Eel Assessment – Aquacultuur Groesbeek

Assessment against:

Component 1: Core requirements
Component 5: Eel farming

Completed by
Alex Senechal

16th January 2019

FINAL

Introduction

This document represents the report completed following the 2019 audit carried out under the Sustainable Eel Standard (Version 6.0, June 2018) against Aquacultuur Groesbeek (. This assessment has been completed against Components 1 & 5 of the Standard only.

The assessment is of an eel farming business (Aquacultuur Groesbeek, hereafter AG) based in the southern Netherlands, in Groesbeek.

AG has been operating since 2010 on this site having moved from the original site in 2007/8 following a major fire.

The farm has been designed from scratch as an eel farm in as an efficient way as possible with minimum effect on the local ecological system and environment. The farm has a sophisticated heat pump system and electronic monitoring system with many sensors to cover every element of the farm. The farm produces its own oxygen and has minimal effluent discharge with water samples taken every 50 minutes and tested regularly by the local authorities.

The farm receives 2 batches of 700kg of glass eels per year, split between its 2 glass eel systems (each containing 12 and 11 tanks respectively. Production is of both restocking and consumption eels, most of which are grown up to ~200g, some between 200g-800g and a small amount to 800g+ for selected sales.

The two glass eel systems hold eels until the are up to 5-6g each (23 tanks), fingerling system up to 25g each (21 tanks) and two ongrowing systems for 25g+ (40 tanks).

The farm also has 6 delivery tanks which it uses to bring eels down in temperature from 24 degree to 15 degrees over a two-day period prior to transportation.

1. The assessment

The assessor was Alex Senechal of Control Union Pesca Ltd, who visited AG on the 16th January 2019. The visit included a tour of the facility, discussions with the co-owner Harm Wijnhoven and a review of paperwork.

2. Client Contact Details

Client Contact Name	Harm Wijnhoven
Client Address	St. Jansberg 4, 6562 KD, Groesbeek,The Netherlands
Client Email	info@aquacultuurgroesbeek.nl
Client Phone Number	+31622742000

3. Results of the assessment

The outcome of this assessment is as follows;

A responsible score will result in 1, an aspiring score in 0. Score weighting will be taken into consideration for each element.

That AG has scored the following for Component 1: General Requirements and therefore **should** be considered **RESPONSIBLE** under the SEG standard

Component 1: General Requirements	Auditor's findings	Weighting	Score
1.1 Commitment to Legality	Responsible	1	1
1.2 Contribution to eel conservation projects	Responsible	1	1
1.3 The facility trades in certified responsibly sourced eels	Aspiring	1	0
1.4 Traceability:			
1.4.1 Incoming products, separation and segregation	Aspiring	1	0
1.4.2 Outgoing products	Responsible	1	1
1.4.3 Record keeping and documentation	Responsible	1	1
1.5 Biosecurity & welfare –			
1.5.3	Aspiring	1	0
1.5.	Responsible	1	1
	Total	8	5/8
	Percentage Responsibility Score:	63%	

that AG has scored the following for Component 5: Eel farming and therefore **should** be considered **RESPONSIBLE** under the SEG standard.

Component 5: Eel farming	Auditor's findings	Weighting	Score
5.1 The total mortality rate during the culture is low	Responsible	2	2
5.2 The fish meal/oil ingredients in the feed come from a responsible source	Aspiring	1	0
5.3 Feed is used as efficiently as possible	Responsible	1	1
5.4 Water Quality	Responsible	1	1
5.5 There is minimal ecological impact from effluent discharge	Responsible	1	1
5.6 Grading, slaughter and transportation are carried out with respect to welfare	Responsible	1	1
5.7 The farm provides eel for restocking	Responsible	2	2
5.8 The farm provides eel for restocking	Responsible	2	2
	Total	11	10/11
	Percentage Responsibility Score:	91%	

Summary of assessment and scoring

Component	**Aspiring**	**Responsible**
1	3	5
5	1	10
Total	**4**	**15**
Total Responsibility Score	**15/19**	**79%**

Recommendations (numbers relevant to standard criteria):

1.3 It is recommended that by the next audit (verification audit in 2021), the company ensure that at least 30% of the glass eels purchased are SEG certified with an aim to purchase at least 50% SEG certified glass eels by the time of audit in 2023, therefore increasing its purchase of SEG glass eels by at least 10% per year.

