

Sustainable Eel Group (SEG) Standard Assessment

Palingkwekerij Koolen B.V.

Assessment against:

- **Component 1:** Core requirements.
- **Component 4:** Eel buying and trading.
- **Component 5:** Eel farming.

Completed by: Andres Fellenberg van der Molen	On-Site Visit: 4 November 2021	Report date: 28 December 2021
Reviewed and approved by:	Mr. David Bunt Sustainable Eel Group	Certification Body 6 January 2022

FINAL REPORT

Scope

This document represents the report completed following the 2021 audit carried out under the Sustainable Eel Group (SEG) Standard (Version 6.0a, Dec 2019) for Koolen B.V. This assessment has been conducted against Components 1, 4 & 5 of the standard.

The assessment is of a farming and trade of Eel located at Hongarijesedijk 12, 5571XC, Bergeijk, The Netherlands



1. Introduction

Bergeijk is a town and municipality in the Dutch province of North Brabant. The municipality has 18,800 inhabitants and a surface area of 103.22 km² (of which 0.70 km² water and over a quarter forest and nature area). The municipality of Bergeijk is part of the framework area SRE. The municipality of Bergeijk was created in 1997 by the reddivision of the municipalities Bergeyk, Luyksgestel, Riethoven and Westerhoven. The municipality is characterised by beautiful nature. In 2007, a nature plan was implemented. In 2013 the municipality of Bergeijk was elected as "one of the greenest villages of Europe".

The current farm, which was rebuilt in 2012, is the largest eel farm in the Netherlands and is part of the Nijvis Group. Nijvis consists of other facilities for purchasing, storing, cultivation, and processing eels and eel products in France, Morocco, the Netherlands, and Germany.

The Koolen B.V. farm consists of a number of control and cultivation systems for the different growth stages of eels. The three sections of the farm consist of circular tanks of various sizes fed by separate water systems, separating incoming batches of glass eels and fingerlings when necessary.

The farm has 144 tanks and can produce up to 600 tonnes per year. In addition to the 144 tanks, another 14 are used to prepare and store the eels before being transported to the customers. The majority of the Eel's time from arrival to sale is two years.

The farm is designed in an environmentally responsible manner, including energy-efficient heat exchange systems, oxygen production systems and minimal effluent discharge.



2. The assessment

The assessor was Andres Fellenberg Van der Molen from Green Partner Audits & Consultancy B.V, who visited De Palingfabriek B.V. on 4th of November 2021. The audit included the interview with Mr William Swinkels and the operation Manager Miss. Swinkels

2.1 Client Contact Details

Client Contact Name	William Swinkels Owner Palingkwekerij Koolen B.V.
Client Address	Hongarijesedijk 12, 5571XC, Bergeijk, The Netherlands
Client Email	
Client Phone Number	+31 024

3. Results of the assessment

The outcome of this assessment is as follows;

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		Responsible	1	1
1.4	Traceability				
	1.4.1	Incoming products, separation and segregation	Responsible	1	1
	1.4.2	Outgoing products	Responsible	1	1
	1.4.3	Record keeping and documentation	Responsible	1	1
1.5	Biosecurity & welfare				
	1.5.1	Eel Fishing	Not Applicable	0	0
	1.5.2	Eel buying & trading	Responsible	1	1
	1.5.3	Eel farming	Responsible	1	1
	1.5.4	Restocking	Responsible	1	1
	1.5.5	Wholesale / Retail / Processing	Not Applicable	0	0
			Total	9	9/9
Percentage Responsibility Score				100%	

Component 4: Eel buying and trading.		Auditor's findings	Weighting	Score
4.0	Segregation of certified and uncertified Eel	Responsible	2	2
4.1	The Glass Eel holding facility is a registered Aquaculture Production Business	Responsible	2	2
4.2	Mortality in storage facility	Aspiring	2	2
4.3	Mortality during transport and initial holding if transported to farm	Responsible	2	2
4.4	Water quality	Responsible	1	1
4.5	Handling and welfare	Responsible	1	1
4.6	Transport	Responsible	1	1
4.7	The required percentage of glass eels is being used for restocking	Responsible	2	2
Total			13	13/13
Percentage Responsibility Score			100%	

