction to Clients and CABs on Criterion 2.1 - Modification 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 changes in the total number of samples. Where modifications are sought, farms shall provide a full justification to the CAB for review. Requests for modification shall be supported by mapping of differences in sampling locations. In any event, the sampling locations must at a minimum include samples from the cage edge and samples taken from inside and outside of a defined AZE. CABs shall evaluate client requests to modify benthic methodology based on whether there is a risk that such changes would jeopardize the intent and rigor of the ASC Salmon Standard. If the CAB determines that proposed modifications are low risk, the CAB shall ensure that details of the modified benthic sampling methodology are fully described and justified in the audit report.						
2.1.1	**Indicator:** 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 **Requirement:** Redox potential > 0 mV or Sulphide ≤ 1,500 µMol/L **Applicability:** All farms except as noted in [1]	Note: 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.				
		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.	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA , Olex map with 6 sampling points, adapted to site specific bathymetric, production, current, etc. (reference stations: ASC ref 1 and ASC ref 2, stations outside AZE: ASC 3 and ASC 4, stations inside AZE: ASC 1 and ASC 2).	Minor	MOM-C not performed at peak biomass (at >75% peak biomass) last production cycle. Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions	Min. 29
		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.	Reference stations: ASC ref 1 and ASC ref 2. Stations outside AZE: ASC 3 and ASC 4. Stations inside AZE: ASC 1 and ASC 2.			
		c. Inform the CAB whether the farm chose option #1 or option #2 to demonstrate compliance with the requirements of the Standard.	Option 1			
		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).	MOM-C not performed at peak biomass (at >75% peak biomass) last production cycle.			

		e. For option #1, measure and record redox potential (mV) in sediment samples using an appropriate, nationally or internationally recognized testing method.	Stations outside AZE: ASC 3: 29 ASC 4: 126,5		Accepted	
		f. For option #2, measure and record sulphide concentration (µM) using an appropriate, nationally or internationally recognized testing method.	Redox potential measured according to national regulation (NS 9410:2016)			
		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.	Submitted to ASC 09.02.2018			
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 SEPA AUTODEPOMOD and verified through monitoring, the site-specific AZE shall be used.					
2.1.2	**Indicator:** Faunal index score indicating good [4] to high ecological quality in sediment outside the AZE, following the sampling methodology outlined in Appendix I-1 **Requirement:** AZTI Marine Biotic Index (AMBI [5]) score ≤ 3.3, or Shannon-Wiener Index score > 3, or Benthic Quality Index (BQI) score ≥ 15, or Infaunal Trophic Index (ITI) score ≥ 25 **Applicability:** All farms except as noted in [1]	Notes: - Under Indicator 2.1.2, farms can choose one of four measurements to show compliance with the faunal index Requirement: AMBI (Option #1); Shannon-Wiener Index (Option #2); BQI (Option #3); or ITI (Option #4). Farms do not have to demonstrate that they meet all four threshold values. - If a farm is exempt due to hard bottom benthos (see 2.1.1b), then 2.1.2 does not apply and this shall be noted in the audit report.				
		a. Prepare a map showing the AZE (30 m or site specific) and sediment collections stations (see 2.1.1).	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA , Olex map with 6 sampling points, adapted to site specific bathymetric, production, current, etc. (reference stations: ASC ref 1 and ASC ref 2, stations outside AZE: ASC 3 and ASC 4, stations inside AZE: ASC 1 and ASC 2).	Minor	MOM-C not performed at peak biomass (at >75% peak biomass) last production cycle. Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted	Max. 3,07
		b. Inform the CAB whether the farm chose option #1, #2, #3, or #4 to demonstrate compliance with the requirement.	#1 AZTI Marine Biotic Index used			
		c. Collect sediment samples in accordance with Appendix I-1 (see 2.1.1).	MOM-C not performed at peak biomass (at >75% peak biomass) last production cycle.			
		d. For option #1, measure, calculate and record AZTI Marine Biotic Index [5] score of sediment samples using the required method.	Stations outside AZE: ASC 3: 2,92 ASC 4: 3,07			
		e. For option #2, measure, calculate and record Shannon-Wiener Index score of sediment samples using the required method.	#1 AZTI Marine Biotic Index used			
		f. For option #3, measure, calculate and record Benthic Quality Index (BQI) score of sediment samples using the required method.	#1 AZTI Marine Biotic Index used			
		g. For option #4, measure, calculate and record Infaunal Trophic Index (ITI) score of sediment samples using the required method.	#1 AZTI Marine Biotic Index used			
		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.	Field work, sorting, specie identification and calculation according to NS-EN ISO 16665:2013/NS-EN ISI 5667:2004. Evaluation benthos according to NS 9410:2016 and guidance 02:2013. Sediment analyzed using ID-Gene sedimentary DNA bioassessment test.			
		i. Submit faunal index scores to ASC (Appendix VI) at least once for each production cycle.	Submitted to ASC 09.02.2018			
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] http://www.azti.es/en/ambi-azti-marine-biotic-index.html.					
2.1.3	**Indicator:** Number of macrofaunal taxa in the sediment within the AZE, following the sampling methodology outlined in Appendix I-1 **Requirement:** ≥ 2 highly abundant [6] taxa that are not pollution indicator species **Applicability:** All farms except as noted in [1]	a. Document appropriate sediment sample collection as for 2.1.1a and 2.1.1c, or exemption as per 2.1.1b.	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA , Olex map with 6 sampling points, adapted to site specific bathymetric, production, current, etc. (reference stations: ASC ref 1 and ASC ref 2, stations outside AZE: ASC 3 and ASC 4, stations inside AZE: ASC 1 and ASC 2).	Compliant		≥2
		b. For sediment samples taken within the AZE, determine abundance and taxonomic composition of macrofauna using an appropriate testing method.	Field work, sorting, specie identification and calculation according to NS-EN ISO 16665:2013/NS-EN ISI 5667:2004. Evaluation benthos according to NS 9410:2016 and guidance 02:2013. Sediment analyzed using ID-Gene sedimentary DNA bioassessment test.			
		c. Identify all highly abundant taxa [6] and specify which ones (if any) are pollution indicator species.	Stations inside AZE: ASC 1: ≥2 ASC 2: ≥2			
		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.	Field work, sorting, specie identification and calculation according to NS-EN ISO 16665:2013/NS-EN ISI 5667:2004. Evaluation benthos according to NS 9410:2016 and guidance 02:2013. Sediment analyzed using ID-Gene sedimentary DNA bioassessment test.			
		e. Submit counts of macrofaunal taxa to ASC (Appendix VI) at least once for each production cycle.	Submitted to ASC 09.02.2018			
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	**Indicator:** Definition of a site-specific AZE based on a robust and credible [7] modeling system **Requirement:** Yes **Applicability:** All farms except as noted in [1]	a. Undertake an analysis to determine the site-specific AZE and depositional pattern.	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA , Olex map with 6 sampling points, adapted to site specific bathymetric, production, current, etc. (reference stations: ASC ref 1 and ASC ref 2, stations outside AZE: ASC 3 and ASC 4, stations inside AZE: ASC 1 and ASC 2).	Compliant		
		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].	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA , Olex map with 6 sampling points, adapted to site specific bathymetric, production, current, etc. (reference stations: ASC ref 1 and ASC ref 2, stations outside AZE: ASC 3 and ASC 4, stations inside AZE: ASC 1 and ASC 2).			
		c. Maintain records to show that modeling results for the site-specific AZE have been verified with > 6 months of monitoring data.	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA , Olex map with 6 sampling points, adapted to site specific bathymetric, production, current, etc. (reference stations: ASC ref 1 and ASC ref 2, stations outside AZE: ASC 3 and ASC 4, stations inside AZE: ASC 1 and ASC 2).			
Footnote	[7] Robust and credible: The SEPA AUTODEPOMOD 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.					
Criterion 2.2 Water quality in and near the site of operation [8]						
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
Footnote	[8] See Appendix VI for transparency requirements for 2.2.1, 2.2.2, 2.2.3 and 2.2.5.					

2.2.1	**Indicator**: Weekly average percent saturation [9] of dissolved oxygen (DO) [10] on farm, calculated following methodology in Appendix I-4 **Requirement:** ≥ 70% [11] **Applicability:** All farms except as noted in [11]	**Instruction to Clients for Indicator 2.2.1 - Monitoring Average Weekly Percent Saturation of Dissolved Oxygen** 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: - measurements may be taken with a handheld oxygen meter or equivalent chemical method; - equipment is calibrated according to manufacturer's recommendations; - measurements are taken at least twice daily: once in the morning (6 -9 am) and once in the afternoon (3-6 pm) as appropriate for the location and season; - salinity and temperature must also be measured when DO is sampled; - sampling should be done at 5 meters depth in water conditions that would be experienced by fish (e.g. at the downstream edge of a net pen array): - each week, all DO measurements are used in the calculation of a weekly average percent saturation. If monitoring deviates from prescribed sampling methodology, the farm shall provide the auditor with a written justification (e.g. when samples are missed due to bad weather). In limited and well-justified situations, farms may request that the CAB approve reduction of DO monitoring frequency to one sample per day. Exception [see footnote 12] If a farm does not meet the minimum 70 percent weekly average saturation requirement, the farm must demonstrate the consistency of percent saturation with a reference site. The reference site shall be at least 500 meters from the edge of the net pen array, in a location that is understood to follow similar patterns in upwelling to the farm site and is not influenced by nutrient inputs from anthropogenic causes including aquaculture, agricultural runoff or nutrient releases from coastal communities. For any such exceptions, the auditor shall fully document in the audit report how the farm has demonstrated consistency with the reference site. Note 1: *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.				
		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.	Nortek "Realfish" continuos logging of oxygen and temperature at 2 sampling stations (3 and 6 meters depth inside cage). Seen record for the period week 30 in 2017 to 5 in 2018. Minimum 80,7% oxygen and minimum 7,16 mg oxygen per liter.	Minor	One week missing data for dissolved oxygen, not seen written justification. Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted	Min. 80,7%
		b. Provide a written justification for any missed samples or deviations in sampling time.	One week missing data for dissolved oxygen, not seen written justification.			
		c. Calculate weekly average percent saturation based on data.	Nortek "Realfish" continuos logging of oxygen and temperature at 2 sampling stations (3 meters depth inside and outside cage). Seen record for the period week 30 in 2017 to 5 in 2018. Minimum 80,7% oxygen and minimum 7,16 mg oxygen per liter.			
		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).	No measurements below 70% dissolved oxygen has been registered/observed. No measurements below 2 mg/l dissolved oxygen has been registered/observed.			
		e. Arrange for auditor to witness DO monitoring and calibration while on site.	Seen Nortek "Realfish" system at site. Calibratration and service per year/generation at supplier.			
		f. Submit results from monitoring of average weekly DO as per Appendix VI to ASC at least once per year.	Submitted to ASC 09.02.2018			
Footnote	[9] 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	[10] Averaged weekly from two daily measurements (proposed at 6 am and 3 pm).					
Footnote	[11] 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	**Indicator**: Maximum percentage of weekly samples from 2.2.1 that fall under 2 mg/L DO **Requirement:** 5% **Applicability:** All	a. Calculate the percentage of on-farm samples taken for 2.2.1a that fall under 2 mg/L DO.	All above limits.	Compliant		>2mg/l
		b. Submit results from 2.2.2a as per Appendix VI to ASC at least once per year.	Submitted to ASC 09.02.2018			
2.2.3	**Indicator**: For jurisdictions that have national or regional coastal water quality targets [12], demonstration through third-party analysis that the farm is in an area recently [13] classified as having "good" or "very good" water quality [14] **Requirement:** Yes [15] **Applicability:** All farms except as noted in [15]	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	Ecologic state for coastal water in Rødøy community at website vann-nett (run by The Norwegian Water Resources and Energy Directorate) shows 25% very good and 75% good.	Compliant		
		b. Compile a summary of relevant national or regional water quality targets and classifications, identifying the third-party responsible for the analysis and classification.	Ecologic state for coastal water in Rødøy community at website vann-nett (run by The Norwegian Water Resources and Energy Directorate) shows 25% very good and 75% good.			
		c. Identify the most recent classification of water quality for the area in which the farm operates.	Ecologic state for coastal water in Rødøy community at website vann-nett (run by The Norwegian Water Resources and Energy Directorate) shows 25% very good and 75% good.			
Footnote	[12] Related to nutrients (e.g., N, P, chlorophyll *a*).					
Footnote	[13] Within the two years prior to the audit.					
Footnote	[14] 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	[15] Closed production systems that can demonstrate the collection and responsible disposal of > 75% of solid nutrients as well as > 50% of dissolved nutrients (through biofiltration, settling and/or other technologies) are exempt from standards 2.2.3 and 2.2.4.					
2.2.4	**Indicator**: For jurisdictions without national or regional coastal water quality targets, evidence of monitoring of nitrogen and phosphorous [16] levels on farm and at a reference site, following methodology in Appendix I-5 **Requirement:** Consistency with reference site **Applicability:** All farms except as noted in [16]	a. Develop, implement, and document a weekly monitoring plan for N, NH4, NO3, total P, and ortho-P in compliance with Appendix I-5. For first audits, farm records must cover ≥ 6 months.	Ecologic state for coastal water in Rødøy community at website vann-nett (run by The Norwegian Water Resources and Energy Directorate) shows 25% very good and 75% good.	Compliant		
		b. Calibrate all equipment according to the manufacturer's recommendations.	Ecologic state for coastal water in Rødøy community at website vann-nett (run by The Norwegian Water Resources and Energy Directorate) shows 25% very good and 75% good.			
		c. Submit data on N and P to ASC as per Appendix VI at least once per year.	Ecologic state for coastal water in Rødøy community at website vann-nett (run by The Norwegian Water Resources and Energy Directorate) shows 25% very good and 75% good.			
Footnote	[16] 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	**Indicator**: Demonstration of calculation of biochemical oxygen demand (BOD [17]) of the farm on a production cycle basis **Requirement:** Yes **Applicability:** All	**Instruction to Clients for Indicator 2.2.5 - Calculating Biochemical Oxygen Demand** 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. BOD = ((total N in feed – total N in fish)*4.57) + ((total C in feed – total C in fish)*2.67). • A farm may deduct N or C that is captured, filtered or absorbed through approaches such as IMTA or through direct collection of nutrient wasted. In this equation, "fish" refers to harvested fish. In this case, farm must submit breakdown of N & C captured/filtered/absorbed to ASC along with method used to estimate nutrient reduction. • Reference for calculation methodology: Boyd C. 2009. Estimating mechanical aeration requirement in shrimp ponds from the oxygen demand of feed. In: Proceedings of the World Aquaculture Society Meeting; Sept 25-29, 2009; VeraCruz, Mexico. And: Global Aquaculture Performance Index BOD calculation methodology available at http://web.uvic.ca/~gapi/explore-gapi/bod.html. Note 1: Calculation requires a full production cycle of data and is required beginning with the production cycle first undergoing certification. If it is the first audit for the farm, the client is required to demonstrate to the CAB that data is being collected and an understanding of the calculations. Note 2: Farms may seek an exemption to Indicator 2.2.5 if: the farm collects BOD samples at least once every two weeks, samples are independently analyzed by an accredited laboratory, and the farm can show that BOD monitoring results do not deviate significantly from calculated annual BOD load.				
		a. Collect data throughout the course of the production cycle and calculate BOD according to formula in the instruction box.	Last full cycle (2015G): BOD (mTO2) 4632. Full production cycle will be provided when fish is harvested, will be followed up at SA1.	Compliant		4632
		b. Submit calculated BOD as per Appendix VI to ASC for each production cycle.	Submitted to ASC 09.02.2018			
Footnote	[17] BOD calculated as: ((total N in feed – total N in fish)*4.57) + ((total C in feed – total C in fish)*2.67). A farm may deduct N or C that is captured, filtered or absorbed through approaches such as IMTA or through direct collection of nutrient wasted. In this equation, "fish" refers to harvested fish. Reference for calculation methodology: Boyd C. 2009. Estimating mechanical aeration requirement in shrimp ponds from the oxygen demand of feed. In: Proceedings of the World Aquaculture Society Meeting; Sept 25-29, 2009; VeraCruz, Mexico. And: Global Aquaculture Performance Index BOD calculation methodology available at http://web.uvic.ca/~gapi/explore-gapi/bod.html.					

2.2.6	**Indicator**: Appropriate controls are in place that maintain good culture and hygienic conditions on the farm which extends to all chemicals, including veterinary drugs, thereby ensuring that adverse impacts on environmental quality are minimized. **Requirement:** Yes **Applicability:** All	a. Document control systems in good culture and hygiene that includes all appropriate elements.	Approved veterinary drugs according to VHP. Substitution of chemicals to reduce use of harmful chemicals. Not seen records of weekly cleaning of boats as stated in "Renholdsplan" 08.03.10. Cleaning log, e.g. January 2018, and cleaning plan "renholdsplan 08.03.10 Barge is missing in "Renholdsplan" 08.03.10.	Minor	Not seen records of weekly cleaning of boats as stated in "Renholdsplan" 08.03.10. Cleaning log, e.g. January 2018, and cleaning plan "Renholdsplan" 08.03.10. Barge is missing in "Renholdsplan" 08.03.10. Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted	
		b. Apply the systems ensuring that staff are aware, qualified and trained to properly implement them.	Verified during audit			
		-	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA , Olex map with 6 sampling points, adapted to site specific bathymetric, production, current, etc. (reference stations: ASC ref 1 and ASC ref 2, stations outside AZE: ASC 3 and ASC 4, stations inside AZE: ASC 1 and ASC 2).			
Criterion 2.3 Nutrient release from production						
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
2.3.1	**Indicator**: Percentage of fines [18] in the feed at point of entry to the farm [20] (calculated following methodology in Appendix I-2) **Requirement:** < 1% by weight of the feed **Applicability:** All farms except as noted in [19]	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.				
		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.	Procedure "Mottakskontroll av for og foravvikshåndtering" 21.12.2017, describes quarterly testing, sampling method, feed reception, etc. Instruction "Instruks for kontroll av for og foringsanlegg for støv og knus" 03.01.2018 describes samples size, sieve opening size, etc.	Compliant	Not seen testing on farm of feed (percentage of fines). Seen test results from supplier Skretting with all samples below 1% fines in feed. Jan Petter Kosmo 13.03.2018: Closed	
		b. If using a sieving machine, calibrate equipment according to manufacturer's recommendations.	Appropriate testing technology as per ASC			
		c. Conduct test according to detailed methodology in Appendix I-2 and record results for the pooled sample for each quarter. For first audits, farms must have test results from the last 3 months.	Not seen testing on farm of feed (percentage of fines). Seen test results from supplier Skretting with all samples below 1% fines in feed.			
Footnote	[18] Fines: Dust and fragments in the feed. Particles that separate from feed with a diameter of 5 mm or less when sieved through a 1 mm sieve, or particles that separate from feed with a diameter greater than 5 mm when sieved through a 2.36 mm sieve. To be measured at farm gate (e.g., from feed bags after they are delivered to farm).					
Footnote	[19] 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 for 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.					
Criterion 2.4 Interaction with critical or sensitive habitats and species						
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
2.4.1	**Indicator**: 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 **Requirement:** Yes **Applicability:** All	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.				
		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.	Report "Lokal miljøvurdering" in 2017 assesses potential impacts by possible treatments and medicines. Risk assessments in Landax covers escape, feed waste, chemicals, light, noise, mammals, birds, waste, copper, sedation, exhaust, raw material feed, predators, etc.	Compliant		
		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.	Risk assessments evaluated and updated regularly. Separate plans for reducing risk.			
		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.	Report "Lokal miljøvurdering" in 2017 assesses potential impacts by possible treatments and medicines. Risk assessments in Landax covers escape, feed waste, chemicals, light, noise, mammals, birds, waste, copper, sedation, exhaust, raw material feed, predators, etc.			
2.4.2	**Indicator**: Allowance for the farm to be sited in a protected area [20] or High Conservation Value Areas [21] (HCVAs) **Requirement:** None [22] **Applicability:** All farms except as noted in [22]	**Instruction to Clients for Indicator 2.4.2 - Exceptions to Requirements that Farms are not sited within Protected Areas or HCVAs** The following exceptions shall be made for Indicator 2.4.2: Exception #1: 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). Exception #2: For HCVAs if the farm can demonstrate that its environmental impacts are compatible with the conservation objectives of the HCVA designation. The burden of proof would be placed on the farm to demonstrate that it is not negatively impacting the core reason an area has been identified as a HCVA. Exception #3: For farms located in a protected area if it was designated as such after the farm was already in operation and provided the farm can demonstrate that its environmental impacts are compatible with the conservation objectives of the protected area and it is in compliance with any relevant conditions or regulations placed on the farm as a result of the formation/designation of the protected area. The burden of proof would be placed on the farm to demonstrate that it is not negatively impacting the core reason an area has been protected. **Definitions** 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." High Conservation Value Areas (HCVA): Natural habitats where conservation values are considered to be of outstanding significance or critical importance. HCVA are designated through a multi-stakeholder approach that provides a systematic basis for identifying critical conservation values—both social and environmental—and for planning ecosystem management in order to ensure that these high conservation values are maintained or enhanced				
		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).	Not within conservation area, seen map from Norwegian Environment Agency with protected areas.	N/A	Not within HCVA	
		b. If the farm is not 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.	Statement site not in HCVA, 29.11.2017 signed Odd Strøm - Nova Sea AS.			
		c. If the farm is 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.	Not within HCVA			
		d. If the farm is sited in a protected area or HCVA and the exceptions provided for Indicator 2.4.2 do not apply, then the farm does not comply with the requirement and is ineligible for ASC certification.	Not within HCVA			
Footnote	[20] 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), Guidelines for Applying Protected Area Management Categories, Gland, Switzerland: IUCN. x + 86pp.					
Footnote	[21] High Conservation Value Areas (HCVA): Natural habitats where conservation values are considered to be of outstanding significance or critical importance. HCVA are designated through a multi-stakeholder approach that provides a systematic basis for identifying critical conservation values—both social and environmental—and for planning ecosystem management in order to ensure that these high conservation values are maintained or enhanced (http://www.hcvnetwork.org/).					
Footnote	[22] The following exceptions shall be made for Standard 2.4.2: • 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). • For HCVAs if the farm can demonstrate that its environmental impacts are compatible with the conservation objectives of the HCVA designation. The burden of proof would be placed on the farm to demonstrate that it is not negatively impacting the core reason an area has been identified as a HCVA. • For farms located in a protected area if it was designated as such after the farm was already in operation and provided the farm can demonstrate that its environmental impacts are compatible with the conservation objectives of the protected area and it is in compliance with any relevant conditions or regulations placed on the farm as a result of the formation/designation of the protected area. The burden of proof would be placed on the farm to demonstrate that it is not negatively impacting the core reason an area has been protected.					
Criterion 2.5 Interaction with wildlife, including predators [23]						
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
Footnote	[23] See Appendix VI for transparency requirements for 2.5.2, 2.5.5 and 2.5.6.					
	Indicator: Number of days in the production cycle when acoustic deterrent devices (ADDs) or acoustic	a. Compile documentary evidence to show that no ADDs or AHDs have been used by the	Statement Bukkøya, Kalvhylla, Renga, Stokkasjøen and Rensøya N does not use ADD/AHD			

2.5.1	harassment devices (AHDs) were used **Requirement:** 0 **Applicability:** All	farm.	and will not use them in the future, 30.01.2018 signed Odd Strøm - Nova Sea AS.	Compliant		0
		-	No ADD/AHD used.			
2.5.2	**Indicator**: Number of mortalities [25] of endangered or red-listed [26] marine mammals or birds on the farm **Requirement:** 0 (zero) **Applicability:** All	a. Prepare a list of all predator control devices and their locations.	Procedure "Fellingstillatelse, avliving, dødsfall av predatorer og/eller rødlistearter og rapportering" 30.01.2018 includes welfare, written approval from production manager/daily manger, reporting, recording, etc. List "Oversikt over aktuelle rødlistearter" 09.11.2015 with redlisted birds, mammals, molluscs, etc. List "EN og CR fugler og sjøpattedyr for Nordland" with endangered and critical birds and mammals in the area 18.12.2017. FishTalk site diary includes predator records.	Compliant		0
		b. Maintain a record of all predator incidents.	Landax non-conformance system from 01.01.2016 - 30.01.2018 gives 0 incidents with search for "felling" eller "rødlisteart". Sustainability report "Bærekraftrapport" for 2016 states 0 deaths of redlisted species from 2014 to 2016 and 0 deaths from approved killings. Preliminary sustainability report for 2017 states 0 deaths of redlisted species from 2014 to 2016 and 0 deaths from approved killings.			
		c. Maintain a record of all mortalities of marine mammals and birds on the farm identifying the species, date, and apparent cause of death.	Landax non-conformance system from 01.01.2016 - 30.01.2018 gives 0 incidents with search for "felling" eller "rødlisteart". Sustainability report "Bærekraftrapport" for 2016 states 0 deaths of redlisted species from 2014 to 2016 and 0 deaths from approved killings. Preliminary sustainability report for 2017 states 0 deaths of redlisted species from 2014 to 2016 and 0 deaths from approved killings.			
		d. Maintain an up-to-date list of endangered or red-listed marine mammals and birds in the area (see 2.4.1)	List "Oversikt over aktuelle rødlistearter" 09.11.2015 with redlisted birds, mammals, molluscs, etc. List "EN og CR fugler og sjøpattedyr for Nordland" with endangered and critical birds and mammals in the area 18.12.2017.			
		-	No mortalities of redlisted or endangered marine mammals and birds in the area registered on site.			
Footnote	[25] Mortalities: Includes animals intentionally killed through lethal action as well as accidental deaths through entanglement or other means.					
Footnote	[26] Species listed as endangered or critically endangered by the IUCN or on a national endangered species list.					
2.5.3	**Indicator**: Evidence that the following steps were taken prior to lethal action [27] 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 **Requirement:** Yes [28] **Applicability:** All except cases where human safety is endangered as noted in [28]	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.	No lethal actions taken at farm. Seen FishTalk log with 0 lethal incidents from 2016 til present day.	N/A	No lethal actions taken 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.	No lethal actions taken at farm. Seen FishTalk log with 0 lethal incidents from 2016 til present day.			
		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 [28].	No lethal actions taken at farm. Seen FishTalk log with 0 lethal incidents from 2016 til present day.			
Footnote	[27] Lethal action: Action taken to deliberately kill an animal, including marine mammals and birds.					
Footnote	[28] 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.					
	Instruction to Clients and CABs on Indicators 2.5.4, 2.5.5, and 2.5.6 - Clarification about the ASC Definition of "Lethal Incident" 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 29]. For the purpose of assisting farms and auditors with understanding how to evaluate compliance with Indicators 2.5.4, 2.5.5, and 2.5.6, ASC has clarified this definition further: Total number of lethal Incidents = sum of all non-salmonid deaths arising from all lethal actions taken by the farm during a given time period There should be a 1:1 relationship between the number of animal deaths and the number of lethal incidents reported by the farm. For example, if a farm has taken one (1) lethal action in past last two years and that single lethal action resulted in killing three (3) birds, it is considered three (3) lethal incidents within a two year period. The term "non-salmonid" was intended to cover any predatory animals which are likely to try to feed upon farmed salmon. In practice these animals will usually be seals or birds.					
2.5.4	**Indicator**: Evidence that information about any lethal incidents [30] on the farm has been made easily publicly available [29] **Requirement:** Yes **Applicability:** All	a. For all lethal actions (see 2.5.3), keep records showing that the farm made the information available within 30 days of occurrence.	Company website (www.novasea.no) states 0 lethal incidents in 2017.	Compliant		
		a. For all lethal actions (see 2.5.3), keep records showing that the farm made the information available within 30 days of occurrence.	Company website (www.novasea.no) states 0 lethal incidents in 2017.			
		b. Ensure that information about all lethal actions listed in 2.5.4a are made easily publicly available (e.g. on a website).	Company website (www.novasea.no) states 0 lethal incidents in 2017.			
Footnote	[29] 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.					
2.5.5	**Indicator**: Maximum number of lethal incidents [30] on the farm over the prior two years **Requirement:** < 9 lethal incidents [31], with no more than two of the incidents being marine mammals **Applicability:** All	a. Maintain log of lethal incidents (see 2.5.3a) for a minimum of two years. For first audit, > 6 months of data are required.	Seen FishTalk log with 0 lethal incidents from 2016 til present day.	Compliant		0
		b. Calculate the total number of lethal incidents and the number of incidents involving marine mammals during the previous two year period.	Seen FishTalk log with 0 lethal incidents from 2016 til present day.			
		c. Send ASC the farm's data for all lethal incidents [30] 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).	Submitted to ASC 09.02.2018			
Footnote	[30] Lethal incident: Includes all lethal actions as well as entanglements or other accidental mortalities of non-salmonids.					
Footnote	[31] 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.					
2.5.6	**Indicator**: 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 **Requirement:** Yes **Applicability:** All	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.	Risk assessments in Landax quality system, e.g. ID 283: predators in roof net or jumping net, ID 284: birds/fish in surveillance nets, ID 296: killing of aggressive mammals, ID 190: noise from predator devices, etc.	Compliant		
		b. Provide documentary evidence that the farm implements those steps identified in 2.5.6a to reduce the risk of future lethal incidents.	Procedure "Fellingstillatelse, avliving, dødsfall av predatorer og/eller rødlistearter og rapportering" 30.01.2018 includes welfare, written approval from production manager/daily manger, reporting, recording, etc.			
	PRINCIPLE 3: PROTECT THE HEALTH AND GENETIC INTEGRITY OF WILD POPULATIONS					
	Criterion 3.1 Introduced or amplified parasites and pathogens [34, 35]					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
Footnote	[32] 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	[33] See Appendix VI for transparency requirements for 3.1.1, 3.1.3, 3.1.4, 3.1.6 and 3.1.7.					
	Instruction to Clients and CABs on Exemptions to Criterion 3.1 According to footnote [32], 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 if it can be shown that either of the following holds: 1) the farm does not release any water to the natural environment; or 2) any effluent released by the farm to the natural environment has been effectively treated to kill pathogens (e.g. UV and/or chemical treatment of water with testing demonstrating efficacy). Auditors shall fully document the rationale for any such exemptions in the audit report.					

