Sustainable *Eel* Group

The Sustainable *Eel* Standard

Version 6.0, Draft 1. For consultation

2 June – 31 July 2017

Photo: © Stephen Cogbill

www.sustainableeelgroup.org

Version 6.0
Draft 1
June 2017

The Sustainable *Eel* Standard

Versions Issued

Version No.	Date	Description of Amendment
1	November 2010	Initial version prior to pilots
2	January 2011	Amendments following several pilots
3	13 May 2011	Amendments to standard following further pilots
4	15 Nov 2012	Addition of Traceability section, amendment of standard
5	21 June 2013	Review of all components of the standard, new draft prepared for review.
5.1	17 October 2016	Update to account for changes to SEG website as.org instead of.com
5.2	25 November 2016	Removal of link to extant document
6.0 Draft 1	1 June 2017	First draft of new Version 6.0, published for 2 months consultation

This Standard is the property of the Sustainable Eel Group. This version is a substantial amendment to Version 5 and is published for consultation.

To comment on this document, download this form (http://www.sustainableeelgroup.org/wp-content/uploads/2017/01/SEG-Standard-FeedbackV1.2.docx) **and send it to standard@sustainableeelgroup.org by midnight on Monday 31 July.**

Version 6.0, draft 1
1 June 2017

For further information please see: www.sustainableeelgroup.org

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Cover photo: Dip net used for Glass eel fishing, Rivers Severn and Parrett, UK. © Stephen Cogbill

Contents

1. Applicability and responsibility

The Sustainable Eel Group is responsible for the content and publication of this standard. The latest version is published on our website at http://www.sustainableeelgroup.org/seg-standard-2/.

Users of the standard are responsible for ensuring they are using the latest version.

In the current review, the planned timetable is to publish the new version, Version 6.0, in November 2017. The development procedure and timetable is published at: http://www.sustainableeelgroup.org/standard-development/.

Until Version 6.0 is published, Version 5.2 is the current standard to be applied.

2. The Sustainable Eel Group – our purpose

The Sustainable Eel Group is a Europe-wide collaboration of scientists, conservation groups, the commercial sector and advisors, dedicated to the recovery of the European Eel. We are a not-for-profit, non-government organisation, formed in the United Kingdom. Our influence must be Europe-wide to help the European Eel, which, unlike eg. Salmon, is believed to be a single, mixed, genetically similar panmictic stock.

Our Vision

Healthy wild eel populations distributed throughout their natural range fulfilling their role in the aquatic environment and supporting sustainable use for the benefit of communities, local economies and traditions.

Our Mission

To provide the respected leadership alliance that enables and promotes the joined-up conservation and management of the eel in the Member States of Europe and beyond, linking all interests in an open and effective process to achieve SEG's Vision.

These are defined in more detail, with the strategies designed to achieve these, in our Theory of Change.

Our work and this standard is designed to support the European Council Eel Regulation EC 1100/2007 for, as described in Article 1, '*the protection and sustainable use of the stock of European eel*'.

3. The Purpose of this standard

The Sustainable Eel Standard has been developed as part of the solution for the sustainable recovery of the European Eel. The objectives of this standard are defined in the Terms of Reference for its development. They are summarised as follows:

Objectives

- The principal objective of the standard is to help to meet the vision defined in the Theory of Change, ie:-

to maximise the contribution of eel fishers, ranchers, aquaculturalists, traders and consumers of eel products to the restoration of healthy eel populations, distributed throughout their natural range, fulfilling their role in the aquatic environment and supporting sustainable use for the benefit of communities, local economies and traditions.

- The standard is designed to ensure that implementation at the level of each individual certificate holder has a ***net benefit on eel populations.***
- The standard will support the collection and availability of the data necessary to monitor-the efficacy of the Standard in achieving its objectives.

The standard is also designed to:

- Enable operators to demonstrate high and responsible standards and their commitment to sustainability
- Encourage high and responsible standards through the supply chain, from fishery to market
- Discourage unsustainable practices and unsustainable markets
- Provide confidence to retailers and consumers who wish to buy responsibly

4. Scope

The SEG standard applies to fishing, eel ranching and aquaculture of the European Eel, *Anguilla anguilla* (L.) and to the trade and transportation of eels and eel products.

It includes provisions for the monitoring of the trade in eels and eel products from source to end consumer.

