

## **Eel Assessment – Palingkwekerij Koolen B.V.**

### **Assessment against:**

Component 1: Core requirements  
Component 5: Eel farming

**Completed by**  
Alex Senechal

14<sup>th</sup> 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 Palingkwekerij Koolen BV. This assessment has been completed against Components 1, 5 & 7 of the Standard only.

The assessment is of an eel farming business (Palingkwekerij Koolen BV. hereafter Koolen BV) located at Hongarijesedijk 12, 5571XC, Bergeijk in The Netherlands. The farm which was rebuilt in 2012, should be considered as large and is part of the Nijvis Group which consists of a number of other facilities for the purchase, storage, growing and processing of eels and eel products in France, Morocco, the Netherlands and Germany. The Koolen B.V. farm consists of a number of systems for the various growing stages of the eels (glass eels, fingerlings & on-growing) during their time at the farm. The three sections are all of varying sizes with differently sized circular tanks supplied by separate water systems which enables batches of glass eels and fingerlings received to be segregated where required.

In all, 144 tanks can be used at the facility and produce between 450-600 tonnes per year, mostly within 2 years of arrival at the facility as either glass eels or fingerlings. In addition to the 144 tanks, there are 14 further tanks used to preparing and storing eels prior to onward transportation to clients.

The farm was designed from scratch as an eel farm with minimum effect on the local ecological system. It is very green with highly efficient heat exchange systems for energy saving, oxygen producing systems and minimal effluent discharge.

Glass eels are fed cod roe for the first ~15 days before moving onto a crumbled pelleted feed which is delivered by automated (timed) feeding system which is monitored and controlled by Mr Swinkels at a higher level following daily monitoring by the section managers.

The majority of eel produced by the facility are for the 130-200g market. No eels are slaughtered or processed at the Koolen BV site.

## 1. The assessment

The assessor was Alex Senechal of Control Union Pesca Ltd, who visited Palingkwekerij Koolen B.V on the 14<sup>th</sup> January 2019. The audit included interviews with Mr William Swinkels who oversees the facility and knows all of its systems, staff and procedures.

The visit included a tour of the facilities, discussions with Mr Swinkels and a review of paperwork.

## 2. Client Contact Details

<b>Client Contact Name</b>	William Swinkels
<b>Client Address</b>	Hongarijesedijk 12, 5571XC, Bergeijk
<b>Client Email</b>	info@nijvis.nl
<b>Client Phone Number</b>	00 (0)24 3785053

## 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 Koolen BV has scored the following for Component 1: General Requirements and therefore **should** be considered **RESPONSIBLE** under the SEG standard.

<b>Component 1: General Requirements</b>	Auditor's findings	Weighting	Score
1.1 Commitment to Legality	Responsible	1	1
1.2 Contribution to eel conservation projects	N/A	N/A	N/A
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 Eel farming	Responsible	1	1
1.5.4 Restocking	Responsible	1	1
	Total	7	5/7
Percentage Responsibility Score:		71%	

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

<b>Component 5: Eel farming</b>	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	Aspiring	1	0
5.4 Water Quality	Responsible	1	1
5.5 There are 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 - quantity	Responsible	2	2
5.8 The farm provides eel for restocking - quality	Responsible	2	2
Total		11	9/11
		82%	

### Summary of assessment and scoring

Component	Aspiring	Responsible
1	2	5
5	2	9
<b>Total</b>	<b>4</b>	<b>14</b>
<b>Total Responsibility Score</b>		<b>11/18 = 78%</b>

### Recommendations:

Component 1.2 - It is recommended that in order to achieve a higher score in any future assessment, further attempts are made by the company to increase its level of charitable contributions to sustainable eel projects in order to reach the levels outlined in the standard.

Component 5.2 – It is recommended that Koolen BV ensure that all feed used at the facility is from a certified sustainable source by the time of the next audit to ensure that it can achieve a responsible score going forward.

Component 5.3 – It is recommended that in order to achieve a responsible score at the next audit, the farm ensures that separate FCR figures are maintained for the glass eels to the fingerlings received from France even if they are all within the same section of the farm. This should be easily possible as the FCR for individual tanks is calculated by the farm and should be tracked as such for ease of assessment.

## Comments:

It is noted that although segregation and separation of SEG eels is possible throughout the systems present in the farm, there is a preference by the owner and managers of the farms that SEG fish moving through the farms would be calculated by number of pieces purchased and number of pieces sold rather than complete segregation. Following this audit, the option was discussed between the CAB and SEG panel and a decision regarding this matter is pending.