3.1.1	**Indicator**: 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. **Requirement:** Yes **Applicability:** All except farms that release no water as noted in [32]	a. Keep record of farm's participation in an ABM scheme.	ABM agreement "Samarbeide subregion Helgeland" for the area from Nord-Trøndelag to Meløy in Nordland, includes lice and treatments. Cooperation is managed by HaVet and cooperation between all farmers in the region. Minutes of meeting from the ABM group 02.11.2017 includes revision of agreement, status in area, knowledge sharing, cleaner fish, biosecurity, treatments, logistics, cooperation, fallowing, etc. Seen example of weekly report to the ABM for week 44-2017 with lice per site, lice treatments per site and empty sites. Sensitive period defined in "Forskrift om endring i forskrift om bekjempelse av lakselus", states less than 0,2 adult female lice per fish from Monday week 21 to Sunday week 26. All farmers must have an approved operation plan "Driftsplan". Operation plan ("Driftsplan") for 2018 approved by Directorate of Fisheries 10.01.2018 for sites in Nova Sea AS.	Compliant		
		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.	ABM agreement "Samarbeide subregion Helgeland" for the area from Nord-Trøndelag to Meløy in Nordland, includes lice and treatments. Cooperation is managed by HaVet and cooperation between all farmers in the region. Sensitive period defined in "Forskrift om endring i forskrift om bekjempelse av lakselus", states less than 0,2 adult female lice per fish from Monday week 21 to Sunday week 26. All farmers must have an approved operation plan "Driftsplan". Operation plan ("Driftsplan") for 2018 approved by Directorate of Fisheries 10.01.2018 for sites in Nova Sea AS, includes Kalvhylla present generation 2017G (planned new generation 01.01.2019, 1,2 million smolt), Bukkøya present generation 2017G (planned new generation 15.07.2019, 1,0 million smolt), Renga present generation 2017G (planned new generation 16.07.2019, 1,3 million smolt), Rensøya N present generation 2017G (planned new generation 16.09.2018, 0,8 million smolt) and Stokkasjøen present generation 2017G (planned new generation 01.01.2019, 1,35 million smolt).			
		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.	ABM agreement "Samarbeide subregion Helgeland" for the area from Nord-Trøndelag to Meløy in Nordland, includes lice and treatments. Cooperation is managed by HaVet and cooperation between all farmers in the region. Sensitive period defined in "Forskrift om endring i forskrift om bekjempelse av lakselus", states less than 0,2 adult female lice per fish from Monday week 21 to Sunday week 26. All farmers must have an approved operation plan "Driftsplan". Operation plan ("Driftsplan") for 2018 approved by Directorate of Fisheries 10.01.2018 for sites in Nova Sea AS, includes Kalvhylla present generation 2017G (planned new generation 01.01.2019, 1,2 million smolt), Bukkøya present generation 2017G (planned new generation 15.07.2019, 1,0 million smolt), Renga present generation 2017G (planned new generation 16.07.2019, 1,3 million smolt), Rensøya N present generation 2017G (planned new generation 16.09.2018, 0,8 million smolt) and Stokkasjøen present generation 2017G (planned new generation 01.01.2019, 1,35 million smolt).			
		d. Submit dates of fallowing period(s) as per Appendix VI to ASC at least once per year.	Submitted to ASC 09.02.2018			
3.1.2	**Indicator**: A demonstrated commitment [34] to collaborate with NGOs, academics and governments on areas of mutually agreed research to measure possible impacts on wild stocks **Requirement:** Yes **Applicability:** All except farms that release no water as noted in [32]	Note: Indicator 3.1.2 requires that farms demonstrate a commitment to collaborate with NGOs, academics and governments on areas of mutually agreed research to measure possible impacts on wild stocks. If the farm does not receive any requests to collaborate on such research projects, the farm may demonstrate compliance by showing evidence of commitment through other proactive means such as published policy statements or directed outreach to relevant organizations.				
		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.	Project "Elveovervåking Helgeland" regarding status for anadromous fish stocks in an assumed farming influenced area. Seen project description with participants from Nova Sea, Ferskvannsbiologen and Skandinavisk naturovervåking, signed by Nova Sea, Lovundlaks, Kvarøy fiskeoppdrett, 05.07.2017 regarding financial contribution. Project regarding spawning area in Beiarn, cooperates with GIFAS and Norsk Villaksforvaltning. Seen invoice 16.01.2018 regarding project support to Villaks fra Beiarelva SA. Participation in project "Marin overvåking Nordland" regarding the influence of farming, with e.g. Akvaplan NIVA, NCE Aquaculture, NINA and University in Nordland. Contributes with man-hours, samples, equipment and financial. Seen email from M.J. - NCE Aquaculture 04.10.2017 regarding the project. Participation in project group in project "Automatisk sorteringsanlegg for anadrom fisk" together with Mosjøen og Omegn Næringsutvikling. Seen letter from Nordland Fylkeskommune 21.08.2017 regarding financial support to pre-project. Supports master thesis (access to equipment and sites) at University in Nordland. Seen master thesis May 2013 naming O.A.F. and S.A. - Nova Sea AS as fatnes og Stian Amble. Stated on GIFAS website: GIFAS cooperates with Sundsfjord Smolt.	Compliant		
		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.	Some of the projects described in 3.1.2 a. includes non-financial support.			
		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.	Seen email correspondence 23.09.2015 regarding project with Novartis which was ended because of lice limit had to be followed. Not denied projects from NGOs, academics and governments.			
		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.	Project "Elveovervåking Helgeland" regarding status for anadromous fish stocks in an assumed farming influenced area. Seen project description with participants from Nova Sea, Ferskvannsbiologen and Skandinavisk naturovervåking, signed by Nova Sea, Lovundlaks, Kvarøy fiskeoppdrett, 05.07.2017 regarding financial contribution. Project regarding spawning area in Beiarn, cooperates with GIFAS and Norsk Villaksforvaltning. Seen invoice 16.01.2018 regarding project support to Villaks fra Beiarelva SA. Participation in project "Marin overvåking Nordland" regarding the influence of farming, with e.g. Akvaplan NIVA, NCE Aquaculture, NINA and University in Nordland. Contributes with man-hours, samples, equipment and financial. Seen email from M.J. - NCE Aquaculture 04.10.2017 regarding the project. Participation in project group in project "Automatisk sorteringsanlegg for anadrom fisk" together with Mosjøen og Omegn Næringsutvikling. Seen letter from Nordland Fylkeskommune 21.08.2017 regarding financial support to pre-project. Supports master thesis (access to equipment and sites) at University in Nordland. Seen master thesis May 2013 naming O.A.F. and S.A. - Nova Sea AS as fatnes og Stian Amble. Stated on GIFAS website: GIFAS cooperates with Sundsfjord Smolt.			
Footnote	[34] 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	**Indicator**: 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	a. Keep records to show that a maximum sea lice load has been set for: - the entire ABM; and - the individual farm.	Norwegian Food Safety Authority set limits and governmental treatment regime for site and ABM, while ABM/HaVet define actual operations and treatment regime. Sea lice load reported to AltInn weekly and made public on www.barentswatch.no. ABM/HaVet reports status in area monthly to participating companies.	Compliant		
		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).	Sea lice load reported to AltInn weekly and made public on www.barentswatch.no. ABM/HaVet reports status in area monthly to participating companies. No monitoring of wild salmon allowed, feedback from governmental monitoring of wild salmon incorporated.			

	Requirement: Yes **Applicability:** All except farms that release no water as noted in [32]	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.	NFSA set limits and governmental treatment regime for site and ABM. Recorded in FishTalk, and automatic reported to Altinn weekly. From week 30-2017 to 52-2017: max. 0,07 mature female lice per fish in week 36-2017. Sensitive period week 21 - 26 in 2017: NA From week 01-2018 to 03-2018: max. 0,01 mature female lice per fish in week 2-2018.			
		d. Submit the maximum sea lice load for the ABM to ASC as per Appendix VI at least once per year.	Submitted to ASC 09.02.2018			
3.1.4	**Indicator**: Frequent [35] on-farm testing for sea lice, with test results made easily publicly available [36] within seven days of testing **Requirement:** Yes **Applicability:** All except farms that release no water as noted in [32]	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).	Procedure "Kontroll og bekjempelse av lakselus" 27.10.2017 states counting of lice on 20 fish per cage in week 19 to 26 and , counting of lice on 10 fish per cage in week 27 to 18. Counting of lice according to regulation "Lakselusforskriften" and guidance to the regulation. Average from count in each cage reported to governments.	Compliant		
		b. Maintain records of results of on-farm testing for sea lice. If farm deviates from schedule due to weather [35] maintain documentation of event and rationale.	Sea lice load reported to AltInn weekly and made public on www.barentswatch.no. No missing data.			
		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.	Procedure "Kontroll og bekjempelse av lakselus" 27.10.2017 states counting of lice on 20 fish per cage in week 19 to 26 and , counting of lice on 10 fish per cage in week 27 to 18. Counting of lice according to regulation "Lakselusforskriften" and guidance to the regulation. Average from count in each cage reported to governments.			
		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.	Reported weekly to Altinn. Results available at www.barentswatch.no (also link to Barentswatch on company website).			
		e. Keep records of when and where test results were made public.	Sea lice load reported to AltInn weekly and made public on www.barentswatch.no.			
		f. Submit test results to ASC (Appendix VI) at least once per year.	Submitted to ASC 09.02.2018			
Footnote	[35] 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 degrees C). Within closed production systems, alternative methods for monitoring sea lice, such as video monitoring, may be used.					
Footnote	[36] Posting results on a public website is an example of "easily publicly available."					
3.1.5	**Indicator**: In areas with wild salmonids [37], evidence of data [38] 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 **Requirement:** Yes **Applicability:** All farms operating in areas with wild salmonids except farms that release no water as noted in [32]	**Instruction to Clients for Indicator 3.1.5 - Evidence for Wild Salmonid Health and Migration** In writing this indicator, the SAD Steering Committee concluded that relevant data sets on wild salmonid health and migration are publicly available in the vast majority of, if not all, jurisdictions with wild salmonids. The information is likely to come from government sources or from research institutions. Therefore farms are not responsible for conducting this research themselves. However farms must demonstrate that they are aware of this basic information in their region, as such information is needed to make management decisions related to minimizing potential impact on those wild stocks. This Indicator requires collection and understanding of general data for the major watersheds within approximately 50 km of the farm. A farm does not need to demonstrate that there is data for every small river or tributary or subpopulation. Information should relate to the wild fish stock level, which implies that the population is more or less isolated from other stocks of the same species and hence self-sustaining. A "conservation unit" under the Canadian Wild Salmon Policy is an example of an appropriate fish stock-level definition. However, it must be recognized that each jurisdiction may have slight differences in how a wild salmonid stock is defined in the region. 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 all, or nearly all, of salmon-growing areas in the northern hemisphere [39]. Potentially affected species in these areas are salmonids (i.e. including all trout species). Where a species is not natural to a region (e.g. Atlantic or Pacific Salmon in Chile) the areas are not considered as "areas with wild salmonids" even if salmon have escaped from farms and established themselves as a reproducing species in "the wild". 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. Such "evidence" would consist of, for example, peer review studies; publicly available government monitoring and reporting.				
		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.	Salmo salar naturally occurring in area.	Compliant		
		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.	Seen Report "Risikorapport Norsk fiskeoppdrett 2017" by IMR shows infestation of lice on wild fish, lice induced mortality on wild fish, etc. For area where company is present. Seen Map from "lakseregisteret" by Norwegian Environment Agency as basis for map with farm and an area of 80 km around.			
		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.	Sensitive period defined in regulation "Forskrift om endring i forskrift om bekjempelse av lakselus", states less than 0,2 adult female lice per fish from Monday week 21 to Sunday week 26.			
		-	Sufficient awareness demonstrated in interview.			
Footnote	[37] 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 all, or nearly all, of salmon-growing areas in the northern hemisphere.					
Footnote	[38] 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	**Indicator**: 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. **Requirement:** Yes **Applicability:** All farms operating in areas with wild salmonids except farms that release no water as noted in [32]	a. Inform the CAB if the farm operates in an area of wild salmonids. If not, then Indicator 3.1.6 does not apply.	Surveillance of sea lice level on wild salmonids administrated by IMR. Result published in report "Risikorapport for norsk fiskeoppdrett 2017" by IMR. Private interference with wild salmonids prohibited by law.	Compliant		
		b. Keep records to show the farm participates in monitoring of sea lice on wild salmonids.	Surveillance of sea lice level on wild salmonids administrated by IMR. Result published in report "Risikorapport for norsk fiskeoppdrett 2017" by IMR. Private interference with wild salmonids prohibited by law.			
		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.	Surveillance of sea lice level on wild salmonids administrated by IMR. Result published in report "Risikorapport for norsk fiskeoppdrett 2017" by IMR. Private interference with wild salmonids prohibited by law.			
		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.	Report public available at www.imr.no			
		e. Submit to ASC the results from monitoring of sea lice levels on wild salmonids as per Appendix VI.	Private interference with wild salmonids prohibited by law.			
3.1.7	**Indicator**: In areas of wild salmonids, maximum on-farm lice levels during sensitive periods for wild fish [39]. See detailed requirements in Appendix II, subsection 2. **Requirement:** 0.1 mature female lice per farmed fish **Applicability:** All farms operating in areas with wild salmonids except farms that release no water as noted in [32]	a. Inform the CAB if the farm operates in an area of wild salmonids. If not, then Indicator 3.1.7 does not apply.	Salmo salar naturally occurring in area.	Compliant	Maximum 0,28 adult female lice in week 26 in 2016. Jan Petter Kosmo 13.03.2018: Closed	Max. 0,28
		b. Establish the sensitive periods [39] of wild salmonids in the area where the farm operates. Sensitive periods for migrating salmonids is during juvenile outmigration and approximately one month before.	Sensitive period defined in "Forskrift om endring i forskrift om bekjempelse av lakselus", states less than 0,2 adult female lice per fish from Monday week 21 to Sunday week 26.			
		c. Maintain detailed records of monitoring on-farm lice levels (see 3.1.4) during sensitive periods as per Appendix II-2.	No fish in sensitive period (week 21 - 26) in 2017. Maximum 0,28 adult female lice in week 26 in 2016.			
		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).	Continuos wild fish sealice monitoring not possible (not allowed according to national legislation). Monitoring done by governmental research institutes. Direct feedback loop hence impossible to obtain.			
Footnote	[39] Sensitive periods for migrating salmonids is during juvenile outmigration and approximately one month before.					
Criterion 3.2 Introduction of non-native species						
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
		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-1A elaborates further on this definition: "The boundaries of an area should be defined, taking into account the zone in which key cumulative impacts on wild populations may occur, water movement and other relevant aspects of ecosystem structure and function." The intent is that the area relates to the spatial extent that is likely to be put at risk from the non-native salmon. Areas will only rarely coincide with the boundaries of countries.				

3.2.1	**Indicator**: 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 ASC Salmon standard **Requirement:** Yes [40] **Applicability:** All farms except as noted in [40]	a. Inform the CAB if the farm produces a non-native species. If not, then Indicator 3.2.1 does not apply.	Salmo salar native to region	N/A	Salmo salar native to region.	
		b. Provide documentary evidence that the non-native species was widely commercially produced in the area before June 13, 2012.	Salmo salar native to region			
		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.	Salmo salar native to region			
		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 [40]; and 3) barriers ensure there are no escapes of biological material [40] that might survive and subsequently reproduce (e.g. UV or other effective treatment of any effluent water exiting the system to the natural environment).	Salmo salar native to region			
		-	Salmo salar native to region			
Footnote	[40] 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.					
3.2.2	**Indicator**: If a non-native species is being produced, evidence of scientific research [41] 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 [42] **Requirement:** Yes **Applicability:** All [43]	**Instruction to Clients for Indicator 3.2.2 - Exceptions to Allow Production of Non-Native Species** Farms have had 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, 2017). 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 1993 (when the Convention on Biological Diversity (CBD) was ratified); the species is fully self-sustaining. Note: For the purposes of Indicator 3.2.2, "jurisdiction" is defined the same as "area" in 3.2.1.				
		a. Inform the ASC of the species in production (Appendix VI).	Submitted to ASC 09.02.2018	N/A	Salmo salar native to region	
		b. Inform the CAB if the farm produces a non-native species. If not, then Indicator 3.2.2 does not apply.	Salmo salar native to region			
		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).	Salmo salar native to region			
		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.	Salmo salar native to region			
		e. Submit evidence from 3.2.2c to ASC for review.	Salmo salar native to region			
Footnote	[41] 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	[42] If the review demonstrates there is increased risk, the ASC will consider prohibiting the certification 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. The ASC intends to bring this evidence into future revision of the standard and those results taken forward into the revision process.					
Footnote	[43] 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 1993 (when the Convention on Biological Diversity (CBD) was ratified); the species is fully self-sustaining.					
3.2.3	**Indicator**: Use of non-native species for sea lice control for on-farm management purposes **Requirement:** None **Applicability:** All	a. Inform the CAB if the farm uses fish (e.g. cleaner fish or wrasse) for the control of sea lice.	Cleaning fish: Rognkjeks Cyclopterus lumpus (Lumpfish, farmed) are native to region.	Compliant		
		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.	Health report 13.12.2017, Nordland rensefisk, by HaVet, for farmed lumpfish, routine inspection.			
		c. Collect documentary evidence or first hand accounts as evidence that the species used is not non-native to the region.	Cleaning fish: Rognkjeks Cyclopterus lumpus (Lumpfish, farmed) are native to region.			
		Criterion 3.3 Introduction of transgenic species				
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
3.3.1	**Indicator**: Use of transgenic [44] salmon by the farm **Requirement:** None **Applicability:** All	a. Prepare a declaration stating that the farm does not use transgenic salmon.	Nova Sea policy "Nova Sea konsernpolitikk for mattrygghet, dyrevelferd, kvalitet, miljø, energi og klima" approved by Odd Strøm 01.02.2018, states no use of genmodified fish or feed.	Compliant		
		b. Maintain records for the origin of all cultured stocks including the supplier name, address and contact person(s) for stock purchases.	Statement from Marine Harvest (Mowi), april 2017, no GM salmon. AquaGen statement, 20.12.2017, SAK - AquaGen, no GM.			
		c. Ensure purchase documents confirm that the culture stock is not transgenic.	Purchase only smolt of Mowi/AquaGen origin.			
Footnote	[44] Transgenic: Containing genes altered by insertion of DNA from an unrelated organism. Taking genes from one species and inserting them into another species to					
		Criterion 3.4 Escapes [47]				
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
Footnote	[45] See Appendix VI for transparency requirements for 3.4.1, 3.4.2 and 3.4.3.					
3.4.1	**Indicator**: Maximum number of escapees [46] in the most recent production cycle **Requirement:** 300 [47] **Applicability:** All farms except as noted in [47]	a. Maintain monitoring records of all incidences of confirmed or suspected escapes, specifying date, cause, and estimated number of escapees.	No escapes registered in the period 2007 - today. Documented by report from company and register at Directorate of Fisheries (www.fiskeridir.no).	Compliant		0
		b. Aggregate cumulative escapes in the most recent production cycle.	No escapes registered in the period 2007 - today. Documented by report from company and register at Directorate of Fisheries (www.fiskeridir.no).			
		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 [47]).	No escapes registered in the period 2007 - today. Documented by report from company and register at Directorate of Fisheries (www.fiskeridir.no).			
		d. If an escape episode occurs (i.e. an incident where > 300 fish escaped), the farm may request a rare exception to the Standard [47]. 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.	No escapes registered in the period 2007 - today.			
		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).	Submitted to ASC 09.02.2018			
Footnote	[46] 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	[47] 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	**Indicator**: Accuracy [48] of the counting technology or counting method used for calculating stocking and harvest numbers **Requirement:** ≥ 98% **Applicability:** All	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.	Counting performed at FW site, vaccination numbers used for stocking number at sea net cage. Final accurate numbers at harvest plant where individual fish is handled and registered. Statement from Vaki 98 - 100% accuracy (vaccine machines "Macro and Micro"), machines used by Helgeland Smolt and Sundsfjord Smolt. Statement from AquaScan 5500 98 - 100% accuracy, machines used by wellboat.	Compliant		98 - 100%
		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).	Vaccination numbers in FW used as accurate number stocked.			
		c. During audits, arrange for the auditor to witness calibration of counting machines (if used by the farm).	Counting not performed at site			
		-	Counting performed at FW site, vaccination numbers used for stocking number at sea net cage. Final accurate numbers at harvest plant where individual fish is handled and registered. Statement from Vaki 98 - 100% accuracy (vaccine machines "Macro and Micro"), machines used by Helgeland Smolt and Sundsfjord Smolt. Statement from AquaScan 5500 98 - 100% accuracy, machines used by wellboat.			
		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).	Submitted to ASC 09.02.2018			
Footnote	[48] Accuracy shall be determined by the spec sheet for counting machines and through common estimates of error for any hand-counts.					
3.4.3	**Indicator**: Estimated unexplained loss [49] of farmed salmon is made publicly available **Requirement:** Yes **Applicability:** All	**Instruction to Clients for Indicator 3.4.3 - Calculation of Estimated Unexplained Loss** The Estimated Unexplained Loss (EUL) of fish is calculated at the end of each production cycle as follows: EUL = (stocking count) - (harvest count) - (mortalities) - (recorded escapes) Units for input variables are number of fish (i.e. counts) per production cycle. Where possible, farms should use the pre-smolt vaccination count as the stocking count. This formula is adapted from footnote 59 of the ASC Salmon Standard.				
		a. Maintain detailed records for mortalities, stocking count, harvest count, and escapes (as per 3.4.1).	Specific site reports and records documented and available in production and recording system.	Compliant		-1,78 %
		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.	EUL 15G: -1,78% EUL 17G: not harvested yet.			
		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.	Seen on ASC dashboard at company website, www.novasea.no			
		d. Submit estimated unexplained loss to ASC as per Appendix VI for each production cycle.	Submitted to ASC 09.02.2018			
		-	EUL within normal range.			
Footnote	[49] 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	**Indicator**: 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 **Requirement:** Yes **Applicability:** All	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.	Procedure "Forebygge og avdekke rømming" 21.07.2016 regarding escape prevention and to discover escape. Procedure "Vaskebåt" 26.10.2016 regarding prevention of escape by inspection, reporting of deviation and documentation. Procedure "Kontrollrutiner mot rømming" 21.07.2016 regarding discover escape.	Compliant		
		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.	Procedure "Forebygge og avdekke rømming" 21.07.2016 regarding escape prevention and to discover escape. Procedure "Vaskebåt" 26.10.2016 regarding prevention of escape by inspection, reporting of deviation and documentation. Procedure "Kontrollrutiner mot rømming" 21.07.2016 regarding discover escape. Contingency plan " Beredskapsplan ved rømming" 05.09.2017 regarding escape limitation, information, actions, catch, reporting, measures and evaluation. Schedule and records of internal inspections of farm in "Havbruksloggen", also information of the equipment on the farm (e.g. strength test of nets and placing of them).			
		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.	Open system			
		d. Maintain records as specified in the plan.	"Havbruksloggen": Weekly check of farm performed e.g. 19.01.2018 signed CLO, 26.01.2018 signed OA, etc. "Havbruksloggen": Frame H, cage 3, contains net 9055. Service card for net 9055 by Egersund Net 20.04.2017, valid for 12 months, includes strength test. Visual check at unit 3: net 9055 and cage 5566. Cage 5566 from Akva group, produced February 2015, 20 years validity. Farm certificate ("Anleggssertifikat") APN-172 by Akvaplan Niva 24.04.2015, validity 5 years, for 14 cages and barge nr. 93384. Visual check at barge: AkvaCenter 450 nr. 93384. Contingency plan regarding escape dated 05.09.2017.			
		e. Train staff on escape prevention planning as per the farm's plan.	Certificate of apprenticeship for OA 14.11.2013 by Nordland Fylkeskommune. Certificate of apprenticeship for CLO 10.12.2015 by Nordland Fylkeskommune.			
		-	Verified during interview.			
PRINCIPLE 4: USE RESOURCES IN AN ENVIRONMENTALLY EFFICIENT AND RESPONSIBLE MANNER						
Criterion 4.1 Traceability of raw materials in feed						
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			