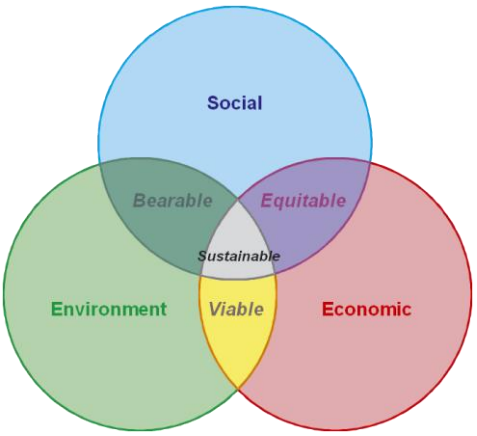
It includes provisions applicable to other organisations to be recognised in their support of the objective of healthy aquatic ecosystems.

5. Sustainability and the European Eel

We have developed this standard in line with the principles of the Brundtland Convention's definition of sustainability i.e.

> '*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*'.

This concept balances the needs of the species, communities and economic growth as represented in the following diagram:



We recognise that the term 'sustainable' cannot be truly applied to the European Eel until, over several generations and decades, the recruitment of glass eels and escapement of silver eels are at levels that are considered biologically safe. We believe this recovery will not be achieved without major interventions, short and longer term measures, including regulation of the fisheries, restocking, trap and transport, habitat improvement and, most importantly, the unblocking of migratory pathways – upstream and downstream. These interventions at a European scale are not achievable without a dynamic Eel sector.

This standard has been designed to promote and ensure the most responsible methods of fishing, transport and farming, such that net benefit can be demonstrated and the objectives of the EU Eel Recovery Plan and full sustainability will be achieved more quickly.

In previous versions of the standard we looked to the EC Regulation (1100/2700) for an objective and external definition of sustainability for eel fisheries. The regulation requires each Member State with eel stocks to produce eel management plans (EMPs) with the long-term objective of '*reducing anthropogenic mortalities so as to permit with high probability the escapement to the sea of at least 40 % of the silver eel biomass relative to the best estimate of escapement that would have existed if no anthropogenic influences had impacted the stock'* (Article 2 paragraph 4). The EMPs were subject to approval by the European Commission and an external review body – the International Convention for the Exploration of the Seas (ICES). EMPs were introduced in 2009. They were reviewed in 2012, 2015 and will be again in 2018.

Based on this objective, the Standard applied and developed two definitions of a sustainable eel fishery:

1. (a higher level definition) – the fishery removes eels from a catchment where the 40% escapement target is being met with reasonable probability; or
2. (a lower level or interim definition) – the fishery removes eels from a catchment where the EMP is approved and being implemented.

However, experience of applying these objectives since 2010 has provided the following conclusions:

1. Progress with EMPs has been very mixed. Some countries have made good progress and many have made very little. On the whole, progress with Eel Management Plans has been poor – particularly where expensive engineering is required to enable migration past the many thousands of dams and other obstructions across Europe. Likewise, progress with the Water Framework Directive has generally been poor. This was due in part to the financial crisis of 2007/2008. It is also partly due to limited action to enforce the Regulation and challenge countries to make progress.

2. In addition, the 40% escapement target has come under increasing challenge. Some make the observations that:
    - Measuring eel stocks is notoriously difficult to do accurately. So, many consider that it is impossible to calculate what the stock was before anthropogenic influences, and therefore that the 40% target, whilst a best estimate, is difficult to measure. Other targets might be more appropriate
    - With European waters so degraded (freshwater habitat availability is perhaps 10% what is should be), that seeking a 40% escapement target from a 10% healthy environment for eel is unachievable.

An example of this anomaly is where there is a dam on the river, preventing access to most of the catchment (see the example for the Arzal, below). The catchment won't be meeting its escapement target and, until migration past the dam is facilitated, is unlikely to be progressing with its Eel Management Plan. However, it makes sense in this circumstance to fish for the glass eels to provide net benefit, rather than the majority dying and providing limited benefit.

We look to the European Council and ICES to review these targets and also to the EC to be more robust in enforcing the Eel Regulation. Any changes from the review of EMPs in 2018 will be built into the standard afterwards.

In the mean-time, we will continue to use the targets and definitions developed by these governing and scientific bodies as best we can. We seek comments and ideas from consultees on alternative criteria and indicators of identifying sustainable sources of eels.

These are the definitions we have used to correspond to our score indicators below. We have taken the same approach with our definition of sustainability (see below).

The Sustainable Eel Group has defined a sustainable eel fishery as one which is:-

> *'Managed in line with an approved EU Eel Management Plan'*

and defined a sustainable eel product as:-

> *'Having been sourced from a sustainable fishery and supply chain, caught in an environmentally sensitive manner and (in the case of aquaculture) has been grown or ranched in conditions that meet European standards for health, bio-security, welfare and the environment'*

6. Net benefit

A key objective for the standard is to ensure that implementation at the level of each individual certificate holder has a ***net benefit on eel populations.*** Here we define and describe what this means.