Component 5: Eel farming			Auditor's findings	Weighting	Score
5.1	The total mortality rate during the culture process is low		Responsible	2	2
5.2	The fish meal/oil ingredients in the feed come from a responsible source		Responsible	2	2
5.3	Feed is used as efficiently as possible		Responsible	2	2
5.4	Water quality		Responsible	2	2

5.5	There are minimal ecological impacts 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	1	1
5.8	Eels for restocking are not graded out slow-growers	Responsible	1	1
Total			12	12/12
Percentage Responsibility Score			100%	

Summary of assessment and scoring		
Component	Aspiring	Responsible
1	0	9
4	0	13
5	0	12
Total	2	12
Total Responsibility Score	34/34 = 100%	

4. Auditor conclusions

- **Component 1 General Requirements:** Palingkwekerij Koolen B.V. has scored 100% for Component 1; it should be considered **RESPONSIBLE** under the SEG standard.
- **Component 4 Eel buying and trading:** Palingkwekerij Koolen B.V. has scored 100% for Component 4; it should be considered **RESPONSIBLE** under the SEG standard.
- **Component 5 Eel farming:** Palingkwekerij Koolen B.V. has scored 100% for Component 5; it should be considered **RESPONSIBLE** under the SEG standard.
- **With an overall Responsibility score of 100%,** Palingkwekerij Koolen B.V. can be considered as **RESPONSIBLE** under the SEG standard and suitable for certification.

5. Recommendations:

It is recommended that the following improvements are implemented before the next audit:

1. Record all the company's social activities, including awareness and training about SEG and sustainability.
2. Add the SEG logo to Palingkwekerij Koolen B.V. printing and stationery, particularly the paper where the invoices are printed.

Best Practices

- Procure glass eels from only one supplier who proves the reliability of the eel and documents the whole process effectively, and is SEG certified.
- The company presents a high level of sustainability practices, including heat recovery, waste management, water management and sustainable building design.



6. Next Audit

After the audit, the client was assessed against the risk assessment set out in the methodology, set out in the table below.

Questions	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 (*) 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	Onsite Audit	Remote Audit	Remote Audit	Remote Audit	Onsite Audit
Standard Surveillance	Onsite Audit	No Audit	Onsite Audit	No Audit	Onsite Audit
Enhanced Surveillance	Onsite Audit	Onsite Audit	Onsite Audit	Onsite Audit	Onsite Audit


As the client has been seen to fall into the Standard Surveillance bracket, the next audit will be due in December 2023 (in 2 years) and shall be an onsite audit.



Andres Fellenberg Van der Molen
Accredited SEG Assessor

The tables below give the assessment for each of the criteria in the standard and a rationale for the scores given above.

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	The company 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	Responsible
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	The company's profits are paid into DUPAN on a range of 5-7%. This is a yearly contribution. Once a month, it is reported to DUPAN how much has been sold. €0.50 per kgs of round eels are then paid to DUPAN. In addition to its financial contributions, Mr Swinkels donate his time as part of the board of DUPAN, performing as treasurer and as well the chairman of NeVeVi, The Dutch Association of Fish Breeders. NeVeVi unites fish farmers in the Netherlands. The association consists of Dutch fish farmers of various fish species, including Eel. The association maintains contacts with science, education, government, trade partners and the entire broad field of aquaculture. <i>Refer to evidence 1:1:1</i>
Score	Responsible
Criterion 1.3: The organisation 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 organisation trades in 10 – 49.9% (by number) of certified responsibly sourced Eel and has the documentation to demonstrate that.
Discussion	The total amount of glass eels purchased in 2020 was 3.569.816 pieces. Palingkwekerij Koolen B.V. has only one suppliers: [REDACTED] which is a SEG suppliers. The company present sufficient [REDACTED] <i>Refer to evidence 1:1</i>
Score	Responsible