5.2 It is recommended that by the next assessment, 100% of the feed supply should be verified to be from sources which meet the requirements of the standard in addition to supplier documents declaring that the ingredients are from a sustainable source.

4. Next Audit

At the completion of the audit the client was assessed against the risk assessment set out in the Methodology. This is set out in the table below.

Question		Performance of the Client at Audit	Yes	No
1	Has the client been part of any external investigation which may be of concern to SEG AND/OR been suspended from any other certification standard?	Enhanced Surveillance		Go to Q2
2	Has the client received a borderline[1] pass for a Component in its previous audit?	Enhanced Surveillance		Go to Q3
3	Does the client only buy and sell product (does not physically handle it?)	Minimum Surveillance		Go to Q4
4	All other scenarios	Standard Surveillance		

	Certification Audit	Year 1	Year 2	Year 3	Year 4 Recertification Audit
Minimum Surveillance	On-Site Audit	Remote Audit	Remote Audit	Remote Audit	On-Site Audit
Standard Surveillance	On-Site Audit	No Audit	On-Site Audit	No Audit	On-Site Audit
Enhanced Surveillance	On-Site Audit	On-Site Audit	On-Site Audit	On-Site Audit	On-Site Audit

As the client has been seen to fall into the Standard Surveillance bracket, the next audit will be due in the January 2021 (in 2 years' time) and shall be an on-site audit.

[1] A borderline pass, under versions 1.0 to 5.0 of the standard, was considered a pass when one less amber indicator is received then would be required to fail (i.e. 5 green indicators and 4 amber indicators) or when a client is certified with equal number of amber and green indicators.

The tables below give the standard and a rationale for the scores given above. The score is highlighted in the appropriate colour.

Component 1 – Generic requirements	
Criterion 1.1: Commitment to legality	
Responsible indicators	For at least the past two years: the organisation has not been found guilty for any offences relating to eel fishing or trading.
Aspiring indicators	For at least the past 12 months: the organisation has not been found guilty for any offences relating to eel fishing or trading.
Discussion	No evidence of illegal trading by AG has been provided to the auditor and Mr Wijnhoven confirmed verbally that they have not received any prosecutions relating to eel purchase, farming or trading in the past 2 years.
Score	Pass: Responsible indicator
Criterion 1.2: Contribution to Eel Conservation Projects. (Optional bonus score)	
Responsible indicators	The organisation donates at least 2% of its profits or at least 20% of its corporate responsibility programme to projects that make a positive contribution to eel conservation or population enhancement, such as Eel Stewardship Funds, River Restoration projects, conservation and education projects.
Aspiring indicators	The organisation donates 1 – 1.99% of its profits or 10 - 20% of its corporate responsibility programme to projects that make a positive contribution to eel conservation or population enhancement, such as Eel Stewardship Funds, River Restoration projects, conservation and education projects.
Discussion	2.5% of the companies profit was spent on eel population improvement programs such as Dupan and the charitable donation on 25,000 fingerlings for release.
Score	Pass: Responsible indicator
Criterion 1.3: The facility trades in certified responsibly sourced eel	
Responsible indicators	The organisation trades in at least 50% (by number) of certified responsibly sourced eel and has the documentation to demonstrate that.
Aspiring indicators	The facility trades in 10 – 49.9% (by number) of certified responsibly sourced eel and has the documentation to demonstrate that.
Discussion	No SEG fish has been purchased to date at the time of the audit therefore there was no trade, however, since the audit glass eels from the 2018/19 season were purchased, of which 14% were SEG certified therefore meeting the Aspiring requirement. These fish will be kept separate from others from the point of delivery and throughout the on-growing process.
Score	Pass: Aspiring indicator