We apply two definitions of net benefit, one of which has a higher threshold than the other, permitting scope for separation of scoring in applying the standard, and also providing a mechanism for continuous improvement.

Definition 1. Affiliated with a 'Responsible' Level of compliance

Sustainable Eel Standard-compliant activities, eg. fishing, have a net benefit to eel populations compared to non standard-compliant activities.

In this example, we consider that certified practices are more beneficial or less damaging to eel populations than non-certified practices.

Definition 2: Affiliated later with a 'Sustainable' Level of compliance

Sustainable Eel Standard Compliant activities, eg. fishing, have a net benefit on eel populations compared to there being no eel sector – eg. to there being no legal fishing.

In this example, we consider that certified practices result in or contribute to a net benefit to eel populations than if there was no commercial activity for eel at all; ie. that the commercial sector actually provides a net benefit to eel stocks. This will seem counter-intuitive, particularly to those who aren't fully aware of the intricacies of the eel sector. The following describes the assumptions made to reach this assessment:

Assumptions *

We make the following assumptions to inform our definitions of Net Benefit. Some of these are fact, some are based on best available science, some are un-tested assumptions based on common sense or best available knowledge. All are open to challenge, which we welcome, to have an open and transparent debate to inform a sustainable future for the eel.

- Eel recruitment is from 'Glass eels' reaching estuaries and rivers in Europe, having drifted across the Atlantic from the Sargasso Sea on the Gulf Stream.
- Recruitment on western coasts – eg. west of Portugal, Spain, France and UK is greater than on eastern coasts. West coasts are closer to the Gulf stream and the Sargasso Sea.
- In some west coast estuaries, the geography is such that more glass eels are concentrated than are needed to populate the catchment. For example, in the Parrett in Somerset, UK, the glass eel run is estimated to have been 1 – 5 tonnes (3M – 15M glass eels) per year in recent years. Fisheries scientists have calculated the amount required to populate the Parrett catchment to be 400kg (1.2M glass eels). Those fish in excess of that 400kg would die through density-dependent mortality and predation. Annual catches in the licensed fishery have averaged 0.5 - 2 tonnes per year (1.5M – 6M fish) over the same period. **The fishery effectively takes some of the 'surplus' eels that would otherwise have died through density-dependent mortality and predation** (albeit feeding other wildlife in the ecosystem)
- In some other west coast estuaries, there are barriers to migration such as hydropower and water supply dams. An example is the Arzal in Brittany, France where there is a dam at the head of the tide, blocking access for eels to the whole catchment. These glass eels have nowhere to go in the catchment and the majority (99%) are likely to die – the majority are eaten by seagulls as they wriggle up dam walls. So, they are caught (an average of 6 tonnes, 18 million eels, per year) and put to better use, eg. restocking, elsewhere. Whilst we would prefer to see such migration pathways opened up to make

better use of the Arzal catchment, until there is investment at such locations, this is a more sustainable use of the stock in the mean-time.

- Fishing for these surplus glass eels and making good use of them in the supply chain in the sector is the basic premise for the commercial eel sector being able to provide net benefit to eel populations.
- The majority (at least 60%) should go for restocking. The remainder go into aquaculture where high survival rates (90% - as opposed to 5 – 10% in the wild) and high growth rates produce high quality food for human consumption.
- Farmed eels have often proven to be less contaminated with dioxins and PCBs than eels from the wild.
- Use of farmed eels also reduces the pressure on wild yellow and silver eels from fisheries where the eels are destined to become the spawning escapement.
- **Overall, the use of surplus glass eels enhances and provides net benefit to recruitment and population elsewhere in Europe, whilst also providing a market for high quality and high value food**.

SEG certified suppliers will have to demonstrate, through independent assessment, how they play their part in providing this Net Benefit in the supply chain.

* Future drafts and the final version will include references to the evidence for these assumptions.
NB. ICES reports and other reviews have challenged the effectiveness of restocking, which is at the heart of these assumptions. The current consensus is that it is more effective the closer the stocked location is to the source of the eels. Whilst it is a key feature of so many Eel Management Plans, and until the scientific evidence reaches a conclusion, this standard will assume that it is effective.

7. Other Standards and ISEAL

In developing this standard, we have referred to other respected fisheries standards operated by the Marine Stewardship Council, and the Aquaculture Stewardship Council and adopted good practice from them. Where appropriate we aim to be compatible with existing standards rather than develop new ones, to reduce the burden on those seeking certification. For example, if an eel farm is already certified under ASC, that assessment should be able to be considered under the SEG standard assessment.