Criterion 1.4: Traceability	
1.4.1: Traceability - Incoming product, separation and segregation	
Responsible indicators	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Certified and uncertified eel products can be traced back to their source. • If segregation is not possible, there are clear and auditable records of the numbers of certified and uncertified eels entering the organisation at each facility • It can demonstrate through auditable records that the number of certified eels exiting the organisation in a year did not exceed the number that entered • If resolved through mass- or number- balance calculations, the margin of error does not exceed 5% or if a farm, the 2800 pieces per 1 kg of glass eels is applied.
Discussion	<p>All new eels owned by Palingkwekerij Koolen B.V. are certified and come from only one SEG suppliers. Therefore, the separation requirement between SEG and non-SEG is not considered starting from 2020. The glass eel from the supplier is already mixed because Gurruchaga delivers a</p>  <p><i>Refer to Evidence 1:1</i></p>
Score	Responsible
1.4.2: Traceability - Outgoing product	
Responsible indicators	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> - Includes an appropriate batch code - Includes a record of the quantity (no. & weight) of product and to whom it was sold
Aspiring indicators	<ul style="list-style-type: none"> • Documentation is well maintained. If resolved through mass- or number- balance calculations, the margin of error does not exceed 5% in the following (or if a farm, the 2800 pieces per 1 kg of glass eels is applied): • 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: <ul style="list-style-type: none"> - Includes an appropriate batch code - Includes a record of the quantity (no. & weight) of product and to whom it was sold

Discussion	<p>Palingkwekerij Koolen B.V uses correct and accurate batch coding for product labelling and invoicing, including the order number, batch identification and traceability numbers required by the Dutch authorities and customers. Palingkwekerij Koolen B.V supplier delivers complete documentation per batch, including the INTRA code and full traceability from the catch of the glass eel, including the names of the fishermen and their vessels. At the same time, Palingkwekerij Koolen B.V only has just one SEG supplier at the 'real or true' responsible eel level of [REDACTED] demonstrating Palingkwekerij Koolen B.V commitment to sustainable practices and the protection of Eel.</p> <p><i>Refer to Evidence 1:3</i></p>
Score	Responsible
1.4.3: Traceability - Record keeping and documentation	
Responsible indicators	<ul style="list-style-type: none"> 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	<p>The above requirements are met except that:</p> <ul style="list-style-type: none"> 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	<p>Palingkwekerij Koolen B.V keeps records for seven years to date, following Dutch regulations. The batch numbering of the supplier also accompanies eels received from an SEG source. The growth of fish is monitored regularly, and therefore the weight of fish within separate systems is monitored closely. Each sale of live eels is given a batch number defined by the company, specifying weight and size. A copy of this record is sent to the customer, while the original is kept for the company's internal records. Considering the records and onsite evidence, Palingkwekerij Koolen B.V has solid record-keeping, documentation, and internal traceability in place.</p> <p><i>Refer to Evidence 1:4</i></p>
Score	Responsible

Criterion 1.5: Biosecurity & welfare – Eel and eel products are provided with minimal risk of diseases, parasites and alien species

1.5.1: Eel Fishing: Biosecurity measures are adopted

Responsible indicators	<ul style="list-style-type: none"> The fishery conducts good biosecurity measures such as the disinfection and drying of nets and equipment between each fishing in different waters. OR: The fishermen only operate in the same river or estuary, with no risk of transferring diseases or alien species between catchments
Discussion	Not Applicable
Score	Not Applicable

1.5.2: Eel buying & trading: Biosecurity is present and disease is treated rapidly and appropriately