Criterion 1.4: Traceability	
1.4.1: Traceability - Incoming product, separation and segregation	
Responsible indicators	• Certified and uncertified eel products can be clearly and easily traced back to their source. • Where a fishery or buyer, an electronic tele-declaration system is used • It operates a clear system which ensures that the product remains separated at all stages from arrival to dispatch from non-certified eel products. • The organisation ensures that any products wishing to make a claim as certified do not contain any non-certified eel-based ingredients. • If resolved through mass- or number- balance calculations, the margin of error does not exceed 2%
Aspiring indicators	• Certified and uncertified eel products can be traced back to their source. • It operates a system which ensures that the product remains separated at all stages from arrival to despatch from non-certified eel products. • The organisation ensures that any products wishing to make a claim as certified do not contain any non-certified eel-based ingredients • If resolved through mass- or number- balance calculations, the margin of error does not exceed 5%
Discussion	All invoicing is retained for records. Products can be kept separate and it is the intention that this will be done with the fish purchased in 2019. Year classes are always kept separate other than very large eels of which there are very few and which have to be mixed for space economy and efficiency. To date no product has been SEG and therefore a mass balance calculation is not possible. New fish purchased in 2019 are the first to enter the system.
Score	Pass: Aspiring indicator
1.4.2: Traceability - Outgoing product	
Responsible indicators	• Where a fishery or buyer, an electronic tele-declaration system is used • Documentation is well maintained with a maximum of 2% error in the following: • The organisation correctly uses batch-coding for labelling certified product, which can be on the packaging for the product, or included in the documentation (e.g. invoice) with the assignment • All product to be sold as certified by an organisation is accompanied by an invoice which meets the following criteria: - Includes an appropriate batch code - Includes a record of the quantity (no. & weight) of product and to whom it was sold

Aspiring indicators	• Documentation is well maintained with a maximum of 5% error in the following: • The organisation correctly uses batch-coding for labelling certified product, which can be on the packaging for the product, or included in the documentation (e.g. invoice) with the assignment • All products to be sold as certified by an organisation are accompanied by an invoice which meets the following criteria: - Includes an appropriate batch code - Includes a record of the quantity (no. & weight) of product and to whom it was sold
Discussion	Invoicing currently contains weight, name of buyer, address and will contain batch numbering and aquaculture registration number. Using delivery numbers, the farm is already able to trace back to which tanks and therefore which fish have been sold. Batch coding on invoicing will be adopted as per the SEG guidelines should certification be granted
Score	Pass: Responsible indicator
1.4.3: Traceability - Record keeping and documentation	
Responsible indicators	• The organisation operates a system that allows the tracking and tracing of all eel from purchase to sale and including any steps in between. In the case of live eels this should include the ability to track each batch delivered to a buyer to be connected back to a water, a time period (maximum duration one month) and specific fisherman/vessel • If a fisherman or buyer, a tele-declaration system is used to report catches and trade • The organisation operates a system that also allows for the completion of a batch reconciliation of eel product by weight over a given period. • The organisation maintains records for a minimum of three (3) years.
Aspiring indicators	The above requirements are met except that: • Records have been maintained for less than three (3) years • If a fisherman or trader, a tele-declaration system is planned to be used to report catches and trade in the next season
Discussion	The organisation keeps records for a minimum of 7 years for all invoicing and receipts. Mortality is kept since 2014 (presented). Tracing of batches of glass eels can be done back between years by size class.
Score	Pass: Responsible indicator
Criterion 1.5: Biosecurity & welfare – Eel and eel products are provided with minimal risk of diseases, parasites and alien species	
1.5.3 Eel farming: Biosecurity is present and disease is treated rapidly and appropriately	