The farm appears to be a well-managed and efficient eel growing business which is able to prevent and control the fist of pathogens to the eels it has within its systems by using good practical fish husbandry with modern monitoring, detection and corrective electronic systems to maintain optimal farming conditions for the species.

### 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 <sup>1</sup> 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 January 2022 (in 2 years' time) and shall be an on-site audit.**

<sup>1</sup> 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.

<b>Component 1 – Generic requirements</b>	
<b>Criterion 1.1: Commitment to legality</b>	
<b>Responsible indicators</b>	For at least the past two years: the organisation has not been found guilty for any offences relating to eel fishing or trading.
<b>Aspiring indicators</b>	For at least the past 12 months: the organisation has not been found guilty for any offences relating to eel fishing or trading.
Discussion	The client declared at the time of the assessment that there had not been any legal proceeding against the company under assessment in the past 2 years and that there were no ongoing investigations either.
Score	Pass: Responsible indicator
<b>Criterion 1.2: Contribution to Eel Conservation Projects. (Optional bonus score)</b>	
<b>Responsible indicators</b>	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.
<b>Aspiring indicators</b>	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	While the company contributes 0.02 EUR per kg of feed purchased, this has been done each year since 2010 to help fund eel conservation projects in the Netherlands and the EU, the yearly contributions are not sufficient to meet the requirements of this component and as an optional bonus score, no scoring is being applied for this element.
Score	N/A
<b>Criterion 1.3: The facility trades in certified responsibly sourced eel</b>	
<b>Responsible indicators</b>	The organisation trades in at least 50% (by number) of certified responsibly sourced eel and has the documentation to demonstrate that.
<b>Aspiring indicators</b>	The facility trades in 10 – 49.9% (by number) of certified responsibly sourced eel and has the documentation to demonstrate that.
Discussion	Figures were provided for the quantity of SEG fish purchased over the last 3 seasons, varying from year to year, 47.2%, 12.2% and 47.5% for the years 2016, 2017 & 2018 respectively. Therefore, the company has averaged 35.6% of SEG fish coming into the company for the last 3 years.
Score	Pass: Aspiring indicator
<b>Criterion 1.4: Traceability</b>	

1.4.1: Traceability - Incoming product, separation and segregation	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>• Certified and uncertified eel products can be clearly and easily traced back to their source.</li> <li>• Where a fishery or buyer, an electronic tele-declaration system is used</li> <li>• It operates a clear system which ensures that the product remains separated at all stages from arrival to dispatch from non-certified eel products.</li> <li>• The organisation ensures that any products wishing to make a claim as certified do not contain any non-certified eel-based ingredients.</li> <li>• If resolved through mass- or number- balance calculations, the margin of error does not exceed 2%</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>• Certified and uncertified eel products can be traced back to their source.</li> <li>• It operates a system which ensures that the product remains separated at all stages from arrival to despatch from non-certified eel products.</li> <li>• The organisation ensures that any products wishing to make a claim as certified do not contain any non-certified eel-based ingredients</li> <li>• If resolved through mass- or number- balance calculations, the margin of error does not exceed 5%</li> </ul>
<b>Discussion</b>	<p>To date, certified and uncertified product have not been kept separate, however, French eels and eels from other sources are kept separate throughout the entire system until onward sale. All sources of eels entering the facility can be traced back to source through invoicing.</p> <p>The site is run in a way which has the capability and capacity to keep all eels separate however, it is thought that this will not allow for optimisation of the systems present and production of a consistent product. These two things being key to the profitability of the company and ultimately best welfare of the fish farmed at the facility. For example; size and year class separation are more important for separation of eels throughout the farm than original sourcing of the fish.</p> <p>Fish are generally kept as separate year classes whereby the farm progresses the fish through from the glass eel, to fingerling to on-growing sections as the fish grow. The exception to the year class separation rule being larger fish which are grown or who take longer to reach marketable size. In these instances, the fish may be aggregated between year classes to economise on tank space when fish are present for 3+ years.</p> <p>It is suggested by the client that for number balance calculations in the future, the number of SEG pieces (individual eels) which are purchased and sold should be more important than if the eels had been kept separate throughout a system.</p>
<b>Score</b>	Pass: Aspiring indicator
1.4.2: Traceability - Outgoing product	