	Instruction to Clients for Indicators 4.1.1 through 4.4.2 - Sourcing of Responsibly Produced Salmon Feeds Farms must show that all feeds used by the farm are produced in compliance with the requirements of Indicators 4.1.1 through 4.4.4. 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 or a conformity assessment body against a recognized standard which substantially incorporate requirements for traceability. Acceptable certification schemes include GlobalGAP or other schemes that have been acknowledged by the ASC (see 4.1.1c below). Results from these audits shall demonstrate that feed producers have robust information systems and information handling processes to allow the feed producers to be able to bring forward accurate information about their production and supply chains. Declarations from the feed producer that are provided to the farm to demonstrate compliance with these indicators must be supported by the audits. Farms must also show that all of their feed producers are duly informed of the requirements of the ASC Salmon Standard relating to sourcing of responsibly produced salmon feed (see 4.1.1b below). In addition to the above, farms must also show that their feed suppliers comply with the more detailed requirements for traceability and ingredient sourcing that are specified under indicators 4.1.1 through 4.4.2. The ASC Salmon Standard allows farms to use one of two different methods to demonstrate compliance of feed producers: Method #1: Farms may choose to source feed from feed producers who used only those ingredients allowed under the ASC Salmon Standards during the production of a given batch of feed. For example, the farm may request its feed supplier to produce a batch of feed according to farm specifications. Audits of the feed producer will independently verify that manufacturing processes are in compliance with ASC requirements. Method #2: Farms may choose to source feed from feed producers who demonstrate compliance using a "mass-balance" method. In this method, feed producers show that the balance of all ingredients (both amount and type) used during a given feed production period meets ASC requirements. However, mixing of ingredients into the general silos and production lines is allowed during manufacturing. Audits of the feed producer will independently verify that manufacturing processes are in compliance with ASC requirements. The mass balance method can be applied, for example, to integrated feed production companies that handle all steps of feed manufacturing (purchasing of raw materials, processing to finished feed, and sales) under the management of a single legal entity. Note 1: The term "feed producer" is used here to identify the organization that produces the fish feed (i.e. it is the "feed manufacturer"). In most cases, the organization supplying feed to a farm (i.e. the feed supplier) will be the same organization that produced the feed, but there may be instances where feed suppliers are not directly responsible for feed production. Regardless of whether the farm sources feeds directly from a feed producer or indirectly through an intermediary organization, it remains the farm's obligation to show evidence that all feeds used are in compliance with requirements.					
4.1.1	**Indicator**: Evidence of traceability, demonstrated by the feed producer, of feed ingredients that make up more than 1% of the feed [50]. **Requirement:** Yes **Applicability:** All	a. Maintain detailed records of all feed suppliers and purchases including contact information and purchase and delivery records.	July - December 2017: 847 880 kg total (Skretting 100 %) Skretting: www.skretting.com	Compliant		
		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.	Feed suppliers informed of relevant ASC requirements in mail to Skretting 09.11.2017.			
		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.	Skretting : GlobalG.A.P. Certified, GGN : 4050373823641, valid to 22.06.2018.			
		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.	Method #2			
		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 [50].	Skretting: Statement "Documentation to demonstrate compliance with ASC Standards for responsible salmon aquaculture", December 2016.			
		-	Statement and certificate verified.			
Footnote	[50] 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.					
	Criterion 4.2 Use of wild fish for feed [51]					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
Footnote	[51] See Appendix VI for transparency requirements for 4.2.1 and 4.2.2.					
4.2.1	**Indicator**: Fishmeal Forage Fish Dependency Ratio (FFDRm) for grow-out (calculated using formulas in Appendix IV- 1) **Requirement:** < 1.2 **Applicability:** All	**Instruction to Clients for Indicator 4.2.1 - Calculation of FFDRm** Farms must calculate the Fishmeal Forage Fish Dependency Ration (FFDRm) according to formula presented in Appendix IV-1 using data from the most recent complete production cycle. Farms must also show that they have maintained sufficient information in order to make an accurate calculation of FFDRm as outlined below. For first audits, farms may be exempted from compliance with Indicator 4.2.1 for the most recent complete production cycle (i.e. if the FFDRm of the most recent crop was > 1.2) if the farm can satisfactorily demonstrate to the auditor that: - the client understands how to accurately calculate FFDRm; - the client maintains all information needed to accurately calculate FFDRm (i.e. all feed specs for > 6 months) for the current production cycle; and - the client can show how feed used for the current production cycle will ensure that the farm will meet requirements at harvest (i.e. FFDRm < 1.2).				
		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.	Previous full cycle 2015G: 99% Skretting and 1% EWOS. Skretting statement December 2016: 76 % of fishmeal from reduction fisheries and 24 % from trimmings and byproducts. 13,1 % fishmeal in feed.	Compliant	Not seen FFDRm submitted to ASC. Jan Petter Kosmo 13.03.2018: Closed	0,48
		b. For FFDRm calculation, exclude fishmeal derived from rendering of seafood by-products (e.g. the "trimmings" from a human consumption fishery.	Skretting statement December 2016: 24 % of fishmeal from trimmings and byproducts. 13,1 % fishmeal in feed.			
		c. Calculate eFCR using formula in Appendix IV-1 (use this calculation also in 4.2.2 option #1).	Previous full cycle 2015G: EFCR 1,11			
		d. Calculate FFDRm using formulas in Appendix IV-1.	Previous full cycle 2015G: FFDRm 0,48			
		e. Submit FFDRm to ASC as per Appendix VI for each production cycle.	Not seen FFDRm submitted to ASC.			
4.2.2	**Indicator**: 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 [52] (calculated according to Appendix IV-2) **Requirement:** FFDRo < 2.52 or (EPA + DHA) < 30 g/kg feed **Applicability:** All	Note: Under Indicator 4.2 2, farms can choose to calculate FFDRo (Option #1) or EPA & 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.				
		a. Maintain a detailed inventory of the feed used as specified in 4.2.1a.	Previous full cycle 2015G: 99% Skretting and 1% EWOS. Skretting statement December 2016: 76 % of fishmeal from reduction fisheries and 24 % from trimmings and byproducts. 13,1 % fishmeal in feed.	Compliant	Not seen FFDRo submitted to ASC. Jan Petter Kosmo 13.03.2018: Closed	1,6095
		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.	Skretting statement December 2016: 26 % of fishoil from trimmings and byproducts.			
		c. Inform the CAB whether the farm chose option #1 or option #2 to demonstrate compliance with the requirements of the Standard.	Option 1			
		d. For option #1, calculate FFDRo using formulas in Appendix IV-1 and using the eFCR calculated under 4.2.1c.	Previous full cycle 2015G: FFDRo 1,6095			
		e. For option #2, calculate amount of EPA + DHA using formulas in Appendix IV-2.	Option 1			
		f. Submit FFDRo or EPA & DHA to ASC as per Appendix VI for each production cycle.	Not seen FFDRo submitted to ASC.			
Footnote	[52] 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 quality at the time of landing does not meet official regulations with regard to fish suitable for human consumption. Fishmeal and fish oil that are produced from trimmings can be excluded from the calculation as long as the origin of the trimmings is not any species that are classified as critically endangered, endangered or vulnerable in the IUCN Red List of Threatened Species (http://www.iucnredlist.org).					
	Criterion 4.3 Source of marine raw materials					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
4.3.1	**Indicator**: Timeframe for all fishmeal and fish oil used in feed to come from fisheries [53] certified under a scheme that is an ISEAL member [54] and has guidelines that specifically promote responsible environmental management of small pelagic fisheries **Requirement:** Not required **Applicability:** N/A			N/A		
Footnote	[53] 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	[54] Meets ISEAL guidelines as demonstrated through full membership in the ISEAL Alliance, or equivalent as determined by the Technical Advisory Group of the ASC.					

4.3.2	**Indicator**: Prior to achieving 4.3.1, the FishSource score [55] for the fishery(ies) from which all marine raw material in feed is derived **Requirement:** All individual scores ≥ 6, and biomass score ≥ 6 **Applicability:** All	**Instruction to Clients for Indicator 4.3.2 - FishSource Score of Fish Used in Feed** To determine FishSource scores of the fish species used as feed ingredients, do the following: -go to http://www.fishsource.org/ - type the species into the search function box and choose the accurate fishery -confirm that the search identifies the correct fishery then scroll down or click on the link from the menu on the left reads "Scores" For first audits, farms must have scoring records that cover all feeds purchased during the previous 6-month period. Note: Indicator 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.				
		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).	Skretting statement "Documentation to demonstrate compliance with ASC Standards for responsible salmon aquaculture", December 2016. List of fish products used as feed ingredients in "2017 marine raw material mass balance calculation Skretting Norway": Blue whiting (NE Atlantic) MSC certified, Herring, Mackerel, Norway Pout, Sandeel, Sardine, Sprat, Peruvian Anchoveta, Capelin (Icelandic).	Compliant	Not seen FishSource score of Sprat. Not seen independent assessment of sprat. Jan Petter Kosmo 13.03.2018: Closed. Sprat used in feed >6 months ago, this is first audit.	
		b. Confirm that each individual score ≥ 6 and the biomass score is ≥ 6.	All individual scores ≥ 6 and biomass score ≥ 6, except Sprat. Refer to Interim solution on Marine Raw Material Requirements in the ASC Farm Standards. In effect 21 September 2016			
		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.	Not seen FishSource score of Sprat. Not seen independent assessment of sprat.			
		-	All have scores except Sprat.			
Footnote	[55] Or equivalent score using the same methodology. See Appendix IV-3 for explanation of FishSource scoring.					
4.3.3	**Indicator**: 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. **Requirement:** Yes **Applicability:** All	**Instruction to Clients for Indicator 4.3.3 - Third-Party Verification of Traceability** 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 audits of feed producers (see 4.1.1c) as evidence that traceability systems are in compliance. Alternatively, farms may show that their feed producers comply with traceability requirements of Indicator 4.3.3 by submitting evidence that suppliers, and the batches of fishmeal and oil, are certified to the International Fishmeal and Fish Oil Organization's Global Standard for Responsible Supply or to the Marine Stewardship Council Chain of Custody Standard. For the first audit, a minimum of 6 months of data on feed is required and evidence shall relate to species used in said dataset.				
		a. Obtain from the feed supplier documentary evidence that the origin of all fishmeal and fish oil used in the feed is traceable via a third-party verified chain of custody or traceability program.	Skretting : GlobalG.A.P. Certified, GGN : 4050373823641, valid to 22.06.2018.	Compliant		
		b. Ensure evidence covers all the species used (as consistent with 4.3.2a, 4.2.1a, and 4.2.2a).	Skretting : GlobalG.A.P. Certified, GGN : 4050373823641, valid to 22.06.2018.			
4.3.4	**Indicator**: Feed containing fishmeal and/or fish oil originating from by-products [56] or trimmings from IUU [57] catch or from fish species that are categorized as vulnerable, endangered or critically endangered, according to the IUCN Red List of Threatened Species [58], whole fish and fish meal from the same species and family as the species being farmed **Requirement:** None [59] **Applicability:** All except as noted in [59]	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.	List of fish products used as feed ingredients in "2017 marine raw material mass balance calculation Skretting Norway" includes by-products and trimmings	Compliant		
		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.	List of fish products used as feed ingredients in "2017 marine raw material mass balance calculation Skretting Norway" includes by-products and trimmings.			
		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 [58] and explaining how they are able to demonstrate this (i.e. through other certification scheme or through their independent audit).	List of fish products used as feed ingredients in "2017 marine raw material mass balance calculation Skretting Norway" includes by-products and trimmings			
		d. If meal or oil originated from a species listed as "vulnerable" by IUCN, obtain documentary evidence to support the exception as outlined in [59].	Not from vulnerable fisheries			
4.3.5	**Indicator:** Presence and evidence of a responsible sourcing policy for the feed manufacturer for marine ingredients that includes a commitment to continuous improvement of source fisheries **Requirement:** Yes **Applicability:** All	a. Request a link to a public policy from the feed manufacturer 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 and committing to continuous improvement of source fisheries.	Skretting statement "Documentation to demonstrate compliance with ASC Standards for responsible salmon aquaculture", December 2016. List of fish products used as feed ingredients in "2017 marine raw material mass balance calculation Skretting Norway": Blue whiting (NE Atlantic) MSC certified, Herring, Mackerel, Norway Pout, Sandeel, Sardine, Sprat, Peruvian Anchoveta, Capelin (Icelandic).	Compliant		
		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 indicator 4.3.1.	Statement regarding feed raw material sources, 05.01.2018 signed Odd Strøm - Nova Sea AS.			
		c. Compile a list of the origin of all fish products used as feed ingredients in all feed.	List of fish products used as feed ingredients in "2017 marine raw material mass balance calculation Skretting Norway" includes by-products and trimmings			
Footnote	[56] 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	[57] IUU: Illegal, Unregulated and Unreported.					
Footnote	[58] The International Union for the Conservation of Nature reference can be found at http://www.iucnredlist.org/.					
Footnote	[59] 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.					
	Criterion 4.4 Source of non-marine raw materials in feed					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
4.4.1	**Indicator**: Presence and evidence of a responsible sourcing policy for the feed manufacturer for feed ingredients that comply with recognized crop moratoriums [60] and local laws [61] **Requirement:** Yes **Applicability:** All	a. Compile and maintain a list of all feed suppliers with contact information. (See also 4.1.1a)	2015G: 99% Skretting and 1% EWOS. 2017G: 100% Skretting Skretting: www.skretting.com EWOS: www.cargill.com	Compliant		
		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.	"Nutreco Supplier Code of Conduct" per June 2014			
		c. Confirm that third party audits of feed suppliers (4.1.1c) show evidence that supplier's responsible sourcing policies are implemented.	Skretting : GlobalG.A.P. Certified, GGN : 4050373823641, valid to 22.06.2018.			
Footnote	[60] Moratorium: A period of time in which there is a suspension of a specific activity until future events warrant a removal of the suspension or issues regarding the activity have been resolved. In this context, moratoriums may refer to suspension of the growth of defined agricultural crops in defined geographical regions.					
Footnote	[61] 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	**Indicator**: Percentage of soya or soya-derived ingredients in the feed that are certified by the Roundtable for Responsible Soy (RTRS) or equivalent [62]	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.	Statement regarding feed raw material sources, 05.01.2018 signed Odd Strøm - Nova Sea AS.			
		b. Prepare a letter stating the farm's intent to source feed containing soya certified under the RTRS (or equivalent)	Statement regarding feed raw material sources, 05.01.2018 signed Odd Strøm - Nova Sea AS.			
		c. Notify feed suppliers of the farm's intent (4.4.2b).	Feed suppliers informed of relevant ASC requirements in mail to Skretting 09.11.2017.	Compliant		100 %

	Requirement: 100% **Applicability:** All	d. Obtain and maintain declaration from feed supplier(s) detailing the origin of soya in the feed.	Skretting statement "Documentation to demonstrate compliance with ASC Standards for responsible salmon aquaculture", December 2016, includes information regarding soya.			
		e. Provide evidence that soya used in feed is certified by the Roundtable for Responsible Soy (RTRS) or equivalent [62]	Skretting statement "Documentation to demonstrate compliance with ASC Standards for responsible salmon aquaculture", December 2016, purchase soya which originate from ProTerra.			
Footnote	[62] Any alternate certification scheme would have to be approved as equivalent by the Technical Advisory Group of the ASC.					
4.4.3	**Indicator**: Evidence of disclosure to the buyer [63] of the salmon of inclusion of transgenic [64] plant raw material, or raw materials derived from transgenic plants, in the feed **Requirement:** Yes, for each individual raw material containing > 1% transgenic content [65] **Applicability:** All	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.	Skretting statement "Documentation to demonstrate compliance with ASC Standards for responsible salmon aquaculture", December 2016, no genetically feed raw materials are approved under Norwegian law.	Compliant	Not seen confirmation that the farm has informed ASC whether feeds containing transgenic ingredients are use on farm. Jan Petter Kosmo 13.03.2018: Closed	
		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.	Skretting statement "Documentation to demonstrate compliance with ASC Standards for responsible salmon aquaculture", December 2016, no genetically feed raw materials are approved under Norwegian law.			
		c. Inform ASC whether feed contains transgenic ingredients (yes or no) as per Appendix VI for each production cycle.	Not seen confirmation that the farm has informed ASC whether feeds containing transgenic ingredients are use on farm.			
Footnote	[63] 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	[64] 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	[65] See Appendix VI for transparency requirement for 4.4.3.					
	Criterion 4.5 Non-biological waste from production					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
4.5.1	**Indicator**: Presence and evidence of a functioning policy for proper and responsible [66] treatment of non-biological waste from production (e.g., disposal and recycling) **Requirement:** Yes **Applicability:** All	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.	Statement Nova Sea signed Odd Strøm 29.11.2017 states no dumping and waste disposal according to Norwegian law and delivered to recycling stations.	Compliant		
		b. Prepare a declaration that the farm does not dump non-biological waste into the ocean.	Statement Nova Sea signed Odd Strøm 29.11.2017 states no dumping and waste disposal according to Norwegian law and delivered to recycling stations.			
		c. Provide a description of the most common production waste materials and how the farm ensures these waste materials are properly disposed of.	Procedure "Avfallshåndtering sjø" 24.01.2018 states ensilage delivered to ScanBio, cages delivered to Østbø (and further to Nofir), nets to Østbø/Egersund Net (and further to Nofir), feed bags delivered to SAR/Retura SHMIL, special waste delivered to Østbø, metal delivered to Østbø/Retura SHMIL, household waste delivered to Retura Iris/Retura HAF/Østbø, electronic waste delivered to Østbø/Retura SHMIL, light bulbs delivered to Østbø/Retura SHMIL. Procedure also describes storing, delivery time and handling. Medicines/treatments should be delivered to supplier/pharmacy.			
		d. Provide a description of the types of waste materials that are recycled by the farm.	Cages/feed pipes delivered to Østbø (and further to Nofir for recycling). Nets/ropes to Østbø/Egersund Net (and further to Nofir for recycling).			
Footnote	[66] 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	**Indicator**: Evidence that non-biological waste (including net pens) from grow-out site is either disposed of properly or recycled **Requirement:** Yes **Applicability:** All	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)	Procedure "Avfallshåndtering sjø" 24.01.2018 states ensilage delivered to ScanBio, cages delivered to Østbø (and further to Nofir), nets to Østbø/Egersund Net (and further to Nofir), feed bags delivered to SAR/Retura SHMIL, special waste delivered to Østbø, metal delivered to Østbø/Retura SHMIL, household waste delivered to Retura Iris/Retura HAF/Østbø, electronic waste delivered to Østbø/Retura SHMIL, light bulbs delivered to Østbø/Retura SHMIL. Procedure also describes storing, delivery time and handling. Medicines/treatments should be delivered to supplier/pharmacy.	Compliant		
		b. Provide a description of the types of waste materials that are recycled by the farm. (See also 4.5.1d)	Cages/feed pipes delivered to Østbø (and further to Nofir for recycling). Nets/ropes to Østbø/Egersund Net (and further to Nofir for recycling).			
		c. Inform the CAB of any infractions or fines for improper waste disposal received during the previous 12 months and corrective actions taken..	No infractions identified.			
		d. Maintain records of disposal of waste materials including old nets and cage equipment.	Nets delivered to Egersund Net (dep. Vevelstad), e.g. receipt from Egersund Net shows delivery of 15 nets 13.03.2017, 16 nets 19.06.2017 and 12 nets 01.11.2017 Environment diploma 2016 for Nova Sea by Nofir, delivered 40079 kg fish farming nets (decrease in non-renewable resources is about 68134 kg oil equivalents, decrease in carbon footprint is about 144284 kg CO2 equivalents). Report from Østbø for the period 01.01.2017 - 31.12.2017, delivered from Rødøy (Renga and Bukkøya); oil 613 liter, diesel 374 liter, oil filters 100 kg, led batteries 940 kg, small batteries 276 kg. Declared from Rødøy (Renga and Bukkøya) at "www.avfallsdeklarering.no" 18.11.2018: led batteries 940 kg, oil 613 liter, diesel 374 liter, oil filters 100 kg, small batteries 276 kg.			
	Criterion 4.6 Energy consumption and greenhouse gas emissions on farms [67]					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
Footnote	[67] See Appendix VI for transparency requirements for 4.6.1, 4.6.2 and 4.6.3.					
4.6.1	**Indicator**: 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 **Requirement:** Yes, measured in kilojoule/t fish produced/production cycle **Applicability:** All	**Instruction to Clients for Indicator 4.6.1 - Energy Use Assessment** 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 applying for certification. Boundaries for operational energy use should correspond to the sources of Scope 1 and Scope 2 emissions (see Appendix V-1). Energy use corresponding to Scope 3 emissions (i.e. the energy used to fabricate materials that are purchased by the farm) is not required. However the SAD Steering Committee encourages companies to integrate energy use assessments across the board in the company. For the purposes of calculating energy consumption, the duration of the production cycle is the entire life cycle "at sea" - it does not include freshwater smolt production stages. Farms that have integrated smolt rearing should break out the grow-out stage portion of energy consumption if possible. Quantities of energy (fuel and electricity) are converted to kilojoules. Verification is done by internal or external assessment following either the GHG Protocol Corporate Standard or ISO 14064-1 (see Appendix V-1 for more details).				
		a. Maintain records for energy consumption by source (fuel, electricity) on the farm throughout each production cycle.	Last production cycle (2015G): Diesel 6 719 000 000 kJ Electricity 46 000 000 kJ Total 6 765 309 875 kJ (Scope 1: 6 719 000 000 kJ, Scope 2: 46 000 000 kJ)	Compliant		1 581 854 kJ/ton biomass
		b. Calculate the farm's total energy consumption in kilojoules (kj) during the last production cycle.	Last production cycle (2015G): Diesel 6 719 000 000 kJ Electricity 46 000 000 kJ Total 6 765 309 875 kJ (Scope 1: 6 719 000 000 kJ, Scope 2: 46 000 000 kJ)			
		c. Calculate the total weight of fish in metric tons (t) produced during the last production cycle.	4 276,8 ton biomass			
		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.	Last production cycle (2015G): 1 581 854 kJ/ton biomass			
		e. Submit results of energy use calculations (4.6.1d) to ASC as per Appendix VI for each production cycle.	Submitted to ASC 09.02.2018			
		f. Ensure that the farm has undergone an energy use assessment that was done in compliance with requirements of Appendix V-1.	Scope 1 Diesel. Scope 2 Electricity. Assessed and compared between sites and production forms.			

4.6.2	**Indicator**: Records of greenhouse gas (GHG [68]) emissions [69] on farm and evidence of an annual GHG assessment, as outlined in Appendix V-1 **Requirement:** Yes **Applicability:** All	**Instruction to Clients for Indicator 4.6.2 - Annual GHG Assessment** Indicator 4.6.2 requires that farms must have an annual Greenhouse Gas (GHG) assessment. Detailed instructions are presented in Appendix V-1 and references therein. The scope of this requirement is restricted to operational boundaries for the farm site(s) that is applying for certification. However the SAD Steering Committee encourages companies to integrate GHG accounting practices across the board in the company. Verification may be done by internal or external assessment following either the GHG Protocol Corporate Standard or ISO 14064-1 (see Appendix V-1 for more details). Note: For the purposes of this standard, GHGs are defined as the six gases listed in the Kyoto Protocol: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF_6).				
		a. Maintain records of greenhouse gas emissions on the farm.	Records verified.	Compliant		495 021 kg CO2
		b. At least annually, calculate all scope 1 and scope 2 GHG emissions in compliance with Appendix V-1.	Last production cycle (15G): Scope 1: 494 272 kg CO2 Scope 2: 749 kg CO2 Total: 495 021 kg CO2			
		c. For GHG calculations, select the emission factors which are best suited to the farm's operation. Document the source of those emissions factors.	Scope 1 diesel and scope 2 is purchased electricity.			
		d. For GHG calculations involving conversion of non-CO_2 gases to CO_2 equivalents, specify the Global Warming Potential (GWP) used and its source.	CO2 used			
		e. Submit results of GHG calculations (4.6.2d) to ASC as per Appendix VI at least once per year.	Submitted to ASC 09.02.2018			
		f. Ensure that the farm undergoes a GHG assessment as outlined in Appendix V-1 at least annually.	Calculations and assessments provided.			
Footnote	[68] For the purposes of this standard, GHGs are defined as the six gases listed in the Kyoto Protocol: carbon dioxide (CO_2); methane (CH4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF_6).					
Footnote	[69] GHG emissions must be recorded using recognized methods, standards and records as outlined in Appendix V.					
4.6.3	**Indicator**: Documentation of GHG emissions of the feed [70] used during the previous production cycle, as outlined in Appendix V, subsection 2 **Requirement:** Yes **Applicability:** All	**Instruction to Clients for Indicator 4.6.3 - GHG Emissions of Feed** Indicator 4.6.3 requires that farms document the greenhouse gas emissions (GHG) associated with any feeds used during salmon production. Farms will need to obtain this information from their feed supplier(s) and thereafter maintain a continuous record of Feed GHG emissions throughout all production cycles. This requirement applies across the entire previous production cycle. Therefore farms should inform their feed supplier(s) and: - the farm provides its feed suppliers with detailed information about the requirements including a copy of the methodology outlined in Appendix V, subsection 2; - the farm explain what analyses must be done by feed suppliers; and - the farm explains to feed suppliers what documentary evidence will be required by the farm to demonstrate compliance. Note1: Farms may calculate GHG emissions of feed using the average raw material composition used to produce the salmon (by weight) rather than using feed composition on a lot-by-lot basis. Note2: Feed supplier's calculations must include Scope 1, Scope 2, and Scope 3 GHG emissions as specified in Appendix V, subsection 2.				
		a. Obtain from feed supplier(s) a declaration detailing the GHG emissions of the feed (per kg feed).	Skretting GHG emission factor 1,97 (2016).	Compliant		9352 ton CO2
		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.	Last production cycle (2015G): 4747 ton feed.			
		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.	Last production cycle (2015G): 9352 ton CO2.			
		d. Submit GHG emissions of feed to ASC as per Appendix VI for each production cycle.	Submitted to ASC 09.02.2018			
Footnote	[70] 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 calculating GHG emissions per unit feed. Farm site then shall use that information to calculate GHG emissions for the volume of feed they used in the prior production cycle.					
	Criterion 4.7 Non-therapeutic chemical inputs [71,72]					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
Footnote	[71] Closed production systems that do not use nets and do not use antifoulants shall be considered exempt from standards under Criterion 4.7.					
Footnote	[72] See Appendix VI for transparency requirements for 4.7.1, 4.7.3 and 4.7.4.					
4.7.1	**Indicator**: For farms that use copper-treated nets [73], evidence that nets are not cleaned [74] or treated in situ in the marine environment **Requirement:** Yes **Applicability:** All farms except as noted in [71]	a. Prepare a farm procedure for net cleaning and treatment that describes techniques, technologies, use of off-site facilities, and record keeping.	Procedure "Vaskebåt" 26.10.2016 regarding washing at sea with Ronc/Rov or manually by washing boat. Procedure " Nøter, drift og vedlikehold" 23 01.2018 regarding control and records ("Havbruksloggen"), washing and off-site service, maintenance, etc.	Compliant	Not seen farm policy and practice not allowing heavy cleaning for copper-treated nets in situ. Jan Petter Kosmo 13.03.2018: Closed	
		b. Maintain records of antifoulants and other chemical treatments used on nets.	Smolt nets treated with "E5 Greenline", nets for large fish untreated.			
		c. Declare to the CAB whether copper-based treatments are used on nets.	Copper-based treatment on 3 of 10 nets.			
		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.	Not seen farm policy and practice not allowing heavy cleaning for copper-treated nets in situ.			
		e. Inform ASC whether copper antifoulants are used on farm (yes or no) as per Appendix VI for each production cycle.	Submitted to ASC 09.02.2018			
Footnote	[73] 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, at some point prior in their lifespan, been treated with copper may still consider nets as untreated so long as sufficient time and cleaning has elapsed as in this definition. This will allow farms to move away from use of copper without immediately having to purchase all new nets.					
Footnote	[74] Light cleaning of nets is allowed. Intent of the standard is that, for example, the high-pressure underwater washers could not be used on copper treated nets under this standard because of the risk of copper flaking off during this type of heavy or more thorough cleaning.					
4.7.2	**Indicator**: For any farm that cleans nets at on-land sites, evidence that net-cleaning sites have effluent treatment [75] **Requirement:** Yes **Applicability:** All farms except as noted in [71]	a. Declare to the CAB whether nets are cleaned on-land.	Nets are cleaned on-land by Egersund Net avd. Vevelstad.	Compliant		
		b. If nets are cleaned on-land, obtain documentary evidence from each net-cleaning facility that effluent treatment is in place.	Procedure from Egersund net "Måling og registrering av inntaks- og avløpsvann fra renseanlegg" 20.05.2017 states the shall not discharge waste water containing more copper than intake water contains. Egersund Net washing process 05.12.2017: Waste water cleaned and copper collected and delivered to Retura Shmil for recycling. Copper sedimented in own tank and stored for further disposal. Waste water is analyzed regularly for copper to ensure good cleaning process. Analyze record for 2017 shows effluent treatment of waste water. Seen confirmation from Retura SHMIL 01.02.2018 regarding delivery from Egersund net (departement Vevelstad) in the period 01.01.2017 - 31.12.2017: 53240 kg copper-mud organic and 31200 kg copper-mud unorganic.			
		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.	Egersund Net washing process 05.12.2017: Waste water cleaned and copper collected and delivered to Retura Shmil for recycling. Copper sedimented in own tank and stored for further disposal. Waste water is analyzed regularly for copper to ensure good cleaning process. Analyze record for 2017 shows effluent treatment of waste water. Seen confirmation from Retura SHMIL 01.02.2018 regarding delivery from Egersund net (departement Vevelstad) in the period 01.01.2017 - 31.12.2017: 53240 kg copper-mud organic and 31200 kg copper-mud unorganic.			
Footnote	[75] Treatment must have appropriate technologies in place to capture copper if the farm uses copper-treated nets.					
	Indicator: For farms that use copper nets or copper-treated nets, evidence of testing for copper level in the	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).				
		a. Declare to the CAB whether the farm uses copper nets or copper-treated nets. (See also 4.7.1c). If "no", Indicator 4.7.3 does not apply.	Copper-based treatment are used on 3 of 10 nets.		MOM-C not performed	