Responsible indicators	• The facility has the appropriate permissions to operate from the relevant authority. • The use of chemicals follows legal requirements of the EU and of the country concerned • An effective and documented biosecurity plan is in place and there is evidence that it is being followed. • Daily records are available showing monitoring of fish health and signs of stress and daily mortality is recorded • Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility • UV is used at an appropriate level and separation between tanks
Aspiring indicators	• The facility has the appropriate permissions to operate from the relevant licensing authority • The use of chemicals follows legal requirements of the EU and of the country concerned. • An effective and documented biosecurity plan is in place and there is evidence that it is being followed. • Eels are regularly inspected for disease (although this may not be documented) and daily mortality is recorded. • Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility.
Discussion	Netherlands NVWA authorisation number presented E.G. 206947. Biological cleaning product for cleaning when tanks are empty. Disposable gloves are used at all times for each separate system when in contact with eels. Salt is used throughout as well as acid to control pH. Water testing is done regularly to ensure that effluent from the facility is clear and sampling is taken every 50 minutes, all samples of which are then tested periodically. There is a biosecurity protocol for the facility with secured access only and camera systems in place. No access is granted without knowledge of the owners. Bio mats are used between rooms for staff and any visiting individuals. A written biosecurity plan was provided to the auditor following the audit. Medication records are kept from 2010 for each vet visit. This tends to be following delivery of glass eels. No UV is used at the facility any more. This used to be in place previously but was not found to have any major effect.
Score	Pass: Aspiring indicator
Restocking: The risk of restocked eels introducing disease into wild populations has been assessed and is minimal	
Responsible indicators	Eels are tested before restocking and found to be free of disease AND/OR eels are from a known source which is tested on at least an annual basis and known to be free of disease.
Aspiring indicators	Eels are tested before restocking when first sourced from a new area, and periodically (at least annually) thereafter to ensure they are free from disease.
Discussion	Eels are tested in accordance with the requirements of the customer. With no findings of disease or parasites to date.
Score	Pass: Responsible indicator

Component 5 – Eel farming	
Criterion 5.1: The total mortality rate during the culture process is low	
Weighting: 2	
Responsible indicators	• The Percentage Mortality Rate of eels in culture is less than or equal to 10% on average in the current and previous year OR as an average of the previous five years • An accurate daily log is maintained of the number and causes of mortality
Aspiring indicators	• The Percentage Mortality Rate of eels in culture is between 10 and 15% on average in the current and previous years OR as an average of the previous five years. • An accurate daily log is maintained of the number of mortalities
Discussion	Mortality has been calculated based on daily recordings of weight and total production for the year as per the standard. This gives mortality rates of 1.5%, 1.5% and 1.6% per year for 2016-2018 respectively. Figures for previous years were also available.
Score	Pass: Responsible indicator
Criterion 5.2: The fish meal/oil ingredients in the feed come from a responsible source	
Weighting: 1	
Responsible indicators	Fish meal/oil in the feed (including juvenile feeds) is certified by IFFO or MSC or shown in some other way to be from responsible or sustainable sources
Aspiring indicators	Fish meal/oil in the feed (including juvenile feeds) is not certified by IFFO or MSC or shown to be from responsible sources, but there are credible plans to move to such a supplier within 2 years
Discussion	The farm uses 0.5 feed from Skretting. Communications with Skretting were opened following the audit to acquire additional information on the sustainability of the feeds supplied. Some information was provided by the company however, no clear information was provided to indicate that the feed was IFFO or MSC certified. Company policy was provided which identified the responsibility criteria for ingredient supply to make the feed, and the company have confirmed that ingredients are sustainably sourced. All other feed is from BioMar who were contacted as part of the assessment and declared that: "The marine raw materials in the eel feed are variable in origin. The overall scores for fish meal and fish oil used by BioMar Brande during 2018 was: - 88% of sourced fish meal was IFFO RS compliant - 96% of sourced fish oil was IFFO RS compliant."
Score	Pass: Aspiring indicator
Criterion 5.3: Feed is used as efficiently as possible	
Weighting: 1	