<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>• Where a fishery or buyer, an electronic tele-declaration system is used</li> <li>• Documentation is well maintained with a maximum of 2% error in the following:             <ul style="list-style-type: none"> <li>• 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</li> </ul> </li> <li>• All product to be sold as certified by an organisation is accompanied by an invoice which meets the following criteria:             <ul style="list-style-type: none"> <li>- Includes an appropriate batch code</li> <li>- Includes a record of the quantity (no. &amp; weight) of product and to whom it was sold</li> </ul> </li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>• Documentation is well maintained with a maximum of 5% error in the following:             <ul style="list-style-type: none"> <li>• 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</li> </ul> </li> <li>• All products to be sold as certified by an organisation are accompanied by an invoice which meets the following criteria:             <ul style="list-style-type: none"> <li>- Includes an appropriate batch code</li> <li>- Includes a record of the quantity (no. &amp; weight) of product and to whom it was sold</li> </ul> </li> </ul>
Discussion	<p>The facility maintains all its invoices for all eels sold by the company, with batches recorded on the internal system as well. As the company is not currently certified, it has not sold any eels as SEG certified and therefore there was no paperwork to this effect to be verified at the time of the audit. Invoicing of outgoing product from the company currently includes the quantity sold and to whom it is sold as per the requirements above. Batch coding will be done in accordance with the SEG requirements should certification be granted for any future eels wishing to be sold as SEG certified.</p>
Score	Pass: Responsible indicator
<b>1.4.3: Traceability - Record keeping and documentation</b>	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>• 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</li> <li>• If a fisherman or buyer, a tele-declaration system is used to report catches and trade</li> <li>• The organisation operates a system that also allows for the completion of a batch reconciliation of eel product by weight over a given period.</li> <li>• The organisation maintains records for a minimum of three (3) years.</li> </ul>
<b>Aspiring indicators</b>	<p>The above requirements are met except that:</p> <ul style="list-style-type: none"> <li>• Records have been maintained for less than three (3) years</li> <li>• If a fisherman or trader, a tele-declaration system is planned to be used to report catches and trade in the next season</li> </ul>

Discussion	Records are present for more than 3 years to date. Eels received from a SEG source are also accompanied by batch numbering from the supplier and usually a declaration list which identifies the fishermen and quantities of fish purchased to form the batch. All records for purchases and sales of fish are maintained for a minimum of 7 years as with all other accounts in accordance with Netherlands regulation. The growth of fish is monitored regularly through grading and therefore weight of fish within separate systems is monitored closely between systems.
Score	Pass: Responsible indicator
<b>Criterion 1.5: Biosecurity &amp; welfare – Eel and eel products are provided with minimal risk of diseases, parasites and alien species</b>	
<b>1.5.2 Eel farming: Biosecurity is present, and disease is treated rapidly and appropriately</b>	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>• The facility has the appropriate permissions to operate from the relevant authority.</li> <li>• The use of chemicals follows legal requirements of the EU and of the country concerned</li> <li>• An effective and documented biosecurity plan is in place and there is evidence that it is being followed.</li> <li>• Daily records are available showing monitoring of fish health and signs of stress and daily mortality is recorded</li> <li>• Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility</li> <li>• UV is used at an appropriate level and separation between tanks</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>• The facility has the appropriate permissions to operate from the relevant licensing authority</li> <li>• The use of chemicals follows legal requirements of the EU and of the country concerned.</li> <li>• An effective and documented biosecurity plan is in place and there is evidence that it is being followed.</li> <li>• Eels are regularly inspected for disease (although this may not be documented) and daily mortality is recorded.</li> <li>• Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility.</li> </ul>
Discussion	<p>The facility has the appropriate permissions by the Netherlands Authorities to operate as an aquaculture facility. Chemicals used at the facility are for cleaning and balancing of pH within the water systems. All waste water departing from the facility meet the legal requirements of the EU and Netherlands before leaving the facility. No chemicals used are outside those permitted and within the legal requirements of the EU of the Netherlands.</p> <p>A daily log is kept for each system throughout the farm by the 3 managers for all water quality parameters, general fish health, and monitoring of eating rates to check for signs of stress. Security at the facility, as part of the documented biosecurity plan, prohibits access to the facility for all persons other than staff if there is not prior guidance from W. Swinkels or J. Koolen. Suppliers and transported staff and vehicles are never allowed access to</p>