4.7.3	sediment outside of the AZE, following methodology in Appendix I-1 **Requirement:** Yes **Applicability:** All farms except as noted in [71]	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.	Reference stations: ASC ref 1 (31,1 mg Cu/kg) and ASC ref 2 (30,3 mg Cu/kg) Stations outside AZE: ASC 3 (43,7 mg Cu/kg) and ASC 4 (37,1 mg Cu/kg)	Minor	at peak biomass (at >75% peak biomass) last production cycle. Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted	
		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.	MOM-C not performed at peak biomass (at >75% peak biomass) last production cycle. Guidance: Veileder TA 2229:2007 "Veileder for klassifisering av miljøkvalitet i fjorder og kystfarvann" Statens forurensingstilsyn. Method: EPA 200.7, ISO 11885, EPA 6010 and SM 3120.			
4.7.4	**Indicator**: Evidence that copper levels [76] are < 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 **Requirement:** Yes **Applicability:** All farms except as noted in [71] and excluding those farms shown to be exempt from Indicator 4.7.3	a. Inform the CAB whether: 1) farm is exempt from Indicator 4.7.4 (as per 4.7.3a), or 2) Farm has conducted testing of copper levels in sediment.	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA , Olex map with 6 sampling points, adapted to site specific bathymetric, production, current, etc. (reference stations: ASC ref 1 and ASC ref 2, stations outside AZE: ASC 3 and ASC 4, stations inside AZE: ASC 1 and ASC 2).	Minor	Copper level are >34 mg Cu/kg dry sediment: Stations outside AZE: ASC 3 (43,7 mg Cu/kg) and ASC 4 (37,1 mg Cu/kg) Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted	Min. 37,1
		b. Provide evidence from measurements taken in 4.7.3b that copper levels are < 34 mg Cu/kg dry sediment weight.	Copper level are >34 mg Cu/kg dry sediment: Reference stations: ASC ref 1 (31,1 mg Cu/kg) and ASC ref 2 (30,3 mg Cu/kg) Stations outside AZE: ASC 3 (43,7 mg Cu/kg) and ASC 4 (37,1 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).	Copper level are >34 mg Cu/kg dry sediment: Reference stations: ASC ref 1 (31,1 mg Cu/kg) and ASC ref 2 (30,3 mg Cu/kg) Stations outside AZE: ASC 3 (43,7 mg Cu/kg) and ASC 4 (37,1 mg Cu/kg)			
		d. Analyze results from 4.7.4c to show the background copper concentrations as measured at three reference sites in the water body.	Copper level are >34 mg Cu/kg dry sediment: Reference stations: ASC ref 1 (31,1 mg Cu/kg) and ASC ref 2 (30,3 mg Cu/kg) Stations outside AZE: ASC 3 (43,7 mg Cu/kg) and ASC 4 (37,1 mg Cu/kg)			
		e. Submit data on copper levels in sediments to ASC as per Appendix VI for each production cycle.	Submitted to ASC 09.02.2018			
Footnote	[76] 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	**Indicator**: 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 **Requirement:** Yes **Applicability:** All farms except as noted in [71]	a. Identify all biocides used by the farm in net antifouling.	Smolt nets treated with "E5 Greenline", nets for large fish untreated.	Compliant		
		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.	Netwax E5 Greenline is satisfying declared (700111) according to product information record at Norwegian Environment Agency.			
PRINCIPLE 5: MANAGE DISEASE AND PARASITES IN AN ENVIRONMENTALLY RESPONSIBLE MANNER						
Criterion 5.1 Survival and health of farmed fish [77]						
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
Footnote	[77] See Appendix VI for transparency requirements for 5.1.4, 5.1.5 and 5.1.6.					
5.1.1	**Indicator**: Evidence of a fish health management plan for the identification and monitoring of fish diseases, parasites and environmental conditions relevant for good fish health, including implementing corrective action when required **Requirement:** Yes **Applicability:** 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.	VHP for Nova Sea includes diseases/parasites, treatments, health goals, cleaner fish, proactive measures, handling, veterinary visits, etc. signed Kristin Ottesen - HaVet 23.01.2017. Site specific health plans for Bukkøya and Renga with goals, visit log, etc. Signed Rebekka B. Ødegaard - HaVet.	Compliant		
		b. Ensure that the farm's current fish health management plan was reviewed and approved by the farm's designated veterinarian [78].	VHP for Nova Sea includes diseases/parasites, treatments, health goals, cleaner fish, proactive measures, handling, veterinary visits, etc. signed Kristin Ottesen - HaVet 23.01.2017. Site specific health plans for Bukkøya and Renga with goals, visit log, etc. Signed Rebekka B. Ødegaard - HaVet.			
5.1.2	**Indicator**: Site visits by a designated veterinarian [78] at least four times a year, and by a fish health manager [79] at least once a month **Requirement:** Yes **Applicability:** All	a. Maintain records of visits by the designated veterinarian [78] and fish health managers [82]. If schedule cannot be met, a risk assessment must be provided.	Minimum 12 visits per year. Visit by designated veterinarian consist of e.g. inspection of fish and dead fish, diagnose, training, etc. Report from routine visit 30.11.2017 by Kristin Ottesen - HaVet; obduction of fish, samples, vaccine score, diagnosed HSMB	Compliant		
		b. Maintain a current list of personnel who are employed as the farm's designated veterinarian(s) [78] and fish health manager(s) [79].	Iselin B. Stock Evje, HPR 10032014, valid to 17.05.2063 Mattias Bendiksen Lund, HPR 10030512, valid to 19.01.2065 Kristin Ottesen, HPR 8338485, valid to 10.05.2048 Rebekka B. Ødegaard, HPR 10032073, valid to 14.09.2061 Ioan Simion, HPR 10002007, valid to 09.01.2062			
		c. Maintain records of the qualifications of persons identified in 5.1.2b.	Iselin B. Stock Evje, HPR 10032014, valid to 17.05.2063 Mattias Bendiksen Lund, HPR 10030512, valid to 19.01.2065 Kristin Ottesen, HPR 8338485, valid to 10.05.2048 Rebekka B. Ødegaard, HPR 10032073, valid to 14.09.2061 Ioan Simion, HPR 10002007, valid to 09.01.2062			
Footnote	[78] 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	[79] 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	**Indicator**: Percentage of dead fish removed and disposed of in a responsible manner **Requirement:** 100% [80] **Applicability:** All	a. Maintain records of mortality removals to show that dead fish are removed regularly and disposed of in a responsible manner.	Daily removal of dead fish (registration in FishTalk system) and processed to ensilage. Ensilage collected on tank and delivered to Scanbio, e.g. delivery of 20,9 cubic ensilage to ScanBio 04.10.2014 (reference 012942). Not seen documentation of delivery of ensilage after 2014.	Compliant	Not seen documentation of delivery of ensilage after 2014. Jan Petter Kosmo 13.03.2018: Closed	
		b. Collect documentation to show that disposal methods are in line with practices recommended by fish health managers and/or relevant legal authorities.	System established for handling and documentation according to requirements in national legislation handled by NFSA. Ensilage collected on tank and delivered to Scanbio, e.g. delivery of 20,9 cubic ensilage to ScanBio 04.10.2014 (reference 012942).			
		c. For any exceptional mortality event where dead fish were not collected for post-mortem analysis, keep a written justification.	No exceptional mortalities on previous and current cycle (2017G).			
Footnote	[80] 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	**Indicator**: Percentage of mortalities that are recorded, classified and receive a post-mortem analysis **Requirement:** 100% [81] **Applicability:** All	Note: Farms are required to maintain mortality records from the current and two previous production cycles. For first audit, records for the current and prior production cycle are required. It is recommended that farms maintain a compiled set of records to demonstrate compliance with 5.1.3 - 5.1.6.				
		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 [78], fish health manager [79]); - cause of mortality (specify disease or pathogen) where known; and - classification as 'unexplained' when cause of mortality is unknown (see 5.1.6).	FishTalk record shows all mortalities and causes Last complete cycle (15G): total mortality 5,52% of this 12,96% is virus and 50,27% unexplained mortality (unexplained+virus 63,23%). Precent cycle (17G): total mortality 1,47% of this 41,62% is virus and 19,52% unexplained mortality (unexplained+virus 61,14%).	Compliant		100 %
		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.	All mortalities are diagnosed and post-mortem analysis are done on a statistically relevant number of fish (ref unspecified numbers above). Lab analyses routinely.			
		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).	Report from routine visit 30.11.2017 by Kristin Ottesen - HaVet; obduction of fish, samples, vaccine score, diagnosed HSMB			
		d. Using results from 5.1.3a-c, classify each mortality event and keep a record of those classifications.	Record are available and documented in Fish Talk, all mortalities are categorised.			

		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).	Record are available and documented in Fish Talk, all mortalities are categorised.			
		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).	Submitted to ASC 09.02.2018			
Footnote	[81] If on-site diagnosis is inconclusive, this standard requires off-site laboratory diagnosis. A qualified professional must conduct all 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.					
5.1.5	**Indicator**: Maximum viral disease-related mortality [82] on farm during the most recent production cycle **Requirement:** ≤ 10% **Applicability:** All	a. Calculate the total number of mortalities that were diagnosed (see 5.1.4) as being related to viral disease.	Last complete cycle (15G): total mortality 5,52% of this 12,96% (0,72%) is virus and 50,27% unexplained mortality (unexplained+virus 63,23%).	Compliant		0,72 %
		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.	Last complete cycle (15G): total mortality 5,52% of this 12,96% is virus and 50,27% unexplained mortality (unexplained+virus 63,23%).			
		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).	Submitted to ASC 09.02.2018			
Footnote	[82] Viral disease-related mortality count shall include unspecified and unexplained mortality as it could be related to viral disease.					
5.1.6	**Indicator**: Maximum unexplained mortality rate from each of the previous two production cycles, for farms with total mortality > 6% **Requirement:** ≤ 40% of total mortalities **Applicability:** All farms with > 6% total mortality in the most recent complete production cycle.	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 > 6%, proceed to 5.1.6b.	Last complete cycle (15G): total mortality 5,52% of this unexplained mortality 50,27% and virus 12,96%.	N/A	total mortality 5,52%	50,27 %
		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.	Last complete cycle (15G): total mortality 5,52% of this unexplained mortality 50,27% and virus 12,96%.			
		c. Submit data on maximum unexplained mortality to ASC as per Appendix VI for each production cycle.	Submitted to ASC 09.02.2018			
5.1.7	**Indicator**: A farm-specific mortalities reduction program that includes defined annual targets for reductions in mortalities and reductions in unexplained mortalities **Requirement:** Yes **Applicability:** All	Note: Farms have the option to integrate their farm-specific mortality reduction program into the farm's fish health management plan (5.1.1).				
		a. Use records in 5.1.4a to assemble a time-series dataset on farm-specific mortalities rates and unexplained mortality rates.	VHP for Nova Sea includes diseases/parasites, treatments, health goals, cleaner fish, proactive measures, handling, veterinary visits, etc. signed Kristin Ottesen - HaVet 23.01.2017. Site specific health plans for Bukkøya and Renga with goals, visit log, etc. Signed Rebekka B. Ødegaard - HaVet.	Compliant		
		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.	VHP for Nova Sea includes diseases/parasites, treatments, health goals, cleaner fish, proactive measures, handling, veterinary visits, etc. signed Kristin Ottesen - HaVet 23.01.2017. Site specific health plans for Bukkøya and Renga with goals, visit log, etc. Signed Rebekka B. Ødegaard - HaVet.			
		c. Ensure that farm management communicates with the veterinarian, fish health manager, and staff about annual targets and planned actions to meet targets.	In interview site staff were aware of targets in VHP/fish health plan.			
	Criterion 5.2 Therapeutic treatments [83]					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
Footnote	[83] See Appendix VI for transparency requirements for 5.2.1, 5.2.5, 5.2.6 and 5.2.10.					
Instruction to Clients and CABs for Criterion 5.2 - Records Related to Therapeutic Treatments Indicator 5.2.1 requires that farms maintain detailed record of all chemical and therapeutant use. Those records maintained for compliance with 5.2.1, if all consolidated into a single place, can be used to demonstrate performance against subsequent Indicators (5.2.1 through 5.2.10) under Criterion 5.2.						
5.2.1	**Indicator**: On-farm documentation that includes, at a minimum, detailed information on all chemicals [84] 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 **Requirement:** Yes **Applicability:** All	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; - t of fish treated; - the WHO classification of antibiotics (also see note under 5.2.8); and - the supplier of the chemical or therapeutant.	List with approved chemicals/therapeutants "Godkjente legemidler i Nova Sea" 24.01.2017 with name of product, active substance, withdrawal period, MRL, marketing company, authorizing country. Treatments done are anaesthetics and delicing, all under responsible veterinarian`s prescriptions. No Antibiotics used. Registered in Fishtalk; fish group, treatment, date for usage, quantity and dosage, withdrawal periods, batch, etc.	Compliant		
		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.	Prescriptions and FishTalk records available. E.g. Prescription 504047 for Renga, veterinarian Rebekka B. Ødegaard 13.09.2017, 1 kg Finquel, 25 daydegrees withdrawal period. E.g. Fishtalk record for group 17.01.001, 13.11.2017, Finquel, batch 17f100/1, quarantine until 18.11.2017			
		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).	Submitted to ASC 09.02.2018			
Footnote	[84] Chemicals used for the treatment of fish.					
5.2.2	**Indicator**: Allowance for use of therapeutic treatments that include antibiotics or chemicals that are banned [85] in any of the primary salmon producing or importing countries [86] **Requirement:** None **Applicability:** All	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 [86].	Not seen list of antibiotics and treatments that are banned in any of the primary salmon producing or importing countries.	Compliant	Not seen list of antibiotics and treatments that are banned in any of the primary salmon producing or importing countries. Jan Petter Kosmo 13.03.2018: Closed	
		b. Maintain records of voluntary and/or mandatory chemical residue testing conducted or commissioned by the farm from the prior and current production cycles.	NFSA mandatory testing by NIFES on site and/or at harvest line. Results published in yearly NIFES report.			
		-	-			
Footnote	[85] "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 SAD, regardless of country of production or destination of the product. The SAD recommends that ASC maintain a list of a banned therapeutants.					
Footnote	[86] For purposes of this standard, those countries are Norway, the UK, Canada, Chile, the United States, Japan and France.					
5.2.3	**Indicator**: Percentage of medication events that are prescribed by a veterinarian **Requirement:** 100% **Applicability:** All	a. Obtain prescription for all therapeutant use in advance of application from the farm veterinarian (or equivalent, see [78] for definition of veterinarian).	Prescriptions and FishTalk records available. E.g. Prescription 504047 for Renga, veterinarian Rebekka B. Ødegaard 13.09.2017, 1 kg Finquel, 25 daydegrees withdrawal period.	Compliant		100 %
		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.	100 % of treatments are prescribed by a veterinarian, prescriptions stored in system.			
5.2.4	**Indicator**: Compliance with all withholding periods after treatments **Requirement:** Yes **Applicability:** All	a. Incorporate withholding periods into the farm's fish health management plan (see 5.1.1a).	100% of treatments are prescribed by a veterinarian. Prescriptions in system. Treatments registered in FishTalk with withholding periods as defined in prescription. Procedure "Bruk og kontroll av legemidler i Nova Sea" 11.11.2017 includes instruction for storage, control, withholding, CV and prescription.	Compliant		
		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.	Documented in FishTalk. Treated fishgroups marked in FishTalk according to days/degree-days withholding period stated in prescription.			
		c. Show compliance with all withholding periods by providing treatment records (see 5.2.1a) and harvest dates for the most recent production cycle.	Verified in CVs for fishgroups (CV report from FishTalk).			

5.2.5	**Indicator**: Maximum farm level cumulative parasiticide treatment index (PTI) score as calculated according to the formula in Appendix VII **Requirement:** PTI score ≤ 13 **Applicability:** All	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.	2017G: 0,2 2015G: 29,1 VR97 and VR98 used in calculation	Compliant	Calculations verified. PTI >13 on 2015G. Jan Petter Kosmo 13.03.2018: Closed	29,1
		b. Provide the auditor with access to records showing how the farm calculated the PTI score.	Calculations verified. PTI >13 on 2015G. 2017G: PTI 0,2 2015G: PTI 29,1 VR97 and VR98 used in calculation			
		c. Submit data on farm level cumulative PTI score to ASC as per Appendix VI for each production cycle.	Submitted to ASC 09.02.2018			
5.2.6	**Indicator**: For farms with a cumulative PTI ≥ 6 in the most recent production cycle, demonstration that parasiticide load [87] is at least 15% less that of the average of the two previous production cycles **Requirement:** Yes **Applicability:** All farms with a cumulative PTI ≥ 6 in the most recent production cycle	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.	2017G: 0,2 2015G: 29,1 VR97 and VR98 used in calculation	Compliant		99 %
		b. Using results from 5.2.5 and the weight of fish treated (kg), calculate parasiticide load in the most recent production cycle [90].	Calculations verified. Present cycle (2017G): parasitic load 915 (99% less) Previous cycle (2015G): parasitic load 110425 VR97 and VR98 used in calculation			
		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.	Calculations verified. Present cycle (2017G): parasitic load 915 (99% less) Previous cycle (2015G): parasitic load 110425 VR97 and VR98 used in calculation			
		d. As applicable, submit data to ASC on parasiticide load for the most recent production cycle and the two previous production cycles (Appendix VI).	Submitted to ASC 09.02.2018			
Footnote	[87] Parasiticide load = Sum (kg of fish treated x PTI). 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.					
5.2.7	**Indicator**: Allowance for prophylactic use of antimicrobial treatments [88] **Requirement:** None **Applicability:** All	a. Maintain records for all purchases of antibiotics (invoices, prescriptions) for the current and prior production cycles.	No ABs used prophylactic the recent cycles	N/A	No ABs used prophylactic the recent cycles	
		b. Maintain a detailed log of all medication-related events (see also 5.2.1a and 5.2.3)	No ABs used prophylactic the recent cycles			
		c. Calculate the total amount (g) and treatments (#) of antibiotics used during the current and prior production cycles (see also 5.2.9).	No ABs used prophylactic the recent cycles			
Footnote	[88] The designated veterinarian must certify that a pathogen or disease is present before prescribing medication.					
5.2.8	**Indicator**: Allowance for use of antibiotics listed as critically important for human medicine by the World Health Organization (WHO [89]) **Requirement:** None [90] **Applicability:** All	Note 1: Farms have the option to certify only a portion of the fish or farm site when WHO-listed [89] antibiotics have been used at the production facility (see 5.2.8d). To pursue this option, farms must request an exemption from the CAB in advance of the audit and provide sufficient records giving details on which pens were treated and traceability of those treated fish. Note 2: It is recommended that the farm veterinarian review the WHO list [see 89] in detail and be aware that the list is meant to show examples of members of each class of drugs, and is not inclusive of all drugs.				
		a. Maintain a current version of the WHO list of antimicrobials critically and highly important for human health [89].	WHO Critically important antimicrobials for human medicine 5th revision, October 2016. List of treatments used is presented, no AB's used at site.	Compliant		
		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.	WHO Critically important antimicrobials for human medicine 5th revision, October 2016. List of treatments used is presented, no AB's used at site.			
		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.	WHO Critically important antimicrobials for human medicine 5th revision, October 2016. List of treatments used is presented, no AB's used at site.			
		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.	WHO Critically important antimicrobials for human medicine 5th revision, October 2016. List of treatments used is presented, no AB's used at site.			
Footnote	[89] The fifth edition of the WHO list of critically and highly important antimicrobials was released in 2009 and is available at: http://www.who.int/foodsafety/publications/antimicrobials-fifth/en/.					
Footnote	[90] 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.					
5.2.9	**Indicator**: Number of treatments [91] of antibiotics over the most recent production cycle **Requirement:** ≤ 3 **Applicability:** All	Note: for the purposes of Indicator 5.2.9, "treatment" means a single course of medication given to address a specific disease issue and that may last a number of days and be applied in one or more pens (or cages).				
		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.	No antibiotics used	Compliant		0
		b. Calculate the total number of treatments of antibiotics over the most recent production cycle and supply a verifiable statement of this calculation.	No antibiotics used			
Footnote	[91] A treatment is a single course medication given to address a specific disease issue and that may last a number of days.					
5.2.10	**Indicator**: If more than one antibiotic treatment is used in the most recent production cycle, demonstration that the antibiotic load [92] is at least 15% less that of the average of the two previous production cycles **Requirement:** Yes [93] **Applicability:** All	Note: Indicator 5.2.10 requires that farms must demonstrate a 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.				
		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.	No antibiotics used	N/A	No antibiotics used	
		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.	No antibiotics used			
		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.	No antibiotics used			
		d. Submit data on antibiotic load to ASC as per Appendix VI (if applicable) for each production cycle.	Submitted to ASC 09.02.2018			
Footnote	[92] Antibiotic load = the sum of the total amount of active ingredient of antibiotics used (kg).					
Footnote	[93] 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.					
5.2.11	**Indicator**: Presence of documents demonstrating that the farm has provided buyers [94] of its salmon a list of all therapeutants used in production **Requirement:** Yes **Applicability:** All	a. Prepare a procedure which outlines how the farm provides buyers [94] of its salmon with a list of all therapeutants used in production (see 4.4.3b).	Procedure "Fakturering i Visma" 10.10.2017 states that CV shall follow sales.	Compliant		
		b. Maintain records showing the farm has informed all buyers of its salmon about all therapeutants used in production.	Seen example of FishTalk CV for cage 7 with treatment at FW site with vaccine Pentium Forte Pluss, and SW treatments e.g. Finquel 27.01.2018 and Finquel 20.10.2017.			
Footnote	[94] Buyer: The company or entity to which the farm or the producing company is directly selling its product.					
Criterion 5.3 Resistance of parasites, viruses and bacteria to medicinal treatment.						
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			

5.3.1	**Indicator**: Bio-assay analysis to determine resistance when two applications of a treatment have not produced the expected effect **Requirement:** Yes **Applicability:** All	**Instruction to Clients for Indicator 5.3.1 - Identifying the 'Expected Effect' of Medicinal Treatment** Indicator 5.3.1 requires that farms identify treatments that have not produced the expected effect. The SAD Steering Committee recognizes that the "expected effect" will vary with health condition and type of medicinal treatment. Therefore farms and auditors will need to review the pre- and post-treatment condition of fish in order to understand and evaluate the impact of treatment. Example: sea lice treatment with Emamektin benzoate The SAD SC recommends that a typical baseline for effectiveness of Emamektin benzoate is a minimum of 90 percent reduction in abundance of lice on the farmed fish. To determine whether treatment has produced the expected effect, farm and auditor must review pre- and post-treatment lice counts. If the calculated percent reduction in lice is < 90% then the treatment did not produce the expected effect and a bio-assay should be performed to determine whether sea lice have developed resistance. Note: If field-based bio-assays for determining resistance are ineffective or unavailable, the farm shall have samples analyzed by an independent laboratory to determine resistance formation. The auditor shall record in the audit report why field-based bio-assays were deemed ineffective and shall include results from the laboratory analyses of resistance formation.				
		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.	No consecutive treatments done in present cycle without desired effect.	N/A	No consecutive treatments done in present cycle without desired effect.	
		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.	No consecutive treatments done in present cycle without desired effect.			
		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.	No consecutive treatments done in present cycle without desired effect.			
		d. Keep a record of all results arising from 5.3.1c.	No consecutive treatments done in present cycle without desired effect.			
5.3.2	**Indicator**: When bio-assay tests determine resistance is forming, use of an alternative, permitted treatment, or an immediate harvest of all fish on the site **Requirement:** Yes **Applicability:** 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.	No consecutive treatments done in present cycle without desired effect.	N/A	No consecutive treatments done in present cycle without desired effect.	
		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.	No consecutive treatments done in present cycle without desired effect.			
		Criterion 5.4 Biosecurity management [95]				
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
Footnote	[95] See Appendix VI for transparency requirements for 5.4.2 and 5.4.4.					
5.4.1	**Indicator**: Evidence that all salmon on the site are a single-year class [96] **Requirement:** 100% [97] **Applicability:** All farms except as noted in [97]	a. Keep records of the start and end dates of periods when the site is fully fallow after harvest.	2015G last harvest date: 22.06.2016 Stocking 2017G from 10.07.2017 to 21.10.2017	Compliant		
		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.	2015G last harvest date: 22.06.2016 Stocking 2017G from 10.07.2017 to 21.10.2017			
		-	Stocking 2017G from 10.07.2017 to 21.10.2017			
Footnote	[96] 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	[97] 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, 2) farm sites that have ≥95% water recirculation, a pre-entry disease screening protocol, dedicated quarantine capability and biosecurity measures for waste to ensure there is no discharge of live biological material to the natural environment (e.g. UV or other effective treatment of effluent) .					
5.4.2	**Indicator**: Evidence that if the farm suspects an unidentifiable transmissible agent, or if the farm experiences unexplained increased mortality, [98] the farm has: 1. Reported the issue to the ABM and to the appropriate regulatory authority 2. Increased monitoring and surveillance [99] on the farm and within the ABM 3. Promptly [100] made findings publicly available **Requirement:** Yes **Applicability:** 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 [98]. The accepted level of significance (for example, p < 0.05) should be agreed between farm and CAB.	Continuos evaluation. No events of UIA category mortality categorized nor suspected for the most recent production cycle. No UIA detected nor suspected at farm. Ref to indicator 5.1.4 a for details of monitoring.	Compliant		
		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.	Continuos evaluation. No events of UIA category mortality categorized nor suspected for the most recent production cycle. No UIA detected nor suspected at farm. Ref to indicator 5.1.4 a for details of monitoring.			
		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.	No UIA detected nor suspected at farm.			
		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 [99] on the farm and within the ABM; and 3) Promptly (within one month) make findings publicly available.	No UIA detected nor suspected at farm.			
		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).	No UIA detected nor suspected at farm.			
Footnote	[98] Increased mortality: A statistically significant increase over background rate on a monthly basis.					
Footnote	[99] Primary aim of monitoring and surveillance is to investigate whether a new or adapted disease is present in the area.					
Footnote	[100] Within one month.					
5.4.3	**Indicator**: Evidence of compliance [101] with the OIE Aquatic Animal Health Code [102] **Requirement:** Yes **Applicability:** All	**Instruction to Clients for Indicator 5.4.3 - Compliance with the OIE Aquatic Animal Health Code** Indicator 5.4.3 requires that farms show evidence of compliance with the OIE Aquatic Animal Health Code (see http://www.oie.int/index.php?id=171). Compliance is defined as farm practices consistent with the intentions of the Code. For purposes of the ASC Salmon Standard, this means that the farm must have written procedures stating how the farm will initiate an aggressive response to detection of an exotic OIE-notifiable disease on the farm ['exotic' = not previously found in the area or had been fully eradicated (area declared free of the pathogen)]. An aggressive response will involve, at a minimum, the following actions: - depopulation of the infected site; - implementation of quarantine zones (see note below)in accordance with guidelines from OIE for the specific pathogen; and - additional actions as required under Indicator 5.4.4. To demonstrate compliance with Indicator 5.4.3, clients have the to option to describe how farm practices are consistent with the intentions of the OIE Aquatic Animal Health Code by developing relevant policies and procedures and integrating them into the farm's fish health management plan. Note: The Steering Committee recognizes that establishment of quarantine zones will likely incorporate mandatory depopulation of sites close to the infected site and affect some, though not necessarily all, of the ABM.				
		a. Maintain a current version of the OIE Aquatic Animal Health Code on site or ensure staff have access to the most current version.	Link to OIE "Aquatic Animal Health Code 2017" (relevant diseases in list are Pancreas Disease and Infectious salmon anemia virus).	Compliant		
		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.	VHP for Nova Sea includes diseases/parasites, treatments, health goals, cleaner fish, proactive measures, handling, veterinary visits, etc. signed Kristin Ottesen - HaVet 23.01.2017. Link to OIE "Aquatic Animal Health Code 2017" (relevant diseases in list are Pancreas Disease and Infectious salmon anemia virus).			
		-	Verified during audit.			
Footnote	[101] 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 site and affect some, though not necessarily all, of the ABM. Exotic signifies not previously found in the area or had been fully eradicated (area declared free of the pathogen).					
Footnote	[102] OIE 2011. Aquatic Animal Health Code. http://www.oie.int/index.php?id=171.					
		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.	Site/management has the responsibility to inform governments if notifiable diseases occur.			