Responsible indicators	The average feed conversion ratios in the farm are as follows: glass eel to fingerlings: 1.1 or less fingerlings to 200g: 1.6 or less large eels: 2.0 or less
Aspiring indicators	The average feed conversion ratios in the farm are as follows: glass eel to fingerlings: 1.3 or less fingerlings to 200g: 1.8 or less large eels: 2.2 or less
Discussion	The following FCR were calculated for the various stages of growth: Glass eels averaged at 1.0, Fingerlings to 200g averaged at 1.2-1.3 and ongrowing from 200g + averaged at 1.4.
Score	Pass: Responsible indicator
Criterion 5.4: Water quality	
Weighting: 1	
Responsible indicators	• A system is in place that is expected to keep key water quality parameters within suitable tolerances for healthy eel survival (e.g. Ammonia, Suspended Solids, pH, Oxygen) • Water quality management procedures are in place including regular monitoring of relevant parameters which shows that water quality is always high and stable • Water quality monitoring is linked to an alarm-based system in the event of a sudden drop in water quality • The facility operates a back-up system to ensure that water quality will not adversely affect survival rates in the case of a power supply failure.
Aspiring indicators	• A system is in place that is expected to keep key water quality parameters within suitable tolerances (e.g. Ammonia, Suspended Solids, pH, Oxygen) • Water quality management procedures are in place and there is regular monitoring of relevant parameters which shows that water quality is always high and stable.
Discussion	Automatic water parameter system are in place monitoring oxygen, temp, pH. This is backed by regular manual testing every week to ensure systems are functioning properly. Backup systems are in place for power (1 generator to cover all requirements) which is tested every 14 days. Heat exchange systems and water purification systems for tanks (with bio and mobile systems, drum system) Oxygen system in place uses deep tanks (40m) to oxygenate the water. Alarm system is in place for all elements which contacts all staff and has to be reset from the main unit in the farm before turning off. The system can be checked remotely to know on arrival which systems to attend to.
Score	Pass: Responsible indicator
Criterion 5.5: There are minimal ecological impacts from effluent discharge	
Weighting: 1	

Responsible indicators	• The system is closed-circuit and has no discharge OR • Effluent discharge is regularly tested by the farm AND • Effluent discharge complies with all local and national requirements AND • Has not been found to be non-compliant in the past 5 years.
Aspiring indicators	• Effluent discharge is regularly tested by the farm AND/OR • Has been found to be non-compliant on no more than 1 occasion in the past 5 years.
Discussion	Water purification system to improve quality of effluent water leaving facility. Water from the facility is sampled every 50 minutes and samples taken by the authorities regularly for testing. The facility is always found to be within the excepted parameters with no non-compliance in the past 5 years.
Score	Pass: Responsible indicator
Criterion 5.6: Grading, slaughter and transportation are carried out with respect to welfare	
Weighting: 1	
Responsible indicators	• Grading is completed in an efficient manner • Slaughter is completed by a method that provides an instant death or renders them insensible to pain, i.e. electric stunning or percussive stunning. • Procedures are in place to ensure transportation provides suitable conditions for fish welfare.
Aspiring indicators	• Other, previously acceptable methods of stunning before slaughter are used, e.g. chilling, but there are credible plans in place to invest in the latest methods within the next 2 years
Discussion	Grading is done by hand net with small mesh for glass eels (team of 5 persons) and then through an air pump for larger eels to manual graders. Eels are then weighed and returned to tanks ensuring that eels are never allowed to fry out. No slaughter or transportation is undertaken by the company.
Score	Pass: Responsible indicator
Criterion 5.7: The farm provides eel for restocking	
Weighting: 2	
Responsible indicators	The farm can provide documented evidence that 10% or more of the farm's annual eel production (by piece) has been provided for restocking for the purpose of conservation / escapement.
Aspiring indicators	The farm can provide documented evidence that it makes 10 % of their annual eel production (by piece) available for restocking for the primary purpose of conservation / escapement AND/OR for new clients, the farm can demonstrate that they have bookings for re-stocking in the following year at more than 10% of the predicted annual eel production (by piece) for the purpose of conservation / escapement.
Discussion	In 2018, 15% were sent for restocking while 2017 was 14%. This was based on number of pieces sold/ number of eels received in that year.
Score	Pass: Responsible indicator

Criterion 5.8: Eels for restocking are not graded out slow-growers	
Weighting: 2	
Responsible indicators	The size range and quantities in the eels for restocking reflect 100% that for the age group in the whole farm
Aspiring indicators	The size range and quantities indicate no more than a 25% supplement of those for restocking are from slower growing fish of the same age group.
Discussion	Restocking tends to be done with 3-10g fish, this is heavily monitored by the clients to ensure that the quality and range of fish received is acceptable. Some grading already occurs before sale, however, these fish are not removed from the sale but are separated to minimise competition with the rest of the fish in the tanks. Sold restocking fish aim to be representative of the population received.
Score	Pass: Responsible indicator