	<p>inside the buildings with eels being unloaded outside into facility equipment and loaded into transportation vehicles by the facility as well. Spoiled water from a transport is pumped directly into the sewage system to ensure no mixing with water sources from the facility.</p> <p>Eels arriving at the facility are placed in separate systems to eels already present at the facility as a form of quarantine. The facility usually uses pH as a form of controlling disease outbreaks. Should any signs of disease be noted by staff, they are to contact W. Swinkels for referral. Medication at the facility is monitored by W. Swinkels and any medication prescribed by a vet is only administered by W. Swinkels. UV is used on every system within the facility to treat water.</p>
Score	Pass: Responsible indicator
<b>1.5.4 Restocking: The risk of restocked eels introducing disease into wild populations has been assessed and is minimal</b>	
<b>Responsible indicators</b>	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.
<b>Aspiring indicators</b>	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	Depending on the client, the testing may or may not be required of the facility. In the instance of German clients, this is normally requested and is completed by the institute in Wageningen. Other clients such as those in Poland require there to be a signed certificate attesting to the fish provided being free of disease. In all cases it is always the intention of the facility to provide eels which are free of disease in all instances.
Score	Pass: Responsible indicator

Component 5 – Eel farming	
<b>Criterion 5.1: The total mortality rate during the culture process is low</b>	
<b>Weighting: 2</b>	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>• 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</li> <li>• An accurate daily log is maintained of the number and causes of mortality</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• An accurate daily log is maintained of the number of mortalities</li> </ul>
<b>Discussion</b>	<p>Records are kept for the quantity of (by weight) of fish sent for destruction every 2-4 weeks. Figures for destroyed quantities dating back to 2013 were provided based on invoiced amounts. The percentage mortality rate for 2018 was calculated based on weight of fish destroyed, size range this was expected to be from and predicted production in the year. Based on the calculation provided by the SEG Standard (No. piece per year/ stock in the year x 100) there was a mortality rate of 3.08% per year, therefore for 2 years as set out in the Standard, the rate would be seen as 6.16%.</p>
<b>Score</b>	Pass: Responsible indicator
<b>Criterion 5.2: The fish meal/oil ingredients in the feed come from a responsible source</b>	
<b>Weighting: 1</b>	
<b>Responsible indicators</b>	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
<b>Aspiring indicators</b>	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
<b>Discussion</b>	<p>All feed is sourced from either Alltech Coppens or BioMar, these companies were contacted and in the case of Alltech Coppens a declaration was made that fishmeal used within the production of the ‘Extreme’ feed for the eels, purchased by Koolen BV., is IFFO RS and MSC certified. However, it did state that currently the fish oil within this product is not certified, but that it hopes to only use fish oil from certified sources within the next year.</p> <p>All other feed is from BioMar who were contacted as part of the assessment and declared that:</p> <p>“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:</p> <ul style="list-style-type: none"> <li>- 88% of sourced fish meal was IFFO RS compliant</li> <li>- 96% of sourced fish oil was IFFO RS compliant.”</li> </ul>

<b>Score</b>	Pass: Aspiring indicator
<b>Criterion 5.3: Feed is used as efficiently as possible</b>	
<b>Weighting: 1</b>	
<b>Responsible indicators</b>	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
<b>Aspiring indicators</b>	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
<b>Discussion</b>	Feeding at the facility is done through timed automated dispensers through a computerised silo-controlled system. This enables managers to monitor feed uptake and alter feed dispensation within the system for each tank separately. Feed conversion ratios were calculated for each of the stages identified in the standard. Glass eel figures appear to be high but include a high percentage of fingerlings within the system which are purchased from France as such. As a result, glass eels (including fingerlings from France) were 1.38, fingerlings to 200g were 1.52 and on-growing were 1.36. When considering that a large proportion of the mass of eels in the glass eels systems are fingerlings received from France but have been incorporated into the figures for the glass eels as FCR were calculated by the system separations within the farm, some lenience should be applied to the FCR for the glass eels and notice should be made that the fingerling to 200 and larger eel FCRs are both below the requirements of the Responsible indicator. Therefore, it is the assessor's opinion that an Aspiring indicator is justified here.
<b>Score</b>	Pass: Aspiring indicator
<b>Criterion 5.4: Water quality</b>	
<b>Weighting: 1</b>	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>• 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)</li> <li>• Water quality management procedures are in place including regular monitoring of relevant parameters which shows that water quality is always high and stable</li> <li>• Water quality monitoring is linked to an alarm-based system in the event of a sudden drop in water quality</li> <li>• 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.</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>• A system is in place that is expected to keep key water quality parameters within suitable tolerances (e.g. Ammonia, Suspended Solids, pH, Oxygen)</li> </ul>