5.4.4	**Indicator:** If an OIE-notifiable disease [103] 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 2. the farm immediately notified the other farms in the ABM [104] 3. the farm and the ABM enhanced monitoring and conducted rigorous testing for the disease 4. the farm promptly [105] made findings publicly available **Requirement:** Yes **Applicability:** All	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 an 5.4.4d do not apply.	Diagnosed ISA 13.06.2016. NFSA and other farmers informed. Culling of all fish finished 20.04.2016 (NFSA limit 24.07.2016).	Compliant		
		c. If an OIE-notifiable disease was confirmed on the farm (see 5.4.4b), then retain documentary evidence to show that the farm: 1) immediately culled the pen(s) in which the disease was detected; 2) immediately notified the other farms in the ABM [104] 3) enhanced monitoring and conducted rigorous testing for the disease; and 4) promptly (within one month) made findings publicly available.	Diagnosed ISA 13.06.2016. NFSA and other farmers informed. Culling of all fish finished 20.04.2016 (NFSA limit 24.07.2016).			
		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).	Submitted to ASC 09.02.2018			
		-	NFSA informed and result made publicly available at www.barentswatch.no.			
Footnote	[103] At the time of publication of the final draft standards, OIE-notifiable diseases relevant to salmon aquaculture were: Epizootic hematopoietic necrosis, Infectious hematopoietic necrosis (IHN), Infectious salmon anemia (ISA), Viral haemorrhagic septicaemia (VHS) and Gyrodactylosis (Gyrodactylus salaris).					
Footnote	[104] This is in addition to any notifications to regulatory bodies required under law and the OIE Aquatic Animal Health Code.					
Footnote	[105] Within one month.					
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.						
PRINCIPLE 6: DEVELOP AND OPERATE FARMS IN A SOCIALLY RESPONSIBLE MANNER						
6.1 Freedom of association and collective bargaining [106]						
		Compliance Criteria				
Footnote	[106] 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	**Indicator:** Evidence that workers have access to trade unions (if they exist) and union representative(s) chosen by themselves without managerial interference **Requirement:** Yes **Applicability:** All	a. Workers have the freedom to join any trade union, free of any form of interference from employers or competing organizations set up or backed by the employer. Farms shall prepare documentation to demonstrate to the auditor that domestic regulation fully meets these criteria.	8 of 10 workers are organised. The information on Freedom of association is presented in Self declaration of Social Practice. Workers aware of their right.	Minor	In interview TU representative states, that he has insufficient information about activities in HR (hiring, dismissing, discrimination handling, conflict/grievance solving etc.) to do good service for workers. The time for meeting and communicating the workers is not properly allocated, as no dedicated procedure for replacing TU representative at his direct job is defined. Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted	
		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."	TU worker representative: Jon Arne Nygaard for the area. The worker representative works with organised employees. Safety representative for area is elected Tor Erik Sarassen.			
		c. Trade union representatives (or worker representatives) have access to their members in the workplace at reasonable times on the premises.	The worker representative communicate with employees in meetings and by phone or e-mail. NC evidence: In interview TU representative states, that he has insufficient information about activities in HR (hiring, dismissing, discrimination handling, conflict/grievance solving etc.) to do good service for workers. The time for meeting and communicating the workers is not properly allocated, as no dedicated procedure for replacing TU representative at his direct job is defined.			
		d. Be advised that workers and union representatives (if they exist) will be interviewed to confirm the above.	Interview confirms information above			
6.1.2	**Indicator:** Evidence that workers are free to form organizations, including unions, to advocate for and protect their rights **Requirement:** Yes **Applicability:** All	a. Employment contract explicitly states the worker's right of freedom of association.	The Job contracts has link to Self declaration of Social Practice of the Company.	Compliant		
		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).	The right is communicated via training of quality system which has Self declaration of Social practice. Site managers are responsible to communicate the Self declaration of Social practice to all employees.			
		c. Be advised that workers will be interviewed to confirm the above.	Interview confirms information above.			
6.1.3	**Indicator:** Evidence that workers are free and able to bargain collectively for their rights **Requirement:** Yes **Applicability:** All	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.	No outstanding cases what are in conflict with standard requirements.	Compliant		
		b. Employer has explicitly communicated a commitment to ensure the collective bargaining rights of all workers.	Collective bargaining agreement in place as Tariff agreement.			
		c. There is documentary evidence that workers are free and able to bargain collectively (e.g. collective bargaining agreements, meeting minutes, or complaint resolutions).	Collective bargaining agreement in place as Tariff agreement.			
Criterion 6.2 Child labor						
		Compliance Criteria				
6.2.1	**Indicator:** Number of incidences of child [107] labor [108] **Requirement:** None **Applicability:** All except as noted in [107]	a. In most countries, the law states that minimum age for employment is 15 years. There are two possible exceptions: - in developing countries where the legal minimum age may be set to 14 years (see footnote 108); or - in countries where the legal minimum age is set higher than 15 years, in which case the legal minimum age of the country is followed. If the farm operates in a country where the legal minimum ages is not 15, then the employer shall maintain documentation attesting to this fact.	Standard requirements apply.	Compliant		
		b. Minimum age of permanent workers is 15 or older (except in countries as noted above).	The youngest employee on the date of certification - over 18 years old.			
		c. Employer maintains age records for employees that are sufficient to demonstrate compliance.	Records are kept in HR system.			
Footnote	[107] 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 ILO convention 138.					
Footnote	[108] Child Labor: Any work by a child younger than the age specified in the definition of a child.					
6.2.2	**Indicator:** Percentage of young workers [109] that are protected [110] **Requirement:** 100% **Applicability:** All	a. Young workers are appropriately identified in company policies & training programs, and job descriptions are available for all young workers at the site.	Most of the relevant training young workers have to receive as all other employees. The job conditions and limitations are defined in job contract attachment for young workers.	Compliant		
		b. All young workers (from age 15 to less than 18) are identified and their ages are confirmed with copies of IDs.	The young workers are identified by IDs.			
		c. Daily records of working hours (i.e. timesheets) are available for all young workers.	Timesheets are available			
		d. For young workers, the combined daily transportation time and school time and work time does not exceed 10 hours.	Work is organised in normal 5 days weeks or on 7/7 shifts.			
		e. Young workers are not exposed to hazards [111] and do not perform hazardous work [112]. Work on floating cages in poor weather conditions shall be considered hazardous.	The general hazards that should be avoided are discussed with young workers prior to each work.			
		f. Be advised that the site will be inspected and young workers will be interviewed to confirm compliance.	No young workers were employed on the date of the audit.			
Footnote	[109] Young Worker: Any worker between the age of a child, as defined above, and under the age of 18.					
Footnote	[110] 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 shall not exceed 10 hours.					
Footnote	[111] 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	[112] 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 chemicals).					
Criterion 6.3 Forced, bonded or compulsory labor						
		Compliance Criteria				
	Indicator: Number of incidences of forced, [113]	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).	Contracts do not lead to workers being indebted. Separate contracts for crediting of higher education could be signed with specific conditions for working in company after the education.			
		b. Employees are free to leave workplace and manage their own time.	Confirmed by interview.			

6.3.1	bonded [114] or compulsory labor **Requirement:** None **Applicability:** All	c. Employer does not withhold employee's original identity documents.	No cases identified	Compliant		
		d. Employer does not withhold any part of workers' salaries, benefits, property or documents in order to oblige them to continue working for employer.	No cases identified			
		e. Employees are not to be obligated to stay in job to repay debt.	No cases identified.			
		f. Maintain payroll records and be advised that workers will be interviewed to confirm the above.	Payroll records are available. The interviews has confirmed above information.			
Footnote	[113] Forced (Compulsory) labor: All work or service that is extracted from any person under the menace of any penalty for which a person has not offered himself/herself voluntarily or for which such work or service is demanded as a repayment of debt. "Penalty" can imply monetary sanctions, physical punishment, or the loss of rights and privileges or restriction of movement (e.g., withholding of identity documents).					
Footnote	[114] Bonded labor: When a person is forced by the employer or creditor to work to repay a financial debt to the crediting agency.					
	Criterion 6.4 Discrimination [118]					
		Compliance Criteria				
Footnote	[115] 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-based pay increase or bonus is not by itself discriminatory. Positive discrimination in favour of people from certain underrepresented groups may be legal in some countries.					
6.4.1	**Indicator:** Evidence of comprehensive [116] and proactive anti-discrimination policies, procedures and practices **Requirement:** Yes **Applicability:** All	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, 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.	The anti-discrimination policy is presented in Self declaration of Social practice.	Compliant	Interview with management. Training documents and missing evidences of non-discrimination training. Darius Pamakstys 11.03.2018: Closed	
		b. Employer has clear and transparent company procedures that outline how to raise, file, and respond to discrimination complaints.	Whistle blowing procedure in place (ID13447 revision 2018).			
		c. Employer respects the principle of equal pay for equal work and equal access to job opportunities, promotions and raises.	The tariff agreement is the base of equal pay, it is applied to all employees.			
		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 effective.	Site Manager and employees were trained on diversity in 2018. NC evidence: Interview with management. Training documents and missing evidences of non-discrimination training.			
Footnote	[116] 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	**Indicator:** Number of incidences of discrimination **Requirement:** None **Applicability:** All	a. Employer maintains a record of all discrimination complaints. These records do not show evidence for discrimination.	No cases identified.	Compliant		
		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.	Interview has confirmed absence of discrimination cases.			
	Criterion 6.5 Work environment health and safety					
		Compliance Criteria				
6.5.1	**Indicator:** Percentage of workers trained in health and safety practices, procedures [117] and policies on a yearly basis **Requirement:** 100% **Applicability:** All	a. Employer has documented practices, procedures (including emergency response procedures) and policies to protect employees from workplace hazards and to minimize risk of accident or injury. The information shall be available to employees.	The H&S procedures are in place. The site level Safety Job Analysis is applied prior to hazardous works to assess and discuss related risks. NC evidence: Missing documents.	Minor	Missing documents. Interview with management and employees revealed limited knowledge of emergency procedures. Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted	
		b. Employees know and understand emergency response procedures.	NC evidence: Interview with management and employees revealed limited knowledge of emergency procedures.			
		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 minimization, Occupational Safety and Health (OSH) and effective use of PPE.	Regular external and internal trainings are conducted.			
Footnote	[117] Health and safety training shall include emergency response procedures and practices.					
6.5.2	**Indicator:** Evidence that workers use Personal Protective Equipment (PPE) effectively **Requirement:** Yes **Applicability:** All	a. Employer maintains a list of all health and safety hazards (e.g. chemicals).	The list of H&S hazards is maintained together with list of H&S risks.	Compliant		
		b. Employer provides workers with PPE that is appropriate to known health and safety hazards.	All needed PPE is provided.			
		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.	The procedure and forms for PPE use are in place. H&S Training is conducted annually.			
		d. Be advised that workers will be interviewed to confirm the above.	The interviews has confirmed above information.			
6.5.3	**Indicator:** Presence of a health and safety risk assessment and evidence of preventive actions taken **Requirement:** Yes **Applicability:** All	a. Employer makes regular assessments of hazards and risks in the workplace. Risk assessments are reviewed and updated at least annually (see also 6.5.1a).	The risk assessment is conducted in register of H&S hazards. The risks are maintained in company level and site level. The annual risk assessment update is organised. Last round was done 2017-12, 2018-01. As well risks are discussed during SJA (safe job analysis) discussions prior to any hazardous activities event like splitting, de-licing, harvesting etc.	Compliant		
		b. Employees are trained in how to identify and prevent known hazards and risks (see also 6.5.1c).	Annual general training is applied for all employees by site managers. The Safety Job Analysis is applied prior to each hazardous work.			
		c. Health and safety procedures are adapted based on results from risk assessments (above) and changes are implemented to help prevent accidents.	The procedures are adapted in relation to risk assessment and H&S accidents investigation results.			
6.5.4	**Indicator:** Evidence that all health- and safety-related accidents and violations are recorded and corrective actions are taken when necessary **Requirement:** Yes **Applicability:** All	a. Employer records all health- and safety-related accidents.	H&S accidents are reported in system database.	Compliant	The records in management system are missing for root cause analysis results. Darius Pamakstys 08.04.2018: Closed	
		b. Employer maintains complete documentation for all occupational health and safety violations and investigations.	H&S violations and investigations are reported in system database.			
		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.	Corrective action plan for accidents are developed and implemented, Root cause analysis to be applied. NC evidence: The records in management system are missing for root cause analysis results.			
		d. Employees working in departments where accidents have occurred can explain what analysis has been done and what steps were taken or improvements made.	No accidents took place at this site. Information from other sites provided via e-mail and monthly summary.			
6.5.5	**Indicator:** 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 **Requirement:** Yes **Applicability:** All	a. Employer maintains documentation to confirm that all personnel are provided sufficient insurance to cover costs related to occupational accidents or injuries (if not covered under national law). Equal insurance coverage must include temporary, migrant or foreign workers. Written contract of employer responsibility to cover accident costs is acceptable evidence in place of insurance.	Sufficient insurance is provided for all employees who has the contract with the company.	Compliant		
6.5.6	**Indicator:** Evidence that all diving operations are conducted by divers who are certified **Requirement:** Yes **Applicability:** All	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.		Minor	No statement available. Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted	
		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.	The records of diving activities with the lists of personnel involved are maintained. NC evidence: No statement available.			
		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 international organization for diver certification.	Copies of divers' certificates are maintained .			
	Criterion 6.6 Wages					
		Compliance Criteria				

6.6.1	**Indicator:** The percentage of workers whose basic wage [118] (before overtime and bonuses) is below the minimum wage [119] **Requirement:** 0 (None) **Applicability:** All	a. Employer keeps documents to show the legal minimum wage in the country of operation. If there is no legal minimum wage in the country, the employer keeps documents to show the industry-standard minimum wage.	Salaries are defined in protocols of collective bargaining agreements' with TU, valid from 2016 to 2018	Compliant		
		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.	Employer records confirm that salaries are paid in line with Tarif agreement for fishery sector.			
		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.	Interview confirms fair salaries			
Footnote	[118] Basic wage: The wages paid for a standard working week (no more than 48 hours).					
Footnote	[119] If there is no legal minimum wage in a country, basic wages must meet the industry-standard minimum wage.					
6.6.2	**Indicator:** Evidence that the employer is working toward the payment of basic needs wage [120] **Requirement:** Yes **Applicability:** All	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 review of any national basic needs wage recommendations from credible sources such as national universities or government.	NC evidence: No evidences of employer and worker representatives cooperation to assess basic needs wages.	Compliant	No evidences of employer and worker representatives cooperation to assess basic needs wages. Missing basic needs wage calculation. Darius Pamakstys 08.04.2018: Closed	
		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.	NC evidence: Missing basic needs wage calculation.			
		c. Employer demonstrates how they have taken steps toward paying a basic needs wage to their workers.	Interview confirms fair salaries I line with Tariff agreement.			
Footnote	[120] 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	**Indicator:** Evidence of transparency in wage-setting and rendering [121] **Requirement:** Yes **Applicability:** All	a. Wages and benefits are clearly articulated to workers and documented in contracts.	The contracts refer to tariff agreement for the wage. Other support and bonuses are presented in company's intranet. The benefits are defined in job proposals for employees. NC evidence: job contracts are missing the reference to documents with defined benefits and support.	Minor	Job contracts are missing the reference to documents with defined benefits and support. Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted	
		b. The method for setting wages is clearly stated and understood by workers.	Interview confirms that method for setting wages is understood by workers.			
		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.	Payments are made into personal bank accounts.			
		d. Be advised that workers will be interviewed to confirm the above.	The interviews has confirmed above information.			
Footnote	[121] Payments shall be rendered to workers in a convenient manner.					
	Criterion 6.7 Contracts (labor) including subcontracting					
		Compliance Criteria				
6.7.1	**Indicator:** Percentage of workers who have contracts [122] **Requirement:** 100% **Applicability:** All	a. Employer maintains a record of all employment contracts.	Contracts are maintained.	Compliant		
		b. There is no evidence for labor-only contracting relationships or false apprenticeship schemes.	No evidences of labour-only contracting.			
		c. Be advised that workers will be interviewed to confirm the above.	The interviews has confirmed above information.			
Footnote	[122] 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 workers under apprenticeship terms without stipulating terms of the apprenticeship or wages under contract. It is a "false" apprenticeship if its purpose is to underpay people, avoid legal obligations or employ underage workers. Labor-only contracting arrangement: The practice of hiring workers without establishing a formal employment relationship for the purpose of avoiding payment of regular wages or the provision of legally required benefits, such as health and safety protections.					
6.7.2	**Indicator:** Evidence of a policy to ensure social compliance of its suppliers and contractors **Requirement:** Yes **Applicability:** All	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.	The subcontractors evaluation procedure and related documents do not apply social accountability criteria. NC evidence: Missing documents and records, Interview with management.	Minor	Missing documents and records, Interview with management. Very few records of communications with suppliers and subcontractors that relate to compliance with 6.7.2 are maintained. Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted	
		b. Producing company has criteria for evaluating its suppliers and contractors. The company keeps a list of approved suppliers and contractors.	Company has list of approved subcontractors, but social accountability criteria were not used for approval. NC evidence: Missing documents and records, Interview with management.			
		c. Producing company keeps records of communications with suppliers and subcontractors that relate to compliance with 6.7.2.	NC evidence: Very few records of communications with suppliers and subcontractors that relate to compliance with 6.7.2 are maintained.			
	Criterion 6.8 Conflict resolution					
		Compliance Criteria				
6.8.1	**Indicator:** Evidence of worker access to effective, fair and confidential grievance procedures **Requirement:** Yes **Applicability:** All	a. Employer has a clear labor conflict resolution policy for the presentation, treatment, and resolution of worker grievances in a confidential manner.	NC evidence: The whistle blowing policy is not fully developed to provide conflict resolution in a confidential manner.	Compliant	The whistle blowing policy is not fully developed to provide conflict resolution in a confidential manner. Darius Pamakstys 08.04.2018: Closed	
		b. Workers are familiar with the company's labor conflict policies and procedures. There is evidence that workers have fair access.	Workers demonstrate understanding of conflict resolution.			
		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.	No conflict cases identified.			
6.8.2	**Indicator:** Percentage of grievances handled that are addressed [123] within a 90-day timeframe **Requirement:** 100% **Applicability:** All	a. Employer maintains a record of all grievances, complaints and labor conflicts that are raised.	No records, as were no cases.	N/A	No records, as were no cases.	
		b. Employer keeps a record of follow-up (i.e. corrective actions) and timeframe in which grievances are addressed.	No records, as were no cases.			
		c. Maintain documentary evidence and be advised that workers will be interviewed to confirm that grievances are addressed within a 90-day timeframe.	No records, as were no cases. Interview confirms no cases fact.			
Footnote	[123] Addressed: Acknowledged and received, moving through the company's process for grievances, corrective action taken when necessary.					
	Criterion 6.9 Disciplinary practices					
		Compliance criteria				
6.9.1	**Indicator:** Incidences of excessive or abusive disciplinary actions **Requirement:** None **Applicability:** All	a. Employer does not use threatening, humiliating or punishing disciplinary practices that negatively impact a worker's physical and mental health or dignity.	No evidences of incorrect behaviour.	Compliant		
		b. Allegations of corporeal punishment, mental abuse [124], physical coercion, or verbal abuse will be investigated by auditors.	No cases identified.			
		c. Be advised that workers will be interviewed to confirm there is no evidence for excessive or abusive disciplinary actions.	The interviews has confirmed above information.			
Footnote	[124] 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	**Indicator:** Evidence of a functioning disciplinary action policy whose aim is to improve the worker [125] **Requirement:** Yes **Applicability:** All	a. Employer has written policy for disciplinary action which explicitly states that its aim is to improve the worker [125].	The disciplinary actions are defined in Working rules of the company.	Compliant		
		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.	The interviews has confirmed fair and effective disciplinary policy.			
Footnote	[125] If disciplinary action is 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.					
	Criterion 6.10 Working hours and overtime					
		Compliance criteria				
		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 (www.ilo.org).				

6.10.1	**Indicator:** Incidences, violations or abuse of working hours and overtime laws [126] **Requirement:** None **Applicability:** All	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.	The working time schemes are approved in Tariff agreement with Trade unions. In line with 6.10.1 c) The scheme of 7 days on-job and 7 days-off is used with 10 hours of working day not including lunch break.	Compliant		
		b. Records (e.g. time sheets and payroll) show that farm workers do not exceed the number of working hours allowed under the law.	The working time is managed within legal requirements.			
		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).	The scheme 7 by 7 is used with 10 hours of working day. The working time and off-time are balanced. The work in shifts is defined in job contracts.			
		d. Be advised that workers will be interviewed to confirm there is no abuse of working hours and overtime laws.	The interviews has confirmed above information.			
Footnote	[126] 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	**Indicator:** Overtime is limited, voluntary [127], paid at a premium rate [128] and restricted to exceptional circumstances **Requirement:** Yes **Applicability:** All except as noted in [130]	a. Payment records (e.g. payslips) show that workers are paid a premium rate for overtime hours.	Overtime is paid at premium rate.	Compliant		
		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).	Overtime is managed within labour law			
		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.	The interviews has confirmed voluntary overtime, the special cases agreed in collective bargaining agreement.			
Footnote	[127] Compulsory overtime is permitted if previously agreed to under a collective bargaining agreement.					
Footnote	[128] Premium rate: A rate of pay higher than the regular work week rate. Must comply with national laws/regulations and/or industry standards.					
	Criterion 6.11 Education and training					
		Compliance criteria				
6.11.1	**Indicator:** Evidence that the company regularly performs training of staff in fish husbandry, general farm and fish escape management and health and safety procedures **Requirement:** Yes **Applicability:** All	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.	Policy of supporting education is presented in job offer, what is part of the contract. The financial support for training is given.	Compliant		
		b. Employer maintains records of worker participation in educational opportunities as evidenced by course documentation (e.g. list of courses, curricula, certificates, degrees).	Records available in HR IT system and in personal files on site.			
		c. Be advised that workers will be interviewed to confirm that educational initiatives are encouraged and supported by the company.	The interviews has confirmed education encouraging by managers.			
	Criterion 6.12 Corporate policies for social responsibility					
		Compliance criteria				
6.12.1	**Indicator:** Demonstration of company-level [129] policies in line with the standards under 6.1 to 6.11 above **Requirement:** Yes **Applicability:** All	a. Company-level policies are in line with all social and labor requirements presented in 6.1 through 6.11.	Company level policies in place.	Compliant		
		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.	Approved.			
		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).	Applied in whole company.			
		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).	Access is provided, policies verified.			
Footnote	[129] 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.					
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.						
PRINCIPLE 7: BE A GOOD NEIGHBOR AND CONSCIENTIOUS CITIZEN						
	Criterion 7.1 Community engagement					
		Compliance Criteria				
7.1.1	**Indicator:** Evidence of regular and meaningful [130] consultation and engagement with community representatives and organizations **Requirement:** Yes **Applicability:** All	a. The farm pro-actively arranges for consultations with the local community at least twice every year (bi-annually).	NC evidence: Only invitation was sent to interested parties on 2018-01-24.	Minor	Only invitation was sent to interested parties on 2018-01-24. No information available. Missing documents. Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted	
		b. Consultations are meaningful. OPTIONAL: the farm may choose to use participatory Social Impact Assessment (pSIA) or an equivalent method for consultations.	NC evidence: No information available			
		c. Consultations include participation by representatives from the local community who were asked to contribute to the agenda.	Invitation is asking for contribution to agenda.			
		d. Consultations include communication about, or discussion of, the potential health risks of therapeutic treatments (see Indicator 7.1.3).	Included in agenda. NC evidence: no other documents available.			
		e. Maintain records and documentary evidence (e.g. meeting agenda, minutes, report) to demonstrate that consultations comply with the above.	Meeting agenda is available. NC evidence: missing documents.			
		f. Be advised that representatives from the local community and organizations may be interviewed to confirm the above.	No interview were used with stakeholders.			
Footnote	[130] 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	**Indicator:** Presence and evidence of an effective [131] policy and mechanism for the presentation, treatment and resolution of complaints by community stakeholders and organizations **Requirement:** Yes **Applicability:** All	a. Farm policy provides a mechanism for presentation, treatment and resolution of complaints lodged by stakeholders, community members, and organizations.	Complaint handling procedure is developed for internal issues. NC evidence: missing documents	Compliant	Missing documents. Darius Pamakstys 08.04.2018: Closed	
		b. The farm follows its policy for handling stakeholder complaints as evidenced by farm documentation (e.g. follow-up communications with stakeholders, reports to stakeholder describing corrective actions).	No complains received.			
		c. The farm's mechanism for handling complaints is effective based on resolution of stakeholder complaints (e.g. follow-up correspondence from stakeholders).	No complains received.			
		d. Be advised that representatives from the local community, including complainants where applicable, may be interviewed to confirm the above.	No interview were used with stakeholders			
Footnote	[131] Effective: In order to demonstrate that the mechanism is effective, evidence of resolutions of complaints can be given.					
7.1.3	**Indicator:** Evidence that the farm has posted visible notice [132] 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 **Requirement:** Yes **Applicability:** All	a. Farm has a system for posting notifications at the farm during periods of therapeutic treatment. (use of aneastatic baths is not regarded a therapeutant)	Company has system for posting the notifications at the sites during the therapeutic treatments.	Minor	No consultation meeting. See NC in 7.1.1 Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted	
		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).	The sings will be posted on the site during the treatments.			
		c. Farm communicates about the potential health risks from treatments during community consultations (see 7.1.1)	The health risks were not communicated during consultation meetings. NC evidence: No consultation meeting. See NC in 7.1.1			
		d. Be advised that members of the local community may be interviewed to confirm the above.	No interview were used with stakeholders			
Footnote	[132] Signage shall be visible to mariners and, for example, to fishermen passing by the farm.					
	Criterion 7.2 Respect for indigenous and aboriginal cultures and traditional territorie.					
		Compliance Criteria				

Instruction to Clients and CABs on Criterion 7.2 - Traditional Territories of Indigenous Groups

The ASC Salmon Standard requires that farms must be respectful of the traditional territories of indigenous groups. The Indicators listed under Criterion 7.2 were designed to fulfil this purpose in a manner consistent with the United Nations Declaration on the Rights of Indigenous Peoples. In many locales, the territorial boundaries of indigenous groups have a defined legal status according to local or national law. In such cases, it is straightforward to know whether a farm is operating in close proximity to indigenous people. However, when boundaries of indigenous territories are undefined or unknown, there is no simple way to establish whether the farm is operating in close proximity to indigenous groups. Here ASC provides the following guidance.

The intent behind the ASC Salmon Standard is that the farm will identify all neighbouring groups who are potentially negatively impacted by the farm's activities. The actual physical distance between the farm and an indigenous group is less important than understanding whether the farm is having a detrimental impact upon its neighbours. Effective community consultations are one of the best ways to identify such impacts to neighbour groups. Through a transparent process of consultation, indigenous groups who are put under "stress" by the farm will identify themselves and voice their concerns about the nature of the farm's impacts. Continued consultations between farm and neighbours should create a forum where any key issue can be discussed and resolved.