Responsible indicators	<ul style="list-style-type: none"> The use of chemicals follows legal requirements of the appropriate EU regulations and of the country concerned. The facility has the appropriate permissions to operate from the relevant licensing authority An effective and documented biosecurity plan is in place and there is evidence that it is being followed. Records are available showing regular monitoring of health and possible signs of stress according to the facility's plan (including the completion of microscope parasite checks) and daily mortality is recorded.
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	<ul style="list-style-type: none"> Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility.
Aspiring indicators	<ul style="list-style-type: none"> The use of chemicals follows legal requirements of the appropriate EU regulations and of the country concerned. The facility has the appropriate permissions to operate from the relevant authority An effective and documented biosecurity plan is in place and there is evidence that it is being followed. Eels are regularly monitored for health and possible signs of stress (although this might 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	<p>The owner and company's staff are regularly trained in hygiene and sanitation, which is a legal requirement. The volume of chemicals used is so small that the effect on the water quality is virtually non-existent. There are suitable biosecurity measures in place. No outside personnel are allowed onto the premises. Palingkwekerij Koolen B.V has all the relevant permits and licences to operate as a company following the provisions of the Dutch authorities for the cultivation, processing and sale of fishery products. The company holds permits issued by the Dutch Food Standards Agency and a veterinarian control under number [REDACTED] Palingkwekerij Koolen B.V has eliminated almost all use of medication and has focused on maintaining the health of the eels by guaranteeing an excellent level of water quality. Eels arriving at the facility are placed in separate systems to eels already present as a form of quarantine. The facility usually uses pH as a form of controlling disease outbreaks. In the remote case, that medication is required for the eels; this is defined via veterinary approval.</p>
Score	Responsible
1.5.3: Eel farming: Biosecurity is present, and disease is treated rapidly and appropriately	
Responsible indicators	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<p>Palingkwekerij Koolen B.V is listed by the Public register of Authorised aquaculture production businesses number [REDACTED] following the regulations of Article 6 of Directive 2006/88/EC implemented in Article 2.2.1 of the Dutch aquaculture Regulation, updated in April 2020. The company has eliminated all use of medicines and has focused on maintaining the health of the eels by ensuring an excellent level of water quality. In the unlikely event that medication is required for the eels, this is defined through veterinary approval. The company has a detailed daily record showing the monitoring of the health of the eels, including signs of stress and daily mortality.</p>

	Palingkwekerij Koolen B.V does have a UV system onsite, and the level of water quality used was onsite controlled during this 2021 audit. The nursery water does not contain any artificial additives. All water used in the nursery passes through a recirculation system. This means that all the water used is reused. This ensures extremely low energy consumption. The water in the tank is renewed constantly. The water passes through a filtration system and then returns to the tanks. Waste goes to the farm's own water purification system. The waste is separated from the water, and the water disappears into the sewage system. In addition, there are all kinds of heat exchangers and all the waste heat is recovered.
Score	Responsible
1.5.4: 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	The eels are under control concerning diseases; therefore, this is a part of the daily work process. The eels must pass the internal control before they leave the premises. Miss Swinkels directly control this process, and without her supervision, the eels do not leave the company. The company provides all documentation requested by customers and authorities in the international market appropriately. If the request is coming from clients outside The Netherlands, for example, Germany, a certificate provided by Wageningen University is provided, demonstrating the Eel provided being free of disease. In all cases, it is always the intention of the company to deliver eels that are free of disease in all instances. Considering that the eels come from a known source already controlled by SEG, it is possible to establish their traceability in case of sickness.
Score	Responsible
1.5.5: Wholesale / Retail / Processing: Hygiene Plans are followed and there are rare examples of infection	
Responsible indicators	Food processing hygiene plans are followed
Discussion	Palingkwekerij Koolen B.V do not process food. The company has all permissions to operate, and visually is easy to define Palingkwekerij Koolen B.V. facilities as adequately managed.
Score	Not Applicable

Component 4 - Eel buying and trading	
Criterion 4.0: Segregation of certified and uncetified eels	
Weighting: 2	
Responsible indicators	Certified and non-certified are kept separated, from point of collection through holding to sale and onward transport
No Aspiring indicators	
Discussion	The process of separation of SEG and non-SEG eels is not applicable for Palingkwekerij Koolen B.V considering season 2019-2020, as they only work with one SEG supplier and have a level of ■■■■ glass eel responsible. However, the company's internal procedure separates eels per batch delivered per supplier. <i>Refer to Evidence 4:1</i>
Score	Responsible
Criterion 4.1: The Glass Eel holding facility is a registered Aquaculture Production Business	
Weighting: 1	
Responsible indicators	The Glass Eel holding facility is a registered Aquaculture Production Business
Aspiring indicators	The facility is not a registered Aquaculture Production Business, but has credible plans to register within the next 6 months