	<ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Discussion</b>	<p>A system is in place where by water is taken from a deep well on site before use in the separate recirculation systems. The water parameters for each system are monitor by automated computer systems which observes: pH, temperature, oxygen and feed rates. Water level systems are present on each tank separately. Visual monitoring and manual pH and oxygen testing are also done in each tank. The pH of the water for each system is altered automatically to ensure it remains constant. This can be manually modified when eels display any signs of stress from a possible increase in pathogens in the water.</p> <p>All systems and parameters which are monitored by the computer systems are also connected to an alarm system which notifies the on sight flat, duty manager and Mr W. Swinkels. The facility is manned 24 hours per day. The facility has 2 backup power generators in case of power failure from the grid. These have a capacity of 700kV and 600kV which is ample to cover the power requirements of the facility. In addition to this, Oxygen reserves are kept at the facility in case, any of the system require immediate saturation should one of the oxygenation systems fail or require maintenance.</p>
<b>Score</b>	Pass: Responsible indicator
<b>Criterion 5.5: There are minimal ecological impacts from effluent discharge</b>	
<b>Weighting: 1</b>	
<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>The system is closed-circuit and has no discharge OR</li> <li>Effluent discharge is regularly tested by the farm AND</li> <li>Effluent discharge complies with all local and national requirements AND</li> <li>Has not been found to be non-compliant in the past 5 years.</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>Effluent discharge is regularly tested by the farm AND/OR</li> <li>Has been found to be non-compliant on no more than 1 occasion in the past 5 years.</li> </ul>
<b>Discussion</b>	<p>Water discharge is tested 6 times per year by local authorities and is found to be “clean” and within acceptable parameters. Manure is removed from the recirculated systems and stored for use as fertiliser by local farmers. No infringements have been noted with regards to water quality discharged from the facility.</p>
<b>Score</b>	Pass: Responsible indicator
<b>Criterion 5.6: Grading, slaughter and transportation are carried out with respect to welfare</b>	
<b>Weighting: 1</b>	

<b>Responsible indicators</b>	<ul style="list-style-type: none"> <li>Grading is completed in an efficient manner</li> <li>Slaughter is completed by a method that provides an instant death or renders them insensible to pain, i.e. electric stunning or percussive stunning.</li> <li>Procedures are in place to ensure transportation provides suitable conditions for fish welfare.</li> </ul>
<b>Aspiring indicators</b>	<ul style="list-style-type: none"> <li>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</li> </ul>
<b>Discussion</b>	Grading is carried out regularly by the section managers. This is done through emptying of tanks using pipe systems and automated graders to limit handling of the fish. Cooling before transport is carried out in separate tanks following grading where eels are lowered in temperature gradually from 25 C to around 14 C over 1 week to habituate and purge eels prior to final weighing, loading and transportation. No slaughter is carried out at the site.
<b>Score</b>	Pass: Responsible indicator

#### Criterion 5.7: The farm provides eel for restocking

**Weighting: 2**

<b>Responsible indicators</b>	The farm can provide documented evidence that 10% or more of the farm's annual eel production (by piece) <u>has been provided</u> for restocking for the purpose of conservation / escapement.
<b>Aspiring indicators</b>	The farm can provide documented evidence that it makes 10 % of their annual eel production (by piece) <u>available</u> 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.
<b>Discussion</b>	The farm has provided receipts for the quantity of glass eels sold for restocking over the past 4 years. This has accounted for 27.4%, 76.63%, 33.2% and 45.6% from 2015-2018 respectively for restocking from the quantity of eels produced by the farm.
<b>Score</b>	Pass: Responsible indicator

#### Criterion 5.8: Eels for restocking are not graded out slow-growers

**Weighting: 2**

<b>Responsible indicators</b>	The size range and quantities in the eels for restocking reflect 100% that for the age group in the whole farm
<b>Aspiring indicators</b>	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.
<b>Discussion</b>	The farm ensure that all eels purchased for restocking are sold before the end of the year as it is not profitable for them if this is not accomplished because too many restocking eels have been purchased. Grading is only done to separate out

	fish to prevent larger fish from damaging or bullying smaller fish and therefore preventing them from feeding. All fish designated for restocking are sent regardless of size and are normally all below 10 grams on average when sent.
<b>Score</b>	Pass: Responsible indicator