	Indicator: Evidence that indigenous groups were consulted as required by relevant local and/or national laws and regulations	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 [133]). If not then the requirements of 7.2.1 do not apply.	The application to have permission to operate covered identification of indigenous groups. No such groups present in neighbourhood.			
		b. Farm management demonstrates an understanding of relevant local and/or national laws and regulations that pertain to consultations with indigenous groups.	The national/local laws and regulations are known.		No traditional and	

7.2.1	**Requirement:** Yes **Applicability:** All farms that operate in indigenous territories or in proximity to indigenous or aboriginal people [133]	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; OR - farm confirms that government-to-government consultation occurred and obtains documentary evidence.	No traditional and indigenous groups are involved in the vicinity of the farm.	N/A	No traditional and indigenous groups are involved.	
		d. Be advised that representatives from indigenous groups may be interviewed to confirm the above.	No traditional and indigenous groups are involved.			
7.2.2	**Indicator:** Evidence that the farm has undertaken proactive consultation with indigenous communities **Requirement:** Yes [133] **Applicability:** All farms that operate in indigenous territories or in proximity to indigenous or aboriginal people [133]	a. See results of 7.2.1a (above) to determine whether the requirements of 7.2.2 apply to the farm.	No traditional and indigenous groups are involved.	N/A	No traditional and indigenous groups are involved.	
		b. Be advised that representatives from indigenous communities may be interviewed to confirm that the farm has undertaken proactive consultations.	No traditional and indigenous groups are involved.			
Footnote	[133] All standards related to indigenous rights only apply where relevant, based on proximity of indigenous territories.					
7.2.3	**Indicator:** Evidence of a protocol agreement, or an active process [134] to establish a protocol agreement, with indigenous communities **Requirement:** Yes **Applicability:** All farms that operate in indigenous territories or in proximity to indigenous or aboriginal people [133]	a. See results of 7.2.1a (above) to determine whether the requirements of 7.2.3 apply to the farm.	No specific protocol agreement is developed, as no interest from indigenous community expressed.	N/A	No specific protocol agreement is developed, as no interest from indigenous community expressed.	
		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 2) continued engagement in an active process [134] to reach a protocol agreement with the indigenous community.	No specific protocol agreement is developed, as no interest from indigenous community expressed.			
		c. Be advised that representatives from indigenous communities may be interviewed to confirm either 7.2.3b1 or b2 (above) as applicable.	No traditional and indigenous groups were interviewed, as certification related hearing process include local Sami groups.			
Footnote	[134] 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.					
	Criterion 7.3 Access to resources					
		Compliance Criteria				
7.3.1	**Indicator:** Changes undertaken restricting access to vital community resources [135] without community approval **Requirement:** None **Applicability:** All	a. Resources that are vital [135] to the community have been documented and are known by the farm (i.e. through the assessment process required under Indicator 7.3.2).	The resources are assessed and communicated with community during the operation licence application processing.	Compliant		
		b. The farm seeks and obtains community approval before undertaking changes that restrict access to vital community resources. Approvals are documented.	The resources are assessed and communicated with community during the operation licence application processing. Any changes, having influence to resources, during operation undergo hearing process prior to their implementation.			
		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.	No interview were used with stakeholders			
Footnote	[135] 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	**Indicator:** Evidence of assessments of company's impact on access to resources **Requirement:** Yes **Applicability:** All	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.	The resources are assessed and communicated with community during the operation license application processing. Any changes, having influence to resources, during operation undergo hearing process prior to their implementation.	Compliant		
		b. Be advised that representatives from the community may be interviewed to generally corroborate the accuracy of conclusions presented in 7.3.2a.	No interview were used with stakeholders			
INDICATORS AND STANDARDS FOR SMOLT PRODUCTION A farm seeking certification must have documentation from all of its smolt suppliers to demonstrate compliance with the following standards. The requirements are, in general, a subset of the standards in Principles 1 through 7, focusing on the impacts that are most relevant for smolt facilities. In addition, specific standards are applied to open systems (net pens), and to closed and semi-closed systems (recirculation and flow-through). [136]						
Footnote	[136] The SAD SC proposes this approach to addressing environmental and social performance during the smolt phase of production. In the medium term, the SC 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.					
SECTION 8: STANDARDS FOR SUPPLIERS OF SMOLT					Helgeland Smolt	
	Standards related to Principle 1					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
8.1	**Indicator**: Compliance with local and national regulations on water use and discharge, specifically providing permits related to water quality **Requirement:** Yes **Applicability:** All Smolt Producers	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).	Closed. Submitted to ASC 09.02.2018	Minor	Discharge permit states cleansing of discharge water, not seen evidence of fully functioning cleansing. Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted	
		b. Where legal authorization related to water quality are required, obtain copies of smolt suppliers' permits.	License from Nordland Fylkeskommune 12.03.2014, NR47, for 8 million smolt. Discharge license from Fylkesmannen i Nordland 25.11.2013 for 8 million smolt/2000 ton feed. Requires MOM-B survey every 4th year and cleansing of discharge water (50 % reduction of suspended solids and 20% reduction of organic matter).			
		c. Obtain records from smolt suppliers showing monitoring and compliance with discharge laws, regulations, and permit requirements as required.	Inspection report from Directorate of Fisheries 10.05.2016 states no non-conformances.			
		-	Discharge permit states cleansing of discharge water, not seen evidence of fully functioning cleansing. Water sample 02.01.2018: 96% cleansing of SS, 22,2% cleansing of KOF. Water sample 02.08.2017: 90,2% cleansing of SS, 91,9% cleansing of KOF. Water sample 28.03.2017: 12,2% cleansing of SS, 25,7% cleansing of KOF. Water sample 21.02.2017: 31,3% cleansing of SS, 31,9% cleansing of KOF. They are working to improve system of cleaning after problems in 2017/18			
8.2	**Indicator**: Compliance with labor laws and regulations **Requirement:** Yes **Applicability:** All Smolt Producers	a. Obtain declarations from smolt suppliers affirming compliance with labor laws and regulations.	The statement of compliance to requirements of ASC standard principle 6.1 - 6.11 and labour laws is available (signed on 2018-01-26)	Compliant		
		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)	Labour law inspection 2017-05-17 with no deviations found.			
	Standards related to Principle 2					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
8.3	**Indicator**: 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 **Requirement:** Yes **Applicability:** All Smolt Producers	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.				
		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.	Risk assessment for environment 13.11.2017 includes escape, chemicals, waste , infection, biodiversity, etc. MOM-B by Argus Miljø 06.09.2012, status 1. Not seen MOM-B last 4 years as stated in discharge permit (production started in 2016).	Minor	Not seen MOM-B last 4 years as stated in discharge permit (production started in 2016). Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted	
		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.	Risk assessment for environment 28.11.2017 includes plan. Procedure for biodiversity "Bevaringsplan for dyreliv og mangfold" 01.09.2017 includes birds, wild fish, waste, organic waste, escape, etc. Waste plan "Avfallsplan" 21.08.2017 includes rest waste, paper, special waste, metal, plastic (delivers waste to HAF)			

8.4	**Indicator**: 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) **Requirement:** 4 kg/mt of fish produced over a 12-month period **Applicability:** All Smolt Producers	**Instruction to Clients for Indicator 8.4 - Calculating Total Phosphorus Released per Ton of Fish Produced** 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 can release into the environment per metric ton (mt) of fish produced over a 12-month period. The requirement is set at 4 kg/mt. The calculation of total phosphorus released is made using a "mass balance" approach. Detailed instructions and formulas are given in Appendix VIII-1. If applicable, farms may take account of any physical removals of phosphorus in the form of sludge provided there is evidence to show: - the smolt supplier has records showing the total quantity of sludge removed from site over the relevant time period; - the supplier determined phosphorus concentration (% P) in removed sludge by sampling and analysing representative batches; and - the sludge was properly disposed off site and in accordance with the farm's biosolid management plan.				
		a. Obtain records from smolt suppliers showing amount and type of feeds used for smolt production during the past 12 months.	Used feed 2017: 1 394 360 kg (80% EWOS, 19% Polarfeed and 1% BioMar).	Compliant		10,8 kg/ton biomass produced
		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).	Calculated average approx. 1,51 %.			
		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.	2017: P from feed: 25 372 kg			
		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.	Produced biomass: 1 636 931 kg			
		e. Calculate the amount of phosphorus in fish biomass produced (result from 8.4d) using the formula in Appendix VIII-1.	2017: P-retention: 7 039 kg			
		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.	2017: Delivered mud: 29 400 kg P in mud: 706 kg			
		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.	P discharged: 17 628 kg P discharged: 10,8 kg/ton biomass produced VR accepted by ASC 05.09.2014			
Standards related to Principle 3						
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
8.5	**Indicator**: If a non-native species is being produced, the species shall have been widely commercially produced in the area prior to the publication of the ASC Salmon Standard **Requirement:** Yes [137] **Applicability:** All Smolt Producers except as noted in [137]	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.	Salmo salar is native to region.	N/A	Salmo salar is native to region.	
		b. Provide the farm with documentary evidence that the non-native species was widely commercially produced in the area before publication of the ASC Salmon Standard. (See definition of area under 3.2.1).	Salmo salar is native to region.			
		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.	Salmo salar is native to region.			
		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.	Salmo salar is native to region.			
		e. Retain evidence as described in 8.5a-d necessary to show compliance of each facility supplying smolt to the farm.	Salmo salar is native to region.			
Footnote	[137] 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	**Indicator**: Maximum number of escapees [138] in the most recent production cycle **Requirement:** 300 fish [139] **Applicability:** All Smolt Producers except as noted in [139]	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.	No incident reported. Verified by Directorate of Fisheries escape incidents overview (www.fidir.no)	Compliant		0
		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.	No incident reported. Verified by Directorate of Fisheries escape incidents overview (www.fidir.no)			
		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 [139]).	ASC statement for Sundsfjord Smolt and Helgeland Smolt signed Tor-Arne Gransjøen 2018-01-26 regarding compliance to criteria 8.2 a, 8.5 a, 8.6 c, 8.12 c, 8.13 b, 8.14 a, 8.15 c, 8.16/8.17 b, 8.18 c, 8.19 a and 8.21 a.			
		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 [139]. 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.	No incident reported. Verified by Directorate of Fisheries escape incidents overview (www.fidir.no)			
Footnote	[138] Farms shall report all escapes; the total aggregated number of escapees per production cycle must be less than 300 fish.					
Footnote	[139] 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 storms) or accidents caused by farms located near high-traffic waterways are not intended to be covered under this exception.					
8.7	**Indicator**: Accuracy [140] of the counting technology or counting method used for calculating the number of fish **Requirement:** ≥98% **Applicability:** 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.	Counting performed at FW site, vaccination numbers used for stocking number at sea net cage. Internal counters FW sites counts at vaccination (count fish by dose of vaccine).	Compliant		98-100%
		B. Review records to verify that accuracy of the smolt supplier's counting technology or counting method is ≥ 98%.	Counting performed at FW site, vaccination numbers used for stocking number at sea net cage. Internal counters FW sites counts at vaccination (count fish by dose of vaccine).			
Footnote	[140] Accuracy shall be determined by the spec sheet for counting machines and through common estimates of error for any hand counts.					
Standards related to Principle 4						
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
8.8	**Indicator**: Evidence of a functioning policy for proper and responsible treatment of non-biological waste from production (e.g., disposal and recycling) **Requirement:** Yes **Applicability:** 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.	Delivered to HAF in 2017: 2x50 liter infectious waste, mixed plastic 3,82 ton, metal 1,6 ton, rest waste 27,94 ton. Delivered 52 000 liter ensilage to ScanBio in 2017, e.g. Scanbio RP-9123, 11000 liter ensilage, 22.02.2017.	Compliant		
8.9	**Indicator**: 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) **Requirement:** Yes, measured in kilojoule/mt fish/production cycle	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.	Records OK	Compliant		28 263 556 kJ/ton biomass
		b. Confirm that the smolt supplier calculates total energy consumption in kilojoules (kj) during the last year.	Total 2017 Energy scope 1: 85 504 400 kJ (diesel) Energy scope 2: 46 179 986 400 kJ (electricity) SUM 46 265 490 800 kJ			
		c. Obtain records to show the smolt supplier calculated the total weight of fish in metric tons (mt) produced during the last year.	Total 2017 Produced biomass: 1 636 931 kg			

	Applicability: All Smolt Producers	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.	Total 2017 Energy efficiency: 28 263 556 kJ/ton biomass			
		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.	Records OK			
8.10	**Indicator**: Records of greenhouse gas (GHG [141]) emissions [142] at the smolt production facility and evidence of an annual GHG assessment (See Appendix V, subsection 1) **Requirement:** Yes **Applicability:** All Smolt Producers	Note: see instructions for Indicator 4.6.2.				
		a. Obtain records of greenhouse gas emissions from the smolt supplier's facility.	Records OK	Compliant		211 707 kg
		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.	Total 2017 Produced biomass: 1 636 931 kg CO2 scope 1: 6 463 kg (from diesel) CO2 scope 2: 205 244 kg (from electricity) CO2 total: 211 707 kg			
		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.	Total 2017 Produced biomass: 651 689 kg CO2 scope 1: 6 463 kg (from diesel) CO2 scope 2: 205 244 kg (from electricity) CO2 total: 211 707 kg			
		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.	CO2 used			
		e. Obtain evidence to show that the smolt supplier has undergone a GHG assessment in compliance with requirements Appendix V-1 at least annually.	Conversion factors Scope 1: 3,17 kg Co2 per kg diesel (The Norwegian emission inventory 2009 SSB, tetthet 0,84 kg/liter (SSB 2008), 36,2 MJ/liter SSB 2008 Scope 2: 0,016 kg Co2 per kWh (NVE 2013), 1kWh equals 3,6 MJ SSB 2008.			
Footnote	[141] For the purposes of this standard, GHGs are defined as the six gases listed in the Kyoto Protocol: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF_6).					
Footnote	[142] GHG emissions must be recorded using recognized methods, standards and records as outlined in Appendix V.					
Standards related to Principle 5						
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
8.11	**Indicator**: Evidence of a fish health management plan, approved by the designated veterinarian, for the identification and monitoring of fish diseases and parasites **Requirement:** Yes **Applicability:** 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.	Health plan for Sundsfjord Smolt and Helgeland Smolt signed Janette Festvåg 2018-01-31. Includes health control, veterinary visits, diseases, preventive measures, disease measures, vaccine, parasites, screening, water quality, destruction, welfare, density, starvation, training, medicines, sedations, notification, etc. Appendix: list of diagnosis, list of treatments, notifiable diseases (list 1, 2 and 3).	Compliant		
		b. Keep documentary evidence to show that the smolt supplier's health plans were approved by the supplier's designated veterinarian.	Health plan for Sundsfjord Smolt and Helgeland Smolt signed Janette Festvåg 2018-01-31.			
8.12	**Indicator**: 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 [143] **Requirement:** 100% **Applicability:** 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.	Health plan for Sundsfjord Smolt and Helgeland Smolt signed Janette Festvåg 2018-01-31. Includes health control, veterinary visits, diseases, preventive measures, disease measures, vaccine, parasites, screening, water quality, destruction, welfare, density, starvation, training, medicines, sedations, notification, etc. Appendix: list of diagnosis, list of treatments, notifiable diseases (list 1, 2 and 3).	Compliant		100 %
		b. Maintain a list of diseases for which effective vaccines exist for the region, developed by the farm veterinarian and supported by scientific evidence.	Health plan for Sundsfjord Smolt and Helgeland Smolt signed Janette Festvåg 2018-01-31. Includes health control, veterinary visits, diseases, preventive measures, disease measures, vaccine, parasites, screening, water quality, destruction, welfare, density, starvation, training, medicines, sedations, notification, etc. Appendix: list of diagnosis, list of treatments, notifiable diseases (list 1, 2 and 3).			
		c. Obtain from the smolt supplier(s) a declaration detailing the vaccines the fish received.	Seen health declarations, e.g. : 2017-06-02 fish from Helgeland Smolt F1-4 to Rensøya N, AquaGen broodstock, Pentium Forte+ vaccine, 200 000 fish á 200 gram, 12 health controls per year, no restriction, no suspected infectious diseases, last health control 2017-06-02. 2017-05-18 fish from Helgeland Smolt F2-6 to Stokkasjøen, AquaGen broodstock, Pentium Forte+ vaccine, 130 000 fish á 270 gram, 12 health controls per year, no restriction, no suspected infectious diseases, last health control 2017-05-15. 2017-07-05 fish from Helgeland Smolt D2-1 to Renga, AquaGen broodstock, Pentium Forte+ vaccine, 198 000 fish á 150 gram, 12 health controls per year, no restriction, no suspected infectious diseases, last health control 2017-07-05. 2017-07-05 fish from Helgeland Smolt D1-1 to Bukkøya, AquaGen broodstock, Pentium Forte+ vaccine, 198 000 fish á 150 gram, 12 health controls per year, no restriction, no suspected infectious diseases, last health control 2017-07-05.			
		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.	100% vaccinated according to national legislation.			
Footnote	[143] 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.					
8.13	**Indicator**: Percentage of smolt groups [144] tested for select diseases of regional concern prior to entering the grow-out phase on farm **Requirement:** 100% **Applicability:** All Smolt Producers	**Instruction to Clients for Indicator 8.13-- Testing of Smolt for Select Diseases** 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 originate in freshwater and are proven or suspected to occur in seawater (and for which seawater fish-to-fish transmission is a concern). The designated veterinarian to the smolt supplier is required to evaluate, based on scientific criteria and publicly available information, which diseases should be tested for. This analysis shall include an evaluation of whether clinical disease or a pathogen carrier state in fresh water is deemed to have a negative impact on the grow-out phase, thereby disqualifying a smolt group from being transferred. The analysis must be available to the CAB upon request. Note: A "smolt group" is defined as a population that shares disease risk, including environment, husbandry, and host factors that might contribute to sharing disease agents for each group.				
		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.	Health plan for Sundsfjord Smolt and Helgeland Smolt signed Janette Festvåg 2018-01-31. Includes health control, veterinary visits, diseases, preventive measures, disease measures, vaccine, parasites, screening, water quality, destruction, welfare, density, starvation, training, medicines, sedations, notification, etc. Appendix: list of diagnosis, list of treatments, notifiable diseases (list 1, 2 and 3).	Compliant		100 %
		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).	Seen health declarations, e.g. : 2017-06-02 fish from Helgeland Smolt F1-4 to Rensøya N, AquaGen broodstock, Pentium Forte+ vaccine, 200 000 fish á 200 gram, 12 health controls per year, no restriction, no suspected infectious diseases, last health control 2017-06-02. 2017-05-18 fish from Helgeland Smolt F2-6 to Stokkasjøen, AquaGen broodstock, Pentium Forte+ vaccine, 130 000 fish á 270 gram, 12 health controls per year, no restriction, no suspected infectious diseases, last health control 2017-05-15. 2017-07-05 fish from Helgeland Smolt D2-1 to Renga, AquaGen broodstock, Pentium Forte+ vaccine, 198 000 fish á 150 gram, 12 health controls per year, no restriction, no suspected infectious diseases, last health control 2017-07-05. 2017-07-05 fish from Helgeland Smolt D1-1 to Bukkøya, AquaGen broodstock, Pentium Forte+ vaccine, 198 000 fish á 150 gram, 12 health controls per year, no restriction, no suspected infectious diseases, last health control 2017-07-05.			

Footnote	[144] 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, which diseases should be tested for. This analysis shall include an evaluation of whether clinical disease or a pathogen carrier state in fresh water is deemed to have a negative impact on the grow-out phase, thereby disqualifying a smolt group from being transferred. A written analysis must be available to the certifier on demand.					
8.14	**Indicator**: 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 **Requirement:** Yes **Applicability:** 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.	Seen FishTalk demonstration: E.g. unit F1-4 delivered 2017-06-02, vaccinated 2017-02-01 with Pentium Forte + (batch 650905) 0,1 ml/dose, sedated with Finquel (batch 16D035/1).	Compliant		
8.15	**Indicator**: Allowance for use of therapeutic treatments that include antibiotics or chemicals that are banned [145] in any of the primary salmon producing or importing countries [146] **Requirement:** Yes **Applicability:** 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 [146].	Seen list of not approved treatments "Liste ikke godkjente legemidler" 2018-01-31. Seen list of approved treatments "Godkjente legemidler Nova Sea", includes product, active substance, withdrawal, MRL, indication, etc.	Compliant		0
		b. Inform smolt supplier that the treatments on the list cannot be used on fish sold to a farm with ASC certification.	ASC statement for Sundsfjord Smolt and Helgeland Smolt signed Tor-Arne Gransjøen 2018-01-26 regarding compliance to criteria 8.2 a, 8.5 a, 8.6 c, 8.12 c, 8.13 b, 8.14 a, 8.15 c, 8.16/8.17 b, 8.18 c, 8.19 a and 8.21 a.			
		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.	No banned treatments used.			
Footnote	[145] "Banned" means proactively prohibited by a government entity because of concerns around the substance.					
Footnote	[146] For purposes of this standard, those countries are Norway, the UK, Canada, Chile, the United States, Japan and France.					
8.16	**Indicator**: Number of treatments of antibiotics over the most recent production cycle **Requirement:** ≤ 3 **Applicability:** All Smolt Producers	a. Obtain from the smolt supplier records of all treatments of antibiotics (see 8.14a).	No antibiotics used. Seen CV with treatments identified.	Compliant		0
		b. Calculate the total number of treatments of antibiotics from their most recent production cycle.	No antibiotics used. Seen CV with treatments identified.			
8.17	**Indicator**: Allowance for use of antibiotics listed as critically important for human medicine by the WHO [147] **Requirement:** None [148] **Applicability:** 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 [147].	No antibiotics used. Seen list of not approved treatments "Liste ikke godkjente legemidler" 2018-01-31. Seen list of approved treatments "Godkjente legemidler Nova Sea", includes product, active substance, withdrawal, MRL, indication, etc.	Compliant		
		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.	ASC statement for Sundsfjord Smolt and Helgeland Smolt signed Tor-Arne Gransjøen 2018-01-26 regarding compliance to criteria 8.2 a, 8.5 a, 8.6 c, 8.12 c, 8.13 b, 8.14 a, 8.15 c, 8.16/8.17 b, 8.18 c, 8.19 a and 8.21 a.			
		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.	No antibiotics used. Seen CV with treatments identified.			
Footnote	[147] The 3rd edition of the WHO list of critically and highly important antimicrobials was released in 2009 and is available at: http://www.who.int/foodborne_disease/resistance/CIA_3.pdf.					
Footnote	[148] 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	**Indicator**: Evidence of compliance [149] with the OIE Aquatic Animal Health Code [150] **Requirement:** Yes **Applicability:** All Smolt Producers	Note: 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).	Link to OIE list in quality system	Compliant		
		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.	ASC statement for Sundsfjord Smolt and Helgeland Smolt signed Tor-Arne Gransjøen 2018-01-26 regarding compliance to criteria 8.2 a, 8.5 a, 8.6 c, 8.12 c, 8.13 b, 8.14 a, 8.15 c, 8.16/8.17 b, 8.18 c, 8.19 a and 8.21 a.			
		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.	Link to OIE list in quality system			
Footnote	[149] 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 of the pathogen).					
Footnote	[150] OIE 2011. Aquatic Animal Health Code. http://www.oie.int/index.php?id=171.					
	Standards related to Principle 6					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
8.19	**Indicator**: Evidence of company-level policies and procedures in line with the labor standards under 6.1 to 6.11 **Requirement:** Yes **Applicability:** 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.	The access to electronic document system of the smolt supplier. The procedures address main requirements of the principle 6.	Compliant		
		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.	The statement of compliance to requirements of ASC standard principle 6.1 - 6.11 and labour laws is available (signed on 2018-01-26).			
	Standards related to Principle 7					
		Compliance Criteria (Required Client Actions):	**Auditor Evaluation (Required CAB Actions):**			
8.20	**Indicator**: Evidence of regular consultation and engagement with community representatives and organizations **Requirement:** Yes **Applicability:** All Smolt Producers	**Instruction to Clients for Indicator 8.20 - Consultation and Engagement with Community Representatives** 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, farms must show how each of their smolt suppliers complies with an equivalent requirement. Farms are obligated to maintain evidence that is sufficient to show their suppliers remain in full compliance. Evidence shall be documentary (e.g. meeting agenda, minutes, report) and will substantiate the following: - the smolt supplier engaged in "regular" consultations with the local community at least twice every year (bi-annually); - the supplier's consultations were effective (e.g. using participatory Social Impact Assessment (pSIA) or similar methods); and - the supplier's consultations included participation by elected representatives from the local community who were asked to contribute to the agenda.				
		a. From each smolt supplier obtain documentary evidence of consultations and engagement with the community.	Only invitation was sent to interested parties on 2018-01-24. NC evidence: No meetings organized. Interview with management.	Minor	No meetings organized. Interview with management. Missing documents. Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted	
		b. Review documentation from 8.20a to verify that the smolt supplier's consultations and community engagement complied with requirements.	Only invitation and agenda available. NC evidence: missing documents.			
8.21	**Indicator**: Evidence of a policy for the presentation, treatment and resolution of complaints by community stakeholders and organizations **Requirement:** Yes **Applicability:** All Smolt Producers	a. Obtain a copy of the smolt supplier's policy for presentation, treatment and resolution of complaints by community stakeholders and organizations.	The procedure of handling of non-conformances is applied for handling complaints.	Compliant		
8.22	**Indicator**: Where relevant, evidence that indigenous groups were consulted as required by relevant local and/or national laws and regulations **Requirement:** Yes **Applicability:** All Smolt Producers	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.	Smolt site is operating in are of rain deer feeding areas. All communications, agreements and limitations were solved in the period for obtaining operation license.	Compliant		
		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.	Smolt site is operating in are of rain deer feeding areas. All communications, agreements and limitations were solved in the period for obtaining operation license.			