Discussion	Palingkwekerij Koolen B.V is a company registered under the chamber of commerce of The Netherlands number [REDACTED] which establishes its registration as a fish processor under SBI number code 1020 following the policy and regulations set by national and EU Common Fisheries Policy (CFP) and rules for aquaculture.
Score	Responsible
Criterion 4.2: Mortality in storage facility	
Weighting: 2	
Responsible indicators	Mortality rate over the season is less than 2% on average.
Aspiring indicators	Mortality rate over the season is less than or equal to 5% on average but greater than or equal to 2%
Discussion	According to the information provided by Miss Swinkels, mortality is less than 2.0%, presenting an effective form of control. <i>Refer to Evidence 4:2</i>
Score	Responsible
Criterion 4.3: Mortality during transport and initial holding if transported to farm	
Weighting: 2	
Responsible indicators	Buyers source at least 90% of their eels from certified suppliers OR Mortality during transport and for the first week at the farm is less than 2% on average
Aspiring indicators	Buyers source 50% - 89.9% of their eels from certified suppliers OR Mortality during transport and for the first week at the farm is less than or equal to 3% on average but greater than or equal to 2% on average.
Discussion	The Glass eels purchased are sourced by a 100% SEG-certified supplier, and the eels in Palingkwekerij Koolen B.V are currently [REDACTED] SEG-certified, with the intention to achieve a 100%.
Score	Responsible
Criterion 4.4: 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 The facility operates a back-up system to ensure that water quality will not adversely affect survival rates in the case of an equipment failure
Aspiring 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) The facility has a minimum of a back-up generator and oxygen supply
Discussion	Water quality plays an essential role at Palingkwekerij Koolen B.V, as water control has made it possible to eliminate diseases and to avoid supplying the eels with medicines. The water is coming from a deep well, and it is constantly monitored. Ammonia, solids, pH, and oxygen levels are checked regularly. Palingkwekerij Koolen B.V has the appropriate permits related to groundwater rights. The company employ effective systems of filtration, resulting in clean breeding water. All water used in the nursery passes through a recirculation system. This means that all the water used is reused. This ensures extremely low energy consumption. <i>Refer to Evidence 4:3</i>
Score	Responsible
Criterion 4.5: Handling and welfare	
Weighting: 1	
Responsible indicators	Systems are in place and the facility is designed to keep handling to an absolute minimum Documented procedures are in place for handling, and handling, where necessary, is careful







	The infrastructure is designed to avoid injuries, and so that the use of nets is rarely necessary. When used, nets are small-mesh (1mm maximum) Eels are moved without being allowed to dry out.
Aspiring indicators	The facility may not be optimally designed, but systems are in place to avoid handling as much as possible within the constraints of the facility Handling, where necessary, is carefully planned and executed The infrastructure has been optimised as far as possible to avoid injuries Nets are small-mesh (1mm maximum) Eels are moved without being allowed to dry out.
Discussion	Palingkwekerij Koolen B.V facilities are optimised as much as possible to avoid handling to prevent injuries. The auditor checked the entire handling without presenting any substantial evidence of handling and eel welfare deficiencies. <i>Refer to Evidence 4:4</i>
Score	Responsible
Criterion 4.6: Transport	
Weighting: 1	
Responsible indicators	There is a Transport Plan in place to minimise travel time – this meets the Transport requirements for vertebrates Packing is done in a way that minimises handling, time and stress Eels are kept cool and wet with an adequate supply of oxygen The operator holds the relevant transport authorisations
Discussion	Palingkwekerij Koolen B.V transport process from aquaculture to customers is minimum. Customers usually come with their own vehicles to pick up the Eel, and Palingkwekerij Koolen B.V makes it easy for them to load the vehicles most efficiently and effectively without damaging the eels welfare. Handling is minimum, minimising time and stress. The client's vehicles are equipped with appropriate systems following all Dutch and European regulations in this matter. <i>Refer to evidence 4:4</i>
Score	Responsible
Criterion 4.7: The required percentage of glass eels is being used for restocking	
Weighting: 2	
Responsible indicators	The buyer can provide documented evidence that <u>they have sold</u> at least 60% for restocking the required target percentage of its glass eels from the last season for the primary purpose of conservation / escapement.
Aspiring indicators	The buyer can provide documented evidence that they <u>have reserved or made available at least 60%</u> of the required target percentage of its glass eels from the latest season available for the primary purpose of conservation / escapement, OR The buyer can provide documented evidence that it has made available glass eels to the maximum level possible within the constraints of the implementation of the EMP in that country OR The buyer can provide credible evidence that restocking will occur in the forthcoming season.
Discussion	Palingkwekerij Koolen B.V has sufficient evidence with which it has demonstrated that at least [REDACTED] has been acquired for the primary purpose of conservation/escapement. This means [REDACTED] pieces. This evidence is shown in the source document with the respective INTRA codes and documentation.
Score	Responsible




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	De Palingfabriek recorded mortality per tank manually and recorded daily per dead Eel. Considering that the life cycle process of the Eel in aquaculture before consumption is two years, it can be defined for this audit that the mortality rate reaches less than 3.3%. Dutch law dictates that dead eels are required to be disposed of and that this is payable by weight. Detailed records are maintained in kilograms of all dead eels collected from the tanks. <i>Refer to evidence 4:2</i>
Score	Responsible
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	<div></div> <i>Refer to Evidence 5:4</i>
Score	Responsible
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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Glass eel to fingerlings: 1.3 or less • Fingerlings to 200g: 1.8 or less • Large eels: 2.2 or less
Discussion	The feeding of the eels at Palingkwekerij Koolen B.V is crucial for the eels' health and the company's commercial success. Feeding is done through timed automated dispensers through a computerised silo-controlled system and handled directly by Miss Swinkels, who closely supervises this process to ensure no feed wastage. The feeding process is carried out in different ways depending



	<p>on the growth cycle of the glass eel. The first part of the cycle starts with glass eel tanks which are supplied with an automated system activated three times a day. The medium and large tanks use pendulum feeders, which are activated depending on the eel activity in the tanks. FCR figures were calculated for each size range identified in the standard as 1.0 - 1.1 for Glass eels to fingerlings and 1.3 - 1.5 for eels up to 200g and larger eels. Larger eels, which can exceed 1200 grams, have a higher FCR as stipulated in the reports, as they typically have a higher FCR, of course, than eels grown to 800g or more.</p> <p><i>Refer to Evidence 5:1</i></p>
Score	Responsible
Criterion 5.4: Water quality	
Weighting: 1	
Responsible indicators	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<p>Water quality plays an essential role at Palingkwekerij Koolen B.V, as water control has made it possible to eliminate diseases and to avoid supplying the eels with medicines.</p> <p>The water is constantly monitored, and ammonia, solids, pH, and oxygen levels are checked regularly. Palingkwekerij Koolen B.V has the appropriate permits related to groundwater rights. The company employ effective systems of filtration, resulting in clean breeding water. All water used in the nursery passes through a recirculation system. This means that all the water used is reused. This ensures extremely low energy consumption. Oxygen reserves are kept at the facility in case any of the systems require immediate saturation, should one of the oxygenation systems fail or require maintenance. Water quality monitoring is linked to alarm systems in case of any sudden incidents concerning water quality. In addition, the entire water circuit is connected to an emergency generator to ensure the eels' survival and maintain a constant water cycle in the event of a power failure.</p> <p><i>Refer to Evidence 5:2</i></p>
Score	Responsible
Criterion 5.5: There are minimal ecological impacts from effluent discharge	
Weighting: 1	
Responsible indicators	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<p>The management handles the discharge and water management, where the waste generated by the aquaculture process is effectively managed, and the energy recovery has been added to this. The waste is removed periodically and given to local farmers to fertilise their land.</p> <p>No records have been found to indicate any infringements regarding the quality of the water discharged from the installation.</p> <p>Palingkwekerij Koolen B.V. follows the municipality's plans as stipulated in the Municipal Sewage Plan (GRP).</p>

	Refer to Evidence 5:3
Score	Responsible
Criterion 5.6: Grading, slaughter and transportation are carried out with respect to welfare	
Weighting: 1	
Responsible indicators	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<p>Palingkwekerij Koolen B.V has a 4-size grading machine. This machine fulfils the function of sorting the eels in an efficient way where the air pump moves the eels. The company does not have a slaughtering process in the facilities. Live eels leave the Palingkwekerij Koolen B.V facility via logistical transports, which are entirely provided by Palingkwekerij Koolen B.V customers. Cooling before transport is carried out in separate tanks following grading where eels are lowered in temperature gradually from 24°C to around 14°C over one week to habituate and purge eels before final weighing, loading and transportation and processes do not allow to let the eels go without water or dry out.</p> <p>Refer to evidence 4:4</p>
Score	Responsible
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	<p>In 2020, the total purchase of glass eel was [REDACTED] 1.106.000 pieces for restocking, but Koolen B.V. added 438.101 pieces from consumption to restocking. This equates to [REDACTED] for the year based on the exact number of pieces brought to Palingkwekerij Koolen B.V. There is sufficient onsite information regarding the quantities and traceability of these purchases made from SEG certified suppliers.</p>
Score	Responsible
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	Eels purchased for restocking do not undergo sorting processes. They, therefore, reflect and represent the actual state of glass eels from where they were caught and are kept separate from eels intended for processing and human consumption. Consequently, the size range received and the quantities of eels for restocking reflect 100% that of the age group received, unaltered and unmanipulated.
Score	Responsible