8.23	**Indicator**: Where relevant, evidence that the farm has undertaken proactive consultation with indigenous communities **Requirement:** Yes **Applicability:** All Smolt Producers	a. See results of 8.22a (above) to determine whether the requirements of 8.23 apply to the smolt supplier.	Smolt site is operating in are of rain deer feeding areas. All communications, agreements and limitations were solved in the period for obtaining operation license.	Minor	No meetings organized. See NC in 8.20 Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted	
		b. Where relevant, obtain documentary evidence that smolt suppliers undertake proactive consultations with indigenous communities.	The invitation was sent to Sami representatives. No consultation meetings organized. NC evidence: No meetings organized. See NC in 8.20			
ADDITIONAL REQUIREMENTS FOR OPEN (NET-PEN) PRODUCTION OF SMOLT In addition to the requirements above, if the smolt is produced in an open system, evidence shall be provided that the following are met:						
Instruction to Clients for Indicators 8.24 through 8.31 - Requirements for Smolt Produced in Open Systems Client shall provide documentary evidence to the CAB about the production system(s) from which they source smolt. If smolt used by the farm are produced, for part or all of the growth phase from alevin to smolt, in open (net-pen) systems, indicators 8.24 - 8.31 are applicable.						
8.24	**Indicator**: Allowance for producing or holding smolt in net pens in water bodies with native salmonids **Requirement:** None **Applicability:** All Smolt Producers Using Open Systems	a. Obtain a declaration from the farm's smolt supplier stating whether the supplier operates in water bodies with native salmonids.	No net-pens, tanks only.	N/A	No net-pens, tanks only.	
		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.	No net-pens, tanks only.			
		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.	No net-pens, tanks only.			
8.25	**Indicator**: Allowance for producing or holding smolt in net pens in any water body **Requirement:** Yes **Applicability:** All Smolt Producers Using Open Systems	a. Take steps to ensure that the farm does not source smolt that was produced or held in net pens.	No net-pens, tanks only.	N/A	No net-pens, tanks only.	
8.26	**Indicator**: Evidence that carrying capacity (assimilative capacity) of the freshwater body has been established by a reliable entity [151] within the past five years [152] and total biomass in the water body is within the limits established by that study (see Appendix VIII-5 for minimum requirements) **Requirement:** Yes **Applicability:** All Smolt Producers Using Open Systems	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.	No net-pens, tanks only.	N/A	No net-pens, tanks only.	
		b. Identify which entity was responsible for conducting the assessment (8.26a) and obtain evidence for their reliability.	No net-pens, tanks only.			
		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.	No net-pens, tanks only.			
		d. Review information to confirm that the total biomass in the water body is within the limits established in the assessment (8.26a).	No net-pens, tanks only.			
		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.	No net-pens, tanks only.			
Footnote	[151] E.g., Government body or academic institution.					
Footnote	[152] 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	**Indicator**: Maximum baseline total phosphorus concentration of the water body (see Appendix VIII-6) **Requirement:** ≤ 20 µg/l [153] **Applicability:** All Smolt Producers Using Open Systems	**Instruction to Clients for Indicator 8.27 and 8.28 - Monitoring TP and DO in Receiving Water for Open Smolt Systems** 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 program are presented in detail in Appendix VIII-6 and only re-stated briefly here. Monitoring shall sample total phosphorus (TP) and dissolved oxygen (DO). TP is measured in water samples taken from a representative composite sample through the water column to a depth of the bottom of the cages. Samples are submitted to an accredited laboratory for analysis of TP to a method detection limit of < 0.002 mg/L. DO measurements will be taken at 50 centimeters from the bottom sediment. The required sampling regime is as follows: - all stations are identified with GPS coordinates on a map of the farm and/or available satellite imagery; - stations are at the limit of the farm management zone on each side of the farm, roughly 50 meters from the edge of enclosures; - the spatial arrangement of stations is shown in the table in Appendix VIII-6; - sampling is done at least quarterly (1X per 3 months) during periods without ice, including peak biomass; and - samples are also collected at two reference stations located ~ 1-2 km upcurrent and downcurrent from the farm. Note: Some flexibility on the exact location and method of sampling is allowed to avoid smolt suppliers needing to duplicate similar sampling for their local regulatory regime.				
		a. Obtain documentary evidence to show that smolt suppliers conducted water quality monitoring in compliance with the requirements of Appendix VIII-6.	No net-pens, tanks only.	N/A	No net-pens, tanks only.	
		b. Obtain from smolt suppliers a map with GPS coordinates showing the sampling locations.	No net-pens, tanks only.			
		c. Obtain from smolt suppliers the TP monitoring results for the past 12 months and calculate the average value at each sampling station.	No net-pens, tanks only.			
		d. Compare results to the baseline TP concentration established below (see 8.29) or determined by a regulatory body.	No net-pens, tanks only.			
		e. Confirm that the average value for TP over the last 12 months did not exceed 20 ug/l at any of the sampling stations nor at the reference station.	No net-pens, tanks only.			
Footnote	[153] This concentration is equivalent to the upper limit of the Mesotrophic Trophic Status classification as described in Appendix VIII-7.					
8.28	**Indicator**: Minimum percent oxygen saturation of water 50 centimeters above bottom sediment (at all oxygen monitoring locations described in Appendix VIII-6) **Requirement:** ≥ 50% **Applicability:** All Smolt Producers Using Open Systems	Note: see instructions for Indicator 8.27.				
		a. Obtain evidence that smolt supplier conducted water quality monitoring in compliance with the requirements (see 8.27a).	No net-pens, tanks only.	N/A	No net-pens, tanks only.	
		b. Obtain from smolt suppliers the DO monitoring results from all monitoring stations for the past 12 months.	No net-pens, tanks only.			
		c. Review results (8.28b) to confirm that no values were below the minimum percent oxygen saturation.	No net-pens, tanks only.			
8.29	**Indicator**: Trophic status classification of water body remains unchanged from baseline (see Appendix VIII-7) **Requirement:** Yes **Applicability:** All Smolt Producers Using Open Systems	a. Obtain documentary evidence from the supplier stating the trophic status of water body if previously set by a regulator body (if applicable).	No net-pens, tanks only.	N/A	No net-pens, tanks only.	
		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.	No net-pens, tanks only.			
		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.	No net-pens, tanks only.			
		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.	No net-pens, tanks only.			
8.30	**Indicator**: Maximum allowed increase in total phosphorus concentration in lake from baseline (see Appendix VIII-7) **Requirement:** 25% **Applicability:** All Smolt Producers Using Open Systems	a. Determine the baseline value for TP concentration in the water body using results from either 8.29a or 8.29b as applicable.	No net-pens, tanks only.	N/A	No net-pens, tanks only.	
		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).	No net-pens, tanks only.			
		c. Verify that the average observed TP concentration did not increase by more than 25% from baseline TP concentration.	No net-pens, tanks only.			

8.31	**Indicator**: Allowance for use of aeration systems or other technological means to increase oxygen levels in the water body **Requirement:** None **Applicability:** All Smolt Producers Using Open Systems	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.	No net-pens, tanks only.	N/A	No net-pens, tanks only.	
ADDITIONAL REQUIREMENTS FOR SEMI-CLOSED AND CLOSED PRODUCTION OF SMOLTS Additionally, if the smolt is produced in a closed or semi-closed system (flow through or recirculation) that discharges into freshwater, evidence shall be provided that the following are met [157]:						
Instructions to Client for Indicators 8.32-8.35 - Requirement for smolts produced in open systems Client shall provide documentary evidence to the CAB about the production system(s) from which they source smolt. -If smolt used by the farm are not produced, for part or all of the growth phase from alevin to smolt, in open (net-pen) systems, indicators 8.32 - 8.35 are applicable. -If the production system is closed or semi-closed and does not discharge into freshwater, Indicators 8.32 - 8.35 are not applicable to smolt producers as per [154]. For such an exemption, farms must provide documentary evidence to the CAB. Auditors shall fully document their rationale for awarding exemptions in the audit report.						
Footnote	[154] Production systems that don't discharge into fresh water are exempt from these standards.					
8.32	**Indicator**: Water quality monitoring matrix completed and submitted to ASC (see Appendix VIII-2) **Requirement:** Yes [155] **Applicability:** All Smolt Producers Using Semi-Closed or Closed Production Systems	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.	No discharge to freshwater	N/A	No discharge to freshwater	
		b. Obtain water quality monitoring matrix from smolt suppliers and review for completeness.	No discharge to freshwater			
		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.	No discharge to freshwater			
Footnote	[155] See Appendix VI for transparency requirements for 8.32.					
8.33	**Indicator**: Minimum oxygen saturation in the outflow (methodology in Appendix VIII-2) **Requirement:** 60% [156,157] **Applicability:** All Smolt Producers Using Semi-Closed or Closed Production Systems	a. Obtain the water quality monitoring matrix from each smolt supplier (see 8.32b).	No discharge to freshwater	N/A	No discharge to freshwater	
		b. Review the results (8.33a) for percentage dissolved oxygen saturation in the effluent to confirm that no measurements fell below 60% saturation.	No discharge to freshwater			
		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 a least a week demonstrating a minimum 60% saturation at all times (Appendix VIII-2).	No discharge to freshwater			
Footnote	[156] 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.					
Footnote	[157] See Appendix VI for transparency requirements for 8.33.					
8.34	**Indicator**: 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) **Requirement:** Yes **Applicability:** All Smolt Producers Using Semi-Closed or Closed Production Systems	a. Obtain documentation from smolt supplier(s) showing the results of macro-invertebrate surveys.	No discharge to freshwater		No discharge to freshwater	
		b. Review supplier documents (8.34a) to confirm that the surveys followed the prescribed methodology (Appendix VIII-3).	No discharge to freshwater			
		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.	No discharge to freshwater			
8.35	**Indicator**: Evidence of implementation of biosolids (sludge) Best Management Practices (BMPs) (Appendix VIII-4) **Requirement:** Yes **Applicability:** All Smolt Producers Using Semi-Closed or Closed Production Systems	a. Maintain a copy of smolt supplier's biosolids (sludge) management plan and confirm that the plan addresses all requirements in Appendix VIII-2.	No discharge to freshwater		No discharge to freshwater	
		b. Obtain from smolt suppliers a process flow diagram (detailed in Appendix VIII-2) showing how the farm is dealing with biosolids responsibly.	No discharge to freshwater			
		c. Obtain a declaration from smolt supplier stating that no biosolids were discharged into natural water bodies in the past 12 months.	No discharge to freshwater			
		d. Obtain records from smolt suppliers showing monitoring of biosolid (sludge) cleaning maintenance, and disposal as described in Appendix VIII-2.	No discharge to freshwater			

11 Findings

11.1 DO NOT DELETE ANY COLUMN
11.2 Columns B/C/D/E (in black) are automatically populated from the species checklist/audit manual
11.3 Each NC is raised against a standard indicator or a CAR requirement
11.4 Use the "sort" function for presenting the list to your liking (e.g. grading, status, closure deadline, etc.)

11.5 Add new rows as needed
11.6 Adjust the column wide as needed - to show the whole text

NC reference	Indicator	Grade of NC	Description of NC	Evidence	Date of detection	Status	Related VR (#)	Root cause (by client)	Corrective/ preventive actions implemented	Deadline for NC close-out	Evaluation by CAB (including evidence)	Date request for delay received	Justification for delay	Next deadline	Request evaluation by CAB	Date request approved
IA-2018-1	2.1.1	Minor	MOM-C not performed at peak biomass (at >75% peak biomass) last production cycle.	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA	09.02.2018	Open/Accepted		ASC Standard requires ASC MOM C done at top production (>75% top biomass) from previous production cycle for certification. Since the decision to certify our locations (Stokkasjøen, Rensøya, Bukkøy, Renga og Kalvhylla) was taken after the end of the last production cycles this was impossible to do. Also, Kalvhylla is a first generation farm and as such has never had top production. ASC MOM Cs using the eDNA variance request were taken at all 5 farms at the end of 2017 but resulted in non-compliance as none of the farms had achieved top biomass at the time of testing. Planning on which farms should be certified with ASC should be taken up as early as possible, the best time being at least one generation in advance. This will allow for proper planning av ASC MOM C test taking so that the tests can be done under max production. ASC Standard requires ASC MOM C done at top production (>75% top biomass) from previous production cycle for certification. Since the decision to certify our locations (Stokkasjøen, Rensøya, Bukkøy, Renga og Kalvhylla) was taken after the end of the last production cycles this was impossible to do. Also, Kalvhylla is a first generation farm and as such has never had top production. ASC MOM Cs using the eDNA variance request were taken at all 5 farms at the end of 2017 but resulted in non-compliance as none of the farms had achieved top biomass at the time of testing. Planning on which farms should be certified with ASC should be taken up as early as possible, the best time being at least one generation in advance. This will allow for proper planning av ASC MOM C test taking so that the tests can be done under max production.	All 5 farms are scheduled to have ASC MOM C tests under max production. These tests are already ordered from Aqua Kompetanse (environmental testing company) and will take place at the following times: Rensøya (June 2018), Stokkasjøen and Kalvhylla (August 2018), Renga and Bukkøya (November 2018). All testing will be done so that reports are finished by the end of 2018/start of 2019 in compliance with DNV/GLs follow up ASC certification of these 5 farms. Continue long term planning of ASC certification so that environmental testing can be carried out at top biomass at the end of the previous generation. Internal deviation no. A2744. All 5 farms are scheduled to have ASC MOM C tests under max production. These tests are already ordered from Aqua Kompetanse (environmental testing company) and will take place at the following times: Rensøya (June 2018), Stokkasjøen and Kalvhylla (August 2018), Renga and Bukkøya (November 2018). All testing will be done so that reports are finished by the end of 2018/start of 2019 in compliance with DNV/GLs follow up ASC certification of these 5 farms. Continue long term planning of ASC certification so that environmental testing can be carried out at top biomass at the end of the previous generation. Internal deviation no. A2744.	SA1	Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-2	2.1.2	Minor	MOM-C not performed at peak biomass (at >75% peak biomass) last production cycle.	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA	09.02.2018	Open/Accepted		ASC Standard requires ASC MOM C done at top production (>75% top biomass) from previous production cycle for certification. Since the decision to certify our locations (Stokkasjøen, Rensøya, Bukkøy, Renga og Kalvhylla) was taken after the end of the last production cycles this was impossible to do. Also, Kalvhylla is a first generation farm and as such has never had top production. ASC MOM Cs using the eDNA variance request were taken at all 5 farms at the end of 2017 but resulted in non-compliance as none of the farms had achieved top biomass at the time of testing. Planning on which farms should be certified with ASC should be taken up as early as possible, the best time being at least one generation in advance. This will allow for proper planning av ASC MOM C test taking so that the tests can be done under max production.	All 5 farms are scheduled to have ASC MOM C tests under max production. These tests are already ordered from Aqua Kompetanse (environmental testing company) and will take place at the following times: Rensøya (June 2018), Stokkasjøen and Kalvhylla (August 2018), Renga and Bukkøya (November 2018). All testing will be done so that reports are finished by the end of 2018/start of 2019 in compliance with DNV/GLs follow up ASC certification of these 5 farms. Continue long term planning of ASC certification so that environmental testing can be carried out at top biomass at the end of the previous generation. Internal deviation no. A2744.	SA1	Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-3	2.2.1	Minor	One week missing data for dissolved oxygen, not seen written justification.	Nortek "Realfish" continuos logging of oxygen and temperature at 2 sampling stations (3 and 6 meters depth inside cage).	09.02.2018	Open/Accepted		The ASC Standard requires weekly oxygen data for farms to ensure good animal welfare for salmon that are adversely (and even fatally) affected by low DO values. This information is also important as low DO values can be a sign of nutrient saturation and therefor unsustainable production at a farm. We have always measured DO at our farms weekly as it is important information for us for the welfare of our salmon. We previously had a system in place where DO was measured on all the farms twice daily manually by the managers and then registered in our data collection program "Fishtalk." In the past two years we have gradually shifted over to boxes (Nortek oksyboks) that do automatic registering every tenth minute on one cage per farm at two depths inside the cage (3 and 6m) and a reference (3m outside the cage). This information is registered in Nortek own system, "Realfish." Both systems have advantages and disadvantages. The "old system" could lack registration of data because of difficult weather, sickness, human error or other challenges that made it impossible for farm managers to register information one week. The new system where it is automated eliminates all of these issues, but has the possible error of the batteries running out on the box leading to an inability to take measurements.	All information on the ASC locations in the future will be gathered using the automated boxes from Nortek. We have set up alarms on these boxes that will alert the farm managers and the environmental advisor by SMS under a variety of scenarios such as low battery, DO under 70%, etc. We have a plan to upgrade all of the oxygen boxes after their current production cycles with power connectors so as to remove the issue (both with missing measurements and from a waste perspective) of battery power. Ensure that all locations (and especially ASC farms) have Nortek oxygen boxes, that they are calibrated when needed and that alarms are configured correctly to inform if there is an issue with them. Follow company procedure 2938 "Oksygenmålinger." Internal deviation no. A2808. (1 attachement).	SA1	Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-4	2.2.6	Minor	Not seen records of weekly cleaning of boats as stated in "Renholdsplan" 08.03.10. Barge is missing in "Renholdsplan" 08.03.10.	Cleaning log, e.g. January 2018, and cleaning plan "renholdsplan 08.03.10	09.02.2018	Open/Accepted		The cleaning plan and log has expired and the site has therefor not signed on this documentation. This is an non-conformances on our routines.	Corrective: The site startet to use the excisting plan and log for documentation. Preventive: Update of the plan and log will be done during risk assessment fish health in March 2018. There will be made templates that should be used at all sites in Nova Sea. Internal deviation no. 2809. (1 attachement).	SA1	Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-5	2.3.1	Minor	Not seen testing on farm of feed (percentage of fines). Seen test results from supplier Skretting with all samples below 1% fines in feed.	Missing documents.	09.02.2018	Closed		We did not fully initiate the work on fines testing before Q1 this year, 2018. Which means that the first sample results were not comletely ready ready for reporting during the audit.	The work with fines testing at ASC locations are now initiated and the first results can be reviewed in the attached file (dok id 14746 Resultat Støv og Knus). Internal dev nr.: A2746. (3 attachements).	SA1	Jan Petter Kosmo 13.03.2018: Closed					
IA-2018-6	3.1.7	Minor	Maximum 0,28 adult female lice in week 26 in 2016.	Lice data at Barentswatch form January 2016	09.02.2018	Closed		In 2016 the rules for lice control was different, the limit was 0,1 to do some kind of action, but lice levels above 0,1 was not defined as an overrun like 0,2 was in 2017.	Corrective: In week 18 was all the cages at Renga (11 cages) treated with good effect that lastet to week 26. In week 26 there were fish left in 2 cages waiting for slaughter. Preventive: Continously monitoring lice levels and perform necessary actions. Internal deviation no. A2783.	SA1	Jan Petter Kosmo 13.03.2018: Closed					
IA-2018-7	4.2.1	Minor	Not seen FFDRm submitted to ASC.	Feed record 2015G per 06.02.2018. Email to ASC 09.02.2018	09.02.2018	Closed		Client was not aware that FFDRm should be sent to ASC pre-audit.	FFDRm is now sent to ASC. CAB was copied on the e-mail sent to ASC (05.03.2018). Internal dev nr.: A2747. (2 attachements).	SA1	Jan Petter Kosmo 13.03.2018: Closed					
IA-2018-8	4.2.2	Minor	Not seen FFDRo submitted to ASC.	Feed record 2015G per 06.02.2018. Email to ASC 09.02.2018	09.02.2018	Closed		Client was not aware that FFDRo should be sent to ASC pre-audit.	FFDRo is now sent to ASC. CAB was copied on the e-mail sent to ASC (05.03.2018). Internal dev nr: A2748. (2 attachements).	SA1	Jan Petter Kosmo 13.03.2018: Closed					
IA-2018-9	4.3.2	Minor	Not seen FishSource score of Sprat. Not seen independent assessment of sprat.	List of fish products used as feed ingredients in "2017 marine raw material mass balance calculation Skretting Norway": Blue whiting (NE Atlantic) MSC certified, Herring, Mackerel, Norway Pout, Sandeel, Sardine, Sprat, Peruvian Anchoveta, Capelin (Icelandic).	09.02.2018	Closed		Client does not agree that Sprat calculations are necessary since this raw material is not longer in use by the feed supplier and is lister non-compliant.	Updated list of mass balance calculations is attached. Internal dev nr.: A2750. (1 attachement).	SA1	Jan Petter Kosmo 13.03.2018: Closed					
IA-2018-10	4.4.3	Minor	Not seen confirmation that the farm has informed ASC whether feeds containing transgenic ingredients are use on farm.	Missing documents.	09.02.2018	Closed		Client was not aware that this information should have been sent to ASC pre-audit.	Confirmation on non-transgenic ingredients is sent to ASC (05.03.2018), CAB was copied on the e-mail. Internal dev nr.: A2751. (3 attachements).	SA1	Jan Petter Kosmo 13.03.2018: Closed					
IA-2018-11	4.7.1	Major	Not seen farm policy and practice not allowing heavy cleaning for copper-treated nets in situ.	Missing documents.	09.02.2018	Closed		Since this is initial ASC audit use and cleaning of copper-treated nets has not been forbidden. Copper-treatement has only been used on smolt nets to aviode cleaning and because of lack of cleaning boats.	Corrective: The nets are changed to untreated on the ASC sites. Preventive: Updated the procedure: "Vaskebåt" (Cleaning boat). From 2018 there will not be used kopper-treated nets for smolt. The cleaning capacity will be increased with one more boat in juni 2018. Internal deviation no. A2752. (1 attachement).	08.05.2018	Jan Petter Kosmo 13.03.2018: Closed					
IA-2018-12	4.7.3	Minor	MOM-C not performed at peak biomass (at >75% peak biomass) last production cycle.	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA	09.02.2018	Open/Accepted		ASC Standard requires ASC MOM C done at top production (>75% top biomass) from previous production cycle for certification. Since the decision to certify our locations (Stokkasjøen, Rensøya, Bukkøy, Renga og Kalvhylla) was taken after the end of the last production cycles this was impossible to do. Also, Kalvhylla is a first generation farm and as such has never had top production. ASC MOM Cs using the eDNA variance request were taken at all 5 farms at the end of 2017 but resulted in non-compliance as none of the farms had achieved top biomass at the time of testing. Planning on which farms should be certified with ASC should be taken up as early as possible, the best time being at least one generation in advance. This will allow for proper planning av ASC MOM C test taking so that the tests can be done under max production.	All 5 farms are scheduled to have ASC MOM C tests under max production. These tests are already ordered from Aqua Kompetanse (environmental testing company) and will take place at the following times: Rensøya (June 2018), Stokkasjøen and Kalvhylla (August 2018), Renga and Bukkøya (November 2018). All testing will be done so that reports are finished by the end of 2018/start of 2019 in compliance with DNV/GLs follow up ASC certification of these 5 farms. Continue long term planning of ASC certification so that environmental testing can be carried out at top biomass at the end of the previous generation. Internal deviation no. A2744.	SA1	Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-13	4.7.4	Minor	Copper level are >34 mg Cu/kg dry sediment: Stations outside AZE: ASC 3 (43,7 mg Cu/kg) and ASC 4 (37,1 mg Cu/kg)	ASC survey by AquaKompetanse October 2017 (field work 01.11.2017), report 279-11-17C RENGA	09.02.2018	Open/Accepted		High copper levels under farms are most commonly the result of copper-treated nets that leach copper into the environment over time or because of the washing of the nets in the sea. NS9410:2016 is used as the standard for sediment test-taking under salmon farms in Norway and requires a copper test in the "near station" closest to the farm. Previous MOM C tests (the most recent from 2016) done at Renga have always shown copper levels that were registered as "very good" making these negative measurements (albeit not very negative, quite close to the limit of 34 mg/kg at both stations) a surprise for us. We have only used copper nets with smolt this generation and do not wash them in the sea.	We do not use copper-treated nets post smolt, and we plan on shifting over to new anti-foulent treatments like Eco Greenline that use no copper whatsoever. Seeing as how copper was high across all stations at Renga we plan on taking extra copper stations during the max production MOM C in November 2018 to try to better assess background copper levels around this farm. Do not use copper-treated nets, do not wash copper-treated nets in the ocean. Internal deviation no. A2810.	SA1	Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-14	5.1.3	Minor	Not seen documentation of delivery of ensilage after 2014.	Missing documentation.	09.02.2018	Closed		The company who handled the ensilage in this periode (Scanbio) changed their webpage during the fallowing periode for Bukkøy. During the same periode Nova Sea also changed ensilage company from Scanbio to Hordafor. The site manager could not log into webpage and show the documentation during the audit because Scanbio had changed their webpage.	Corrective: Contacted Scanbio and got new log in information and downloaded the documentation. Preventive: Nova Sea are now using Hordafor and they deliver the documentation on paper. Site manager have this stored at the site. Internal deviation no. A2811. (4 attachements).	SA1	Jan Petter Kosmo 13.03.2018: Closed					
IA-2018-15	5.2.2	Minor	Not seen list of antibiotics and treatments that are banned in any of the primary salmon producing or importing countries.	Missing documentation.	09.02.2018	Closed		This is a new requirement through the ASC standard and we did therefore not had this documentation on the initial audit.	Corrective: Designing procedure ID14826 "Forbudte legemidler og stoffer i animalske varer". Preventive: Regulary review of the procedure. Internal deviation no. A2753. (1 attachement).	SA1	Jan Petter Kosmo 13.03.2018: Closed					
IA-2018-16	5.2.5	Minor	Calculations verified. PTI >13 on 2015G. 2017G: PTI 0,2 2015G: PTI 29,1	Calculations seen during audit.	09.02.2018	Closed		PTI for farms must be under 13. This was previously not the case at Renga where a 15G PTI of 29,1 was achieved. A PTI over 13 according to the ASC standard is indicative of more medicinal treatments than is necessary leading to an increased burden on the environment around farms, possible consequences for other marine life and resistance in sea lice. The sea lice dilemma requires treating the salmon to avoid injuries to them which can result in sickness because of open sores and stress and to achieve compliance with the food safety authorities which require weekly counts of sea lice levels with set limits of 0,5 mature females per fish (0,2 during the sensitive periods of week 21-26). Nova Sea shifted its focus from medicinal treatments over to mechanical treatments as soon as mechanical options became available. These began in 2015 but because of fleet capacity were not fully utilized until the latter half of 2016. PTI results for the second half of 2016 and all of 2017 show the positive development in this area: The average PTI for all of Nova Sea was 1,13 for 2016 and 0,14 for 2017.	Nova Sea will continue to expand its fleet and use of mechanical treatments for lice in the future. We have a goal for 2018 for a PTI of 0 for all locations. If medicinal treatments must be used as a last option, an avoidance of "high PTI" treatments (like chitin inhibitors, combo-treatments or repeated treatments with the same medicine in a generation) should be of the highest priority. Proper planning and utilization of fleet and mechanical treatment resources to ensure that we can treat salmon without the use of medicine (or with as little as possible) in the future. Goals set by the company like the one for 2018 of 0 PTI are encouraging in this regard. Internal deviation no. A2812.	SA1	Jan Petter Kosmo 13.03.2018: Closed					
IA-2018-17	6.1.1	Minor	There are not agreed rules for TU representative to have access to TU members in the workplace at reasonable times on the premises. No agreement to represent all workers at certified farms for social questions in principle 6.	In interview TU representative states, that he has insufficient information about activities in HR (hiring, dismissing, discrimination handling, conflict/grievance solving etc.) to do good service for workers. The time for meeting and communicating the workers is not properly allocated, as no dedicated procedure for replacing TU representative at his direct job is defined.	09.02.2018	Open/Accepted		TU representative is elected by the employees. Nova Sea has not seen it necessary to have agreements on how the TU representative job should be carried out.	Corrective: The 9th of March there will be a meeting between the TU representatives and the management where the aim is to set conditions for how the TU representatives work should be carried out. Preventive: The agreement mentioned above. Internal deviation no. A2754.	SA1	Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted					