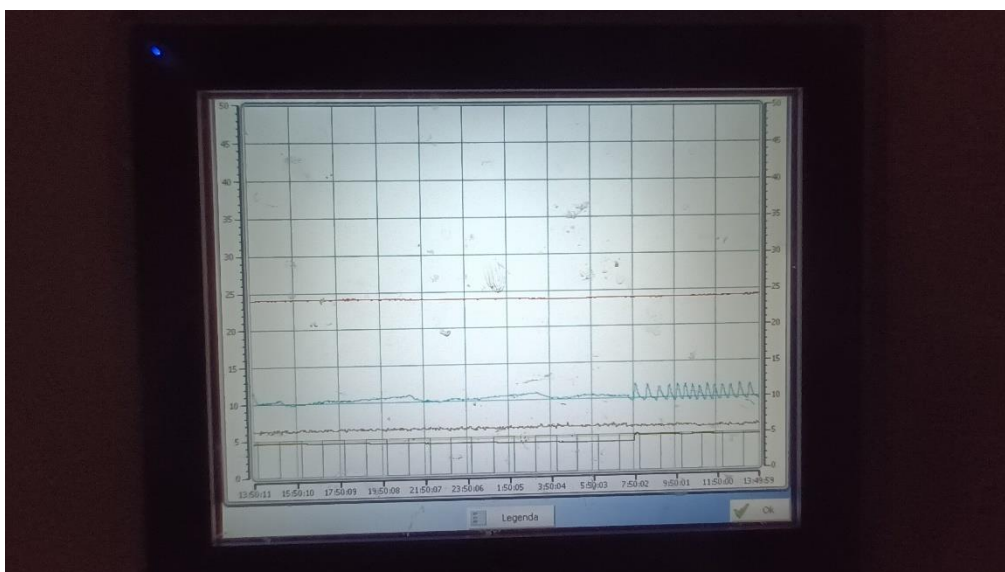
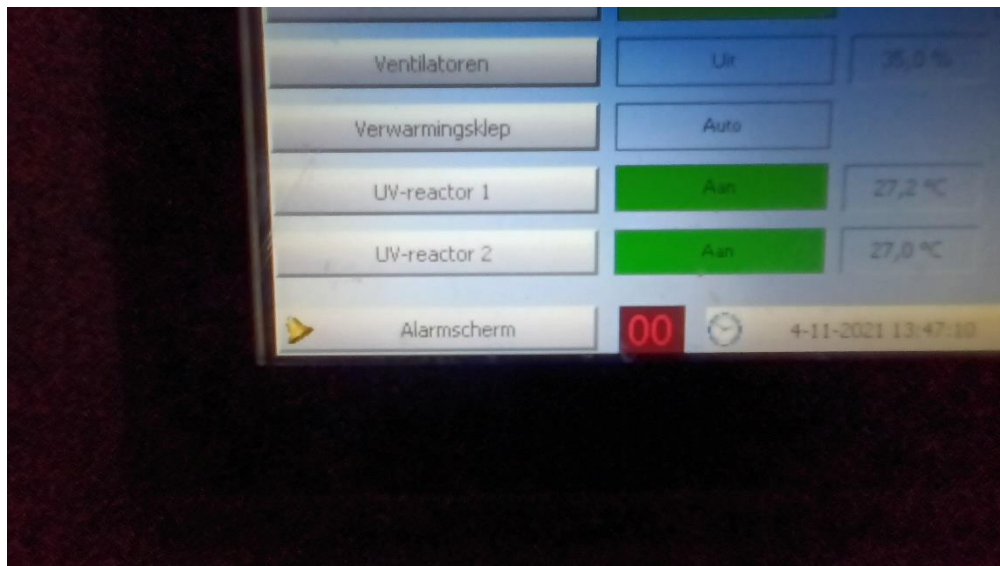
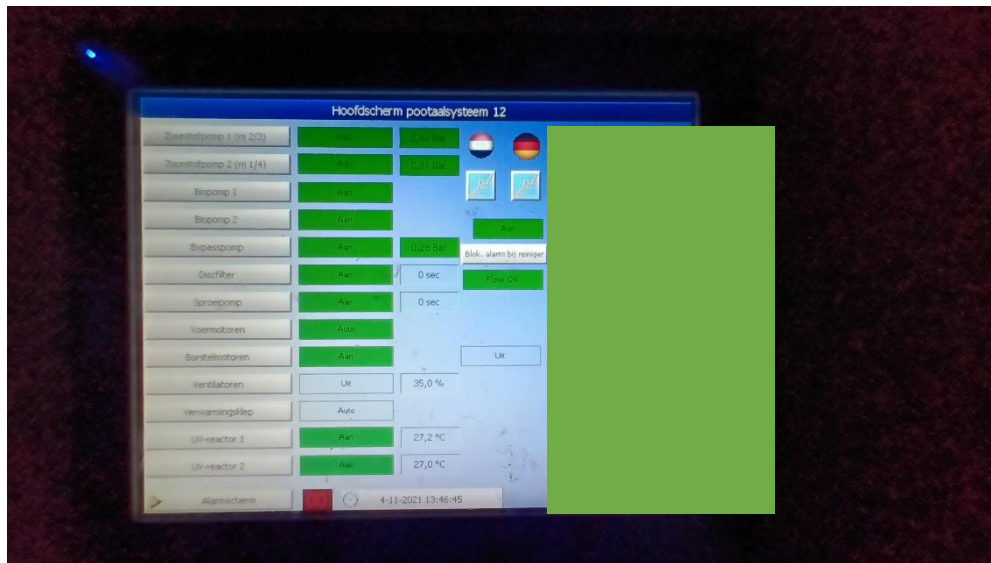
8. Onsite Evidence per Component