IA-2018-18	6.4.1	Minor	No dedicated non-discrimination training was provided for managers and employees.	Interview with management. Training documents and missing evidences of non-discrimination training.	09.02.2018	Closed		No focus on this issue and lack of resources.	Corrective: Non-discrimination course has now been performed at the site coordinated with safety inspection. Certificate of the training is stored at the site and in the HR-department. Preventive: Non-discrimination training will be a part of the annually health and safety training. Internal deviation no. A2755. (2 attachements).	SA1	Darius Pamakstys 11.03.2018: Closed					
IA-2018-19	6.5.1	Minor	No clear system for sites to define emergency response procedures/plans. No safety drills at site were organized.	Missing documents. Interview with management and employees revealed limited knowledge of emergency procedures.	09.02.2018	Open/Accepted		Not enough awareness of local adjustment, as alarm and emergency telephone numbers are nationwide. Low priority of safety drills at site.	Corrective: Plan for local safety training at site at 25.04.18. Evaluation of the training and correction/adjustment of site spesific emergency plan. Preventive: Annual training will be stipulated in the health and safety plan for each year. Internal deviation no. A2757.	SA1	Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-20	6.5.4	Minor	No root cause analysis applied for non-conformances.	The records in management system are missing for root cause analysis results.	09.02.2018	Closed		The quality management system has not had root cause analysis as an option.	Corrective: A guide for how to perform a root cause analysis was sent to all workers in Nova Sea at 26.02.2018. Preventive: During the non-conformances meetings at industry and seaproduction the focus will be on the root cause analysis. The quality department are leading this meetings. Internal deviation no. A2759. (2 attachements).	SA1	Darius Pamakstys 08.04.2018: Closed					
IA-2018-21	6.5.6	Minor	No statement that diving company conform to relevant criteria available.	No statement available.	09.02.2018	Open/Accepted		This is a new requirement through the ASC standard and we did therefore not had this documentation on the initial audit.	Corrective: Signing of an agreement with the diving company. Preventive: Updating of procedure "Use of diving services", including that the site managers should control the divers certificat before diving at the site. Internal deviation no. A2760. (2 attachements).	SA1	Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-22	6.6.2	Minor	No basic needs wage calculation is available.	No evidences of employer and worker representatives cooperation to assess basic needs wages. Missing basic needs wage calculation.	09.02.2018	Closed		The employees are covered by a tariff agreement that ensures that wages are above basic needs wage. Nova Sea has not considered this calculations as necessary.	Corrective: The calculations are done in collaboration with the employees representative, and signed. Preventive: The validity of the calculations is set to 2 years and will then be revised. Internal deviation no. A2761. (1 attachement).	SA1	Darius Pamakstys 08.04.2018: Closed					
IA-2018-23	6.6.3	Minor	Job contracts have no clear reference to benefits and support applied.	Job contracts are missing the reference to documents with defined benefits and support.	09.02.2018	Open/Accepted		Nova Sea has not thought on this before, it is an improvement of the contract.	Corrective: Update of contracts for employees. Preventive: Update of the contract template for future appointments. Internal deviation no. A2762. (1 attachement).	SA1	Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-24	6.7.2	Minor	No defined policy to ensure that companies contracted to provide supplies or services have socially responsible practices and policies. The criteria for evaluation of suppliers and contractors against social accountability principles are not clearly defined to set threshold requirements for supplier and contractor to be approved.	Missing documents and records, Interview with management. Very few records of communications with suppliers and subcontractors that relate to compliance with 6.7.2 are maintained.	09.02.2018	Open/Accepted		This is a new requirement through the ASC standard and we did therefore not had this documentation on the initial audit.	Corrective Update of procedures and routines. Preventive: We define subcontractors as suppliers of services that is in contact with our fish. We will perform an audit of all subcontractors annually which will include important points from princip 6 in the ASC standard. Nova Sea will make an assesment of the answears given by the subcontractor and thereby approve or not approve the subcontractor. All other suppliers have to fill out a supplier form where they state that they have and comply with a policy for good social practice. They will not be approved by Nova Sea if they answear "no" to this question. Internal deviation no. A2763. (3 attachments).	SA1	Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-25	6.8.1	Minor	The channels for delivering of Anonymous grievances are not stated in the procedure of whistle blowing.	The whistle blowing policy is not fully developed to provide conflict resolution in a confidential manner.	09.02.2018	Closed		This was missing in our system.	Corrective: Update of the procedure for whistle blowing. Preventive: Keep the procedure updated. Internal deviation no. A2764. (1 attachement).	SA1	Darius Pamakstys 08.04.2018: Closed					
IA-2018-26	7.1.1	Minor	No consultation meetings with local community took place.	Only invitation was sent to interested parties on 2018-01-24. No information available. Missing documents.	09.02.2018	Open/Accepted		ASC requires that community meetings with local interest groups and the community at large around farms and smolt facilities are held bi-annually. At the time of inspection by DNV/GL in 2018 meetings had been planned and invitations were sent out to the local interest groups, but no meetings had been held. This resulted in non-compliance. In addition, the agenda that was sent out to the interest groups failed to mention that we would take up possible health risks associated with the different medicinal treatments that can be used at our farms.	This was a misunderstanding on our part. We thought that the meetings had to be planned, but not carried out by by the time of the initial inspection. We were under the assumption from our interpretation of the standard that these meetings didn't need to be held until later in the year. We now know after having met with DNV/GL that this was not a correct interpretation of the standard and we fully understand the non-compliance on this point. Agendas were previously sent out to all the interest groups but a new agenda will be sent out with a final date (planned for week 18) which will include as a point "possible health risks associated with medicinal treatments." in accordance with ASC/ DNV/GL the second "meeting" to be held in 2018 will actually be letter correspondence, where all the interest groups will receive a written request from us for complaints/comments/issues that we can then handle accordingly and within an appropriate time. In the future, these meetings will be held annually (with an annual letter correspondence to comply with the "bi-annual" requirement) before DNV/GL arrives for certification. For future ASC locations that we wish to certify, these meetings will be planned and carried out previous to DNV/GLs visit for certification in accordance with the ASC salmon standard. Internal deviation no. A2766.	SA1	Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-27	7.1.2	Minor	The procedure is developed for presentation, treatment and resolution of complaints lodged by stakeholders is not defined.	Missing documents.	09.02.2018	Closed		Complaints to the company have not taken place through the website prior to ASC certification, and were principally concerned with application processes when applying for new farms or the expansion of biomass at current farms. These were handled previously through the biology department, most often by the Environmental Controller (who also acts as a government contact and is responsible for applications related to the farms).	Corrective: Procedure "Behandling av klager fra interessegrupper" (attached) has been created to include concrete information about the process by which complaints will be handled at Nova Sea. Preventive: Keep the procedure updated. Internal deviation no. 2767. (1 attachement).	SA1	Darius Pamakstys 08.04.2018: Closed					
IA-2018-28	7.1.3	Minor	No consultation meetings with local community took place.	No consultation meeting. See NC in 7.1.1	09.02.2018	Open/Accepted		ASC requires that community meetings with local interest groups and the community at large around farms and smolt facilities are held bi-annually. At the time of inspection by DNV/GL in 2018 meetings had been planned and invitations were sent out to the local interest groups, but no meetings had been held. This resulted in non-compliance. In addition, the agenda that was sent out to the interest groups failed to mention that we would take up possible health risks associated with the different medicinal treatments that can be used at our farms.	This was a misunderstanding on our part. We thought that the meetings had to be planned, but not carried out by by the time of the initial inspection. We were under the assumption from our interpretation of the standard that these meetings didn't need to be held until later in the year. We now know after having met with DNV/GL that this was not a correct interpretation of the standard and we fully understand the non-compliance on this point. Agendas were previously sent out to all the interest groups but a new agenda will be sent out with a final date (planned for week 18) which will include as a point "possible health risks associated with medicinal treatments." In accordance with ASC/ DNV/GL the second "meeting" to be held in 2018 will actually be letter correspondence, where all the interest groups will receive a written request from us for complaints/comments/issues that we can then handle accordingly and within an appropriate time. In the future, these meetings will be held annually (with an annual letter correspondence to comply with the "bi-annual" requirement) before DNV/GL arrives for certification. For future ASC locations that we wish to certify, these meetings will be planned and carried out previous to DNV/GLs visit for certification in accordance with the ASC salmon standard. Internal deviation no. A2766.	SA1	Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-29	8.1	Minor	Discharge permit states cleansing of discharge water, not seen evidence of fully functioning cleansing.	Discharge license from Fylkesmannen i Nordland 25.11.2013 for 8 million smolt/2000 ton feed.	09.02.2018	Open/Accepted		A new system for cleaning of discharge water was installed in 2016. Is has been alot of challenges with this new system and Helgeland Smolt has worked together with the supplier of the system to solve this challenges. They did not find a good solution of the problems and Helgeland Smolt decided to find a new supplier in may 2017.	Corrective: The capasity of the system is expected to be on place when the new condenser will be installed in May 2018. Preventive: New condenser. Internal deviation no. A2772. (1 attachment).	SA1	Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-30	8.3	Minor	Not seen MOM-B last 4 years as stated in discharge permit (production started in 2016).	Missing documentation.	09.02.2018	Open/Accepted		Misunderstandig of the discharge permit, Helgeland Smolt thought that the requirement was based on 4 years after the production started, which was in 2016.	Corrective: New MOM-B is ordered (Argus Milje). Preventive: Written appliction for changes of the terms in the discharge permit so that new sampling should be done 4 years after the production started and not 4 years after last MOM-B. Internal deviation no. A2773. (2 attachments).	SA1	Jan Petter Kosmo 13.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-31	8.20	Minor	No consultation meetings with local community took place.	No meetings organized. Interview with management. Missing documents.	09.02.2018	Open/Accepted		Did not know that this meetings should be carried out before the initial audit.	Corrective: Should be carried out in cooperation with Nova Sea in week 18 2018. Preventive: Carried out on a regular basis. Internal deviation no. A2774.	SA1	Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted					
IA-2018-32	8.23	Minor	No consultation meetings with local community took place.	No meetings organized. See NC in 8.20	09.02.2018	Open/Accepted		Did not know that this meetings should be carried out before the initial audit.	Corrective: Should be carried out in cooperation with Nova Sea in week 18 2018. Preventive: Carried out on a regular basis. Internal deviation no. A2774.	SA1	Darius Pamakstys 11.03.2018: Root cause, corrective and preventive actions Accepted					

ASC Audit Report - Traceability

10	Traceability Factor	Description of risk factor if present.	Describe any traceability, segregation, or other systems in place to manage the risk.
10.1	The possibility of mixing or substitution of certified and non-certified product, including product of the same or similar appearance or species, produced within the same operation.		No risk of substitution of certified with non-certified product within the unit of certification as all salmon in the farm is within the scope of the ASC Salmon Standard audit.
10.2	The possibility of mixing or substitution of certified and non-certified product, including product of the same or similar appearance or species, present during production, harvest, transport, storage, or processing activities.		No risk of substitution of certified with non-certified product within the unit of certification as all salmon in the farm is within the scope of the ASC Salmon Standard audit. Transports are always identifiable on production unit level (cage). Only transport from one seasite to the slaughterhouse at the time.
10.3	The possibility of subcontractors being used to handle, transport, store, or process certified products.		Wellboat services are subcontracted. Approved wellboat companies are used during transhipments of salmon between the site and holding cages/harvest plant. Biosecurity legislation and implemented QMS management system and procedures at the site and within the company prevent the wellboats from visiting other salmon farms/sites in the same assignment. The possibility for mixture of salmon in holding cages from salmon from other farm/sites is also prevented by biosecurity legislation and implemented QMS management system and procedures at the site and within the harvesting/processing plant used. There are slaughtered fish from only one holding cage at a time in the harvest/processing plant Transports are always identifiable on production unit level (cage). All information is kept in electronic system FishTalk and in hard copies.
10.4	Any other opportunities where certified product could potentially be mixed, substituted, or mislabelled with non-certified product before the point where product enters the chain of custody.		No other possibility for mixing products.

10.5	Detail description of the flow of certified product within the operation and the associated traceability system which allows product to be traced from final sale back to the unit of certification	The company has a robust and well implemented quality system, which covers the whole organization from smolts to sales. All stages of fish live cycle within the scope of this certification standard are traceable. Documents describe a satisfactory control with incoming products, from freshwater sites and external suppliers, and corresponding documentation of production sites and suppliers. Digital information is handled in FishTalk/Landax for on-growing phase in seawater and from freshwater stage.

10.6 Traceability Determination:

10.6.1 The traceability and segregation systems in the operation are sufficient to ensure all products identified and sold as certified by the operation originate from the unit of certification, or	Yes
10.6.2 The traceability and segregation systems are not sufficient and a separate chain of custody certification is required for the operation before products can be sold as ASC-certified or can be eligible to carry the ASC logo.	
10.6.3 The point from which chain of custody is required to begin.	Products are authorized to enter an ASC Chain of Custody certification at the point where the fish is moved from the wellboat/live fish carrier and delivered direct to the harvest/processing plant. From this point the ASC Salmon Standard certificate stops and the ASC CoC certificate takes over. The harvest plants is in process of ASC CoC certification (ref. to www.asc-aqua.org where updated information can be found): Nova Sea AS, certificate code ASC-C-01705 .
10.6.4 Is a separate chain of custody certificate required for the producer?	No, not for the unit of certification.

ASC Audit Report - Closing

12 Evaluation Results

12.1 A report of the results of the audit of the operation against the specific elements in the standard and guidance documents.	The evaluation of the company`s compliance to the requirements in the ASC Salmon Standard and all references and findings is described in detail in the report section II Audit template and section IV Audit Report Closing. The principles where full compliance was found: 1. For the rest of the principles, 2, 3, 4, 5, 6, 7 and 8, full compliance was not found, although most of these were mainly compliant. The audit hence resulted in 31 Minor category Non-Conformities and 1 Major category Non-Conformities. Reference is made to ASC Farm certification and Accreditation Requirement 17.4.2 and 17.4.3. As the fish were not at harvest size during the audit, harvest was not overseen by the auditor. Harvest is performed by the company. VR used during audit: VR nr.39 approved 15.09.2014 by ASC on phosphorus release from smolt producer. Rationale for use of VR 39 during audit is that as for accepted VR 39 the smolt producers effluent is seawater not freshwater. VR nr. 179 approved 24.08.16 by ASC for translation of reports into local language (Norwegian). Reports will be accepted in English. VR nr. 97 approved 20.08.2015 by ASC for calculation of PTI based on biomass. VR nr. 98 approved 20.08.2015 by ASC for calculation of PTI based on number of pens treated. If necessary stakeholders can get in touch with DNVGL and we can translate necessary information. VR list and updated documentation for VR can be found on the ASC website: http://www.asc-aqua.org/
12.2 A clear statement on whether or not the audited unit of certification has the capability to consistently meet the objectives of the relevant standard(s).	Renga site capability to consistently meet the objectives of the ASC Salmon Standard is expected for the future. The unit of certification had Major and Minor NCs. Corrective actions for closing of Major Non conformities are presented and approved by DNV GL.Corrective actions for closing or acceptance of Minor Non conformities, subject to corrective action plan for the non conformities are presented and approved by DNV GL.
123 In cases where Biodiversity Environmental Impact Assessment (BEIA) or Participatory Social Impact Assessment (PSIA) is available, it shall be added in full to the audit report. IF these documents are not in English, then a synopsis in English shall be added to the report as well.	Not applicable.

13 Decision

13.1 Has a certificate been issued? (yes/no)	**Yes.** **Compliant.** Considered compliant and recommended certified now after satisfactory closure of Major non-conformances, and satisfactory closure and a corrective action plan for Minor non-conformances is implemented by the client and approved by DNV GL. • **Final certification decision has been be taken in this final report after completion of stakeholder period.** • **Final certification decision has been taken by DNV GL and the applicant is certified and can claim ASC Aquaculture certification status.**
13.2 The Eligibility Date (if applicable)	The Eligiblity Date is the date of certification. Certificate validity 13.04.2018 - 13.04.2021.
13,3 Is a separate CoC certificate required for the producer? (yes/no)	No, not for the unit of certification.
13.4 If a certificate has been issued this	
13.4.1 The date of issue and date of expiry of the certificate.	Certificate validity 13.04.2018 - 13.04.2021.
13.4.2 The scope of the certificate	Production of Atlantic salmon (Salmo salar).
13.4.3 Instructions to stakeholders that any complaints or objections to the CAB decision are to be subject to the CAB's complaints procedure. This section shall include information on where to review the procedure and where further information on complaints can be found.	Stakeholders can contact DNV GL and/or Lead Auditor as specified in report section I Audit report opening, contact information is also available in notifications received as stakeholder from DNV GL. Information and documents related to contacting or complaints to DNV GL is available at www.dnvgl.com

14 Surveillance

14.1 Next planned Surveillance	
14.1.1 Planned date	2019 - Specific date not decided at this stage.
14.1.2 Planned site	Renga
14.2 Next audit type	
14.2.1 Surveillance 1	SA1 - 2019
14.2.2 Surveillance 2	
14.2.3 Re-certification	
14.2.4 Other (specify type)	

ASC – Aquaculture Stewardship Council
Request for interpretation or variance

I CAB Request

1.1 NAME OF CAB	1.2 DATE OF SUBMISSION	1.3 CAB CONTACT PERSON	1.4 EMAIL ADDRESS OF CAB CONTACT PERSON
DNV GL - Business Assurance	05.09.2014	Kim-Andre Karlsen / Guro Meldre Pedersen	kim.andre.karlsen@dnvgl.com guro.meldre.pedersen@dnvgl.com

1.5 ASC DOCUMENT REFERENCE

ASC Salmon Standard Version 1.0 June 2012.
Principle 8, Criterion 8.4 Maximum total amount of phosphorus.

1.6 BACKGROUND (PROVIDE FULL EXPLANATION OF THE ISSUE)

Requirement 8.4 of the ASC salmon standard sets a limit to how much phosphorus is discharged from the farm per unit smolt produced. The requirement is set at 5 kg/mt for the first three years from date of publication of the ASC Salmon Standard, dropping to 4 kg/mt thereafter. This requirement falls under section 8 (Requirements for smolt production) that contains the full suite of principles, criteria, indicators and requirements for responsible salmon farming at freshwater smolt sites. Under the rationale for the development of this requirement it is stated that nutrient discharge into the freshwater environment is one topic of concern when evaluating the impacts of smolt production. Phosphorus is used as a reference for water quality in the freshwater environment.

8.4 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)	5 kg/mt of fish produced over a 12-month period; within three years of publication of the ASC Salmon Standard, 4 kg/mt of fish produced over a 12-month period

Several sites across Norway have been audited according to the ASC salmon standard. Compliance with requirement 8.4 has not been possible and minor NC has been identified as P levels in wastewater are above the limit of 5 kg/mt. In this VR we argue that such limit should be applicable only when wastewater from smolt facilities is discharged into a freshwater environment but not when wastewater is discharged directly into a marine environment which is the case of smolt facilities in Norway. Phosphorus has been clearly identified as a key growth-limiting nutrient in freshwater environment (Schindler 1977, OECD 1982) and therefore limiting its release into freshwater is an important action to limit eutrophication. The responses of freshwater environments to nutrient enrichment are well documented for most regions in the world allowing the possibility to set limits to phosphorus release. However, knowledge on marine coastal eutrophication is limited and the controls of eutrophication in freshwater and coastal marine ecosystems have been recognized as different (Smith, 2003). In fact, in coastal marine environments, nitrogen (N) has been recognized as the major cause of eutrophication (Howarth and Marino, 2006).
As noted on page 23 of the ASC salmon standard the SAD technical group has recognized that the effects of nutrient loading into costal environments still need to be established and therefore no specific limits on N or P release into the marine environment have been set: "The SAD technical working group on nutrient loading identified the potential link between nutrients around salmon farms and harmful algal blooms as one that had yet to be established but around which there remained some uncertainty and for which there was an intuitive concern around the effect of the cumulative anthropogenic nutrient load into coastal waters. The group noted a shortage of field studies to validate hypotheses from lab-based work."

Howarth RW and Marino R (2006). Nitrogen as the limiting nutrient for eutrophication in coastal marine ecosystems: evolving views over three decades. Limnol. Oceanogr., 51, 364–376

OECD (1982): Eutrophication of waters: Monitoring, assessment and control. Organisation for Economic and Cooperative Development, Paris, France

Schindler DW (1977): Evolution of phosphorus limitation in lakes. Science 195, 260-262

ASC – Aquaculture Stewardship Council
Request for interpretation or variance

1.7 RECOMMENDED ACTION / DECISION
DNV GL recommends that ASC approves this VR request for the upcoming ASC Audit at Marine Harvest Site Skipningsdalen 22.09 - 26.09.2014 in Norway, and to apply the limits set under requirement 8.4 to smolt facilities that discharge wastewater into freshwater only. .

II ASC Determination

2.1 STATUS	**2.2 DATE OF THE ASC DETERMINATION**
[X] Closed	15 September 2014
2.3 ASC DETERMINATION ON VARIANCE REQUEST	
Approved	
2.4 ASC INTERPRETATION	
Although the ASC has a different view on the availability of studies on the subject, we do agree with the fact that in the current version of the ASC Salmon standard discharging in a marine environment is not addressed in a binding manner. FYI: The ASC Standards will be reviewed periodically (at a minimum once per 5 years) and the criteria/requirement for this issue may change.	

FORM 1 - Request for Interpretation or Variance - ASC

This form is for the submission of requests by CABs to the ASC to request interpretations of the ASC normative requirements and/or requests for variance from specific normative requirements.

I - CAB Request

1.1 Name of CAB	1.2 Date of Submission	1.3 CAB Contact Person	1.4 Email Address of CAB Contact Person
Food Certification Scotland International	17/07/15	Matthew James	Matthew.James@acoura.com

1.5 ASC Document Reference

Criteria 5.2.5

Indicator: Maximum farm level cumulative parasiticide treatment index (PTI) score as calculated according to the formula in Appendix VII

Requirement: PTI score ≤ 13

Indicator Compliance Criteria

1.6 Background (Provide full explanation of the issue)

The PTI score is aimed at reducing the amount of sealice medication used on a site in order to keep well within safe limits that will not harm the environment and sensitive wild species.

With reference to the in-feed therapeutant emamectin benzoate (EMBZ), within the Scottish regulatory framework, SEPA have modelled a Maximum Treatment Quantity (MTQ) allowed within a 7 day period for each site. This defines a single treatment of a whole site at maximum standing biomass using a standard recommended dose of EMBZ.

Therefore if 1x MTQ represents a single standard dose of a whole site at full biomass, it follows that an amount of product used to treat a site at half biomass should count 50% of this, and a simple ratio of Treatment Quantity (TQ) : MTQ should be used to determine a fraction of a treatment. This encourages farms to use Slice at times when the biomass on a site is lower, and therefore discharge less therapeutant into the environment.

Calculation Example from real treatment data: Slice used shortly after smolt input with a TQ of 12% of MTQ and again later in the cycle with a TQ of 23% of MTQ and for a 3rd time at 88% of MTQ. Total amount of EMBZ discharged = 1.0766kg

Proposed PTI calculation:

4 x 0.8 x 1 x 1 x 0.12 = 0.384

4 x 0.8 x 2 x 1 x 0.23 = 1.472

4 x 0.8 x 2 x 1 x 0.88 = 5.2

Total = 7.056

This is far more desirable than using the product in the second half of the cycle when the farm will already consistently be at maximum biomass and a full MTQ amount will be used on each occasion, discharging 2.625kg of EMBZ during the cycle, more than double the amount in the example above.

PTI calculation:

4 x 0.8 x 1 x 1 x 1 = 3.2

4 x 0.8 x 2 x 1 x 1 = 6.4

4 x 0.8 x 2 x 1 x 1 = 6.4

Total = 16

Therefore using a fraction of the PTI element for each treatment at lower biomasses encourages more efficient use of the product. It is also well known that good sealice control is required especially at the outset of a cycle to prevent a significant population of sealice from gaining momentum. Slice is certainly most effective when used to prevent a settlement from becoming established in the first place and the PTI scoring should reward a farm for using the product early and penalise a farm for using it later.
1.7 Recommended Action/Decision
To use TQ:MTQ to determine a fraction of a Slice (EMBZ) treatment and apply this fraction in determining the overall PTI score.

II - ASC Determination

2.1 Status	2.2 Date of the ASC Determination
☒ Closed	20/08/2015
2.3 ASC Determination of Variance Request	
The ASC committee agrees to approve the VR therefore ASC grants the VR.	
2.4 ASC Interpretation	
This is an innovative approach for the sea lice management and we support that ASC standards should help to encourage innovation to solve problems. Therefore under the condition of publicizing this fact (more than just the requirement to have the VR on our website), we approve this VR. We have already asked the farm to allow us to make their findings public in one of our public updates - thus encouraging other farms to follow their example. (Two documents regarding the sea lice management were received from Marine Harvest Scotland (by Catarina) on 20/08/2015 - Saved under the farm file)	

FORM 1 - Request for Interpretation or Variance - ASC

This form is for the submission of requests by CABs to the ASC to request interpretations of the ASC normative requirements and/or requests for variance from specific normative requirements.

I - CAB Request

1.1 Name of CAB	1.2 Date of Submission	1.3 CAB Contact Person	1.4 Email Address of CAB Contact Person
Food Certification Scotland International	17/07/15	Matthew James	Matthew.James@acoura.com

1.5 ASC Document Reference

Criteria 5.2.5

Indicator: Maximum farm level cumulative parasiticide treatment index (PTI) score as calculated according to the formula in Appendix VII

Requirement: PTI score ≤ 13

Indicator Compliance Criteria

1.6 Background (Provide full explanation of the issue)

In assessing the sealice population on a farm, MHS now assesses each pen as an epidemiological unit, rather than averaging the site sealice count as a whole. Every pen is assessed by counting and staging the lice on twenty fish per pen every week. Previously only five pens where used to determine the average for the site as a whole. Using data with this finer resolution has allowed a far more acute response to emerging hotspots of sealice build-up on a farm. Strategic treatments are still carried out across the whole farm but it follows that individual pens with a sealice build-up can be targeted especially with bath treatments.

The PTI score is aimed at reducing the amount of sealice medication used on a site in order to keep well within safe limits that will not harm the environment and sensitive wild species.

We propose that the PTI scoring system should adequately reflect this far more prudent and targeted use of therapeutant.

Firstly we suggest that as individual pens are treated they each count as a fraction of a full treatment.

Calculation example:

Week 10: 1 pen out of 10 is treated.

Week 12: 3 pens out of 10 are treated.

Week 18: 5 pens out of 10 are treated.

During this time 90% of the pens have had a treatment so this represents 90% of a single site treatment.

PTI assuming deltamethrin: 6 x 0.8 x 1 x 1 x 90% = 4.32

Secondly the example about assumes that no single pen has been treated more than once. We propose that Component 3: the Resistance Factor should only be advanced from a factor of 1 to a factor of 2 when a single pen receives its second treatment within a 12 month period. It could then be argued that the lice population of that unit has now received a second dose of the same product and selection pressure for resistant genes will have intensified.

Calculation Example continuing from above:

Week 24: 2 pens out of 10 are treated, 1 of which is receiving its first treatment and the other being treated with the same product for the second time:

PTI assuming deltamethrin:

6 x 0.8 x 1 x 1 x 10% = 0.48

6 x 0.8 x 2 x 1 x 10% = 0.96

Total PTI: = 1.44

It is well understood that single pen treatments per se, do not promote the development of resistance to therapeutant. Leaving pens with lower lice counts untreated preserves a refugium of naïve genes within a site and ensures that the overall resistance status of the sealice on a site will not intensify to the same degree as it would if the whole site were treated, thereby wiping out all sealice that carry the sensitive genes.

1.7 Recommended Action/Decision

When bath treating individual pens: To calculate PTI scores for individual pens to represent their fraction of the site as a whole and to apply resistant factor of 2 only when an individual pen receives more than 1 treatment in a 12 month period.

II - ASC Determination

2.1 Status	2.2 Date of the ASC Determination
☒ Closed	20/08/2015

2.3 ASC Determination of Variance Request

The ASC committee agrees to approve the VR therefore ASC grants the VR.

2.4 ASC Interpretation

This is an innovative approach for the sea lice management and we support that ASC standards should help to encourage innovation to solve problems. Therefore under the condition of publicizing this fact (more than just the requirement to have the VR on our website), we approve this VR. We have already asked the farm to allow us to make their findings public in one of our public updates - thus encouraging other farms to follow their example.

(Two documents regarding sea lice management were received from Marine Harvest Scotland (by Catarina) on 20/08/2015 - Saved under the farm file)

ASC – Aquaculture Stewardship Council
Request for interpretation or variance

I CAB Request

1.1 NAME OF CAB	1.2 DATE OF SUBMISSION	1.3 CAB CONTACT PERSON	1.4 EMAIL ADDRESS OF CAB CONTACT PERSON
DNV GL Business Assurance Norway AS	8. April 2016	• Kim Andre Karlsen • Guro Meldre Pedersen • Sander Buijs	Kim.Andre.Karlsen@dnvgl.com Guro.Meldre.Pedersen@dnvgl.com Sander.Buijs@dnvgl.com

1.5 ASC DOCUMENT REFERENCE

ASC Farm Certification and Accreditation Requirements v1
Annex C – Aquaculture Audit Report Requirements
C2: Audit and surveillance reports shall be written in English and in the most common language spoken in the areas where the aquaculture operation is located.

ASC Farm Certification and Accreditation Requirements v2
Annex C – Aquaculture Audit Report Requirements
C1. Audit reports shall be written in English and in the most common language spoken in the areas where the operation is located.

Audit notification: 17.2.4.2 The notice shall be in the local language(s) and English.

1.6 BACKGROUND (PROVIDE FULL EXPLANATION OF THE ISSUE)

The translation of audit reports is a significant cost to the ASC farm certification process and implementation of CAR v2 should take a pragmatic approach adapted to the stakeholders' normal language competences in the area where the candidate site for ASC farm certification is situated.

With the transfer to ASC CAR v2, DNV GL will implement the standard audit report template as required. The general public competence in the English language is high in Scandinavia. DNV GL therefore seeks a variation to the above ASC CAR paragraphs for audits conducted at operations located in Scandinavia to:

- Allow the Audit report in its entirety to be published only in the English version.
- Allow the Audit notification to be published only in the English version.

This variation should not in any way jeopardize the integrity of the ASC programme or the access for stakeholders to relevant information. Any requests from stakeholders to make details of information available in the local language will be fulfilled.

Experience with other schemes including extended stakeholder involvement and broader public engagement than ASC farm, such as MSC Fisheries, has demonstrated that publishing of reports in only the English language has not been an obstacle to stakeholder dialogue or comments.

1.7 Recommended action / decision

DNV GL recommends a variation to the above ASC CAR clauses to allow Audit notifications and Audit reports for audits at operations located in Scandinavia to be published only in English.

ASC – Aquaculture Stewardship Council
Request for interpretation or variance

II ASC Determination

2.1 STATUS	2.2 DATE OF THE ASC DETERMINATION
X☐Closed	24/08/2016
2.3 ASC DETERMINATION ON VARIANCE REQUEST	
This VR is approved.	
2.4 ASC INTERPRETATION	
It is a key requirement under the ASC Certification and Accreditation Requirements v1.0 and v2.0 to have audit reports available in both English and the local language. Given the fact that all Scandinavian countries (Sweden, Denmark, Norway) are rated as "very high" (resp. position 1,3,4) in the English Proficiency Index (http://www.ef.nl/epi/) it can safely be assumed that English understanding is sufficient in order to understand the content of an ASC audit report. Based on this, this VR is approved.	