Component 1			
Evidence	Evidence	Evidence	Description
1:1			100% of SEG Suppliers The sample year 2020  responsible eel
1:1:1	 <p>In Stichting DUPAN zijn de belangenorganisatie voor binnenvisserij en kleinschalige kustvisserij (NetVISwerk), de Nederlandse Vereniging van Viskwekers (NeVeVi) en de Nederlandse Vereniging van Palinghandelaren (NeVePaling) verenigd.</p> <p>Het bestuur bestaat uit de volgende leden:</p> <div data-bbox="237 981 432 1238">  </div> <p>William Swinkels, penningmeester Swinkels is algemeen directeur van Nijvis Group en tevens voorzitter van de NeVeVi.</p>		Palingkwekerij Koolen B.V presents to the public via their webpage the commitment to Eel.
1:2			The company has separate tanks, and each batch is managed separately and is not mixed to avoid cross-contamination between eels. Palingkwekerij Koolen B.V can define the source per batch and the eel time per tank.

1:3		Invoices to Palingkwekerij Koolen B.V and delivery orders specifying batch, order and codes, including internal registers and internal traceability.
1:4	 	Receive documentation batch and electronic and manual documentation available on site.

Component 4			
Reference	Evidence 01	Evidence 02	Description
4:1			The tanks are clearly separated. The eels are not mixed in each tank. Each tank represents individual, isolated batches.
4:2			Mortality is controlled in detail with a daily log. Each tank presents individuals who register and maintains a low mortality level.

4:3



The water comes from a deep well. The water quality and control are monitored on a daily basis. UV systems are present and operational on the facilities.






4:4



The handling of the eels is minimal, and the company takes care to minimise contact with the Eel. The machinery is suitable to minimise possible damage to the Eel.






Component 5			
Reference	Evidence 01	Evidence 02	Description
5:1	  		<p>The tanks are clearly separated. The eels are not mixed in each tank. Each tank represents individual, isolated batches.</p>

5:2



The water comes from his deep well.
The water quality and control are monitored daily.



5:3		The waste is removed periodically and given to local farmers to fertilise their land. A heat recovery system is present.
5:4	 	Palingwekerij Koolen B.V suppliares 