The Sustainable Eel Group is seeking membership of the ISEAL Alliance, to give independent assessment and credibility of our aims, objectives and this standard. The 2017 review of the Sustainable Eel Standard is being conducted according to ISEAL principles as part of the process to support that membership.

8. Development process

The development and review of the standard is governed by the procedure published on our website at: http://www.sustainableeelgroup.org/standard-development/.

9. Continuous improvement

The standard itself is open to continuous improvement. Version 6 will be the sixth substantive version of the standard since it was first introduced in November 2010. It is improved each time to:

(1) take account of latest best practice and available scientific knowledge and

(2) to raise the bar on responsibility and sustainability across the sector.

In addition, the standard is designed to require those certified to demonstrate continuous improvement in their practices, as measured between successive audits and assessments.

Collectively, these aim to continuously raise the standards applied in the eel sector to provide maximum protection and benefit to the eel.

10. How the Standard works

10.1 Structure

The Standard is structured as follows:

Heading	Description
Component	The broad topics of the standard, the different parts of the eel sector
Issues	The challenges in each component that the standard aims to improve or address
Notes	Guidance, explanation, clarification or definitions on how to interpret and use the indicators
Benefits	The positive impact or benefit that this part of the standard is designed to make
Rationale	The reasoning behind the impact /benefit – how that benefit will work
Criteria	The tests against which the organisation will be assessed
Indicators	These are measures that complement the criteria to help indicate if, and to what level, the criteria are being met
Targets & Measures	These are performance or 'impact' measures for each component – to help monitor the effect of the standard in its contribution to Net Benefit

10.2 Components

The eel sector is composed of many parts, starting with fishing, through transport, holding, and farming to restocking or retail supply to the consumer. This standard is designed for each part of the supply chain to show that is achieving the highest standards and is acting responsibly and sustainably, contributing towards net benefit for the eel.

The Standard is divided into the following components:

Component 1: Core requirements:
- Commitment to legality and sustainability
- Trading in sustainably sourced eel
- Traceability
- Biosecurity

Component 2: Glass eel fishing

Component 3:	Yellow and silver eel fishing
Component 4:	Eel buying and trading
Component 5:	Eel farming
Component 6:	Restocking
Component 7:	Wholesale and retail supplies
Component 8:	Contribution to Healthy Aquatic Ecosystems

Component 1, 'Core Requirements', must firstly be met by any organisation that wishes to be assessed against any of the other components. This has no exceptions and is mandatory.

After meeting Component 1 an organisation must then achieve a pass under all the other components which apply to them. For example, a company that both buys and sells glass eels and cultures them, would need to pass both Component 4 – Glass Eel Buying & Trading, and Component 5 – Eel Farming.

10.3 Methodology

The assessment is to apply to (1) the organisation assessed and (2) to a traceable certified source of eel. So, in future, all batches of sustainably sourced eel will be labelled such:

This is a change to the previous Standard where organisations were certified based on demonstrating that they were meeting the standards needed to have the ability to provide certified eel. The new Standard will only apply to those who achieve high standards and have a traceable supply of certified eel.

Each component consists of a series of criteria for which there are two scoring indicators: Gold and Silver. These levels equate to the two levels of Net Benefit define in Section 8, above.

Organisations must pass all criteria at least the silver level for a certificate to be awarded. Failure of any one criterion will result in failure to achieve the standard. The Certification Body can consider providing a conditional pass for marginal fails where there is a credible plan to take corrective action and receive re-assessment within a reasonable timescale.

Either:

Organisations with any one Sustainable indicator pass will achieve a Sustainable level certificate award. or:

Organisations with a majority of Sustainable indicator passes will achieve a Sustainable level certificate award. or:

Organisations only with all Sustainable indicator passes will achieve a Sustainable level certificate award.

In any case, assessments and certificates will report the number of each Sustainable and Responsible indicators achieved to indicate the extent to which they have achieve the standard.

Some criteria may be weighted, to take account of more important aspects of the standard.

Assessments against the standard are carried out by an independent assessor working for the Certification Body (independent of SEG, appointed under contract by SEG), who must follow the requirements set out in the Methodology. Awards are made by the Certification Body under agreement and an assurance process with SEG. A surveillance audit process is in place to monitor the on-going performance of certified organisations, and any certification under the Standard may be suspended or removed from the

organisation concerned if the requirements of the Standard are breached. These are described in more detail in Section 12: Governance.

11. The Standard

Each component of the standard is set out in this section. Guidance notes are provided where supplementary explanation or clarification may be required.

Component 1 – Generic requirements	
Criterion 1.1: Commitment to sustainability & legality	
Issues	Illegal trade and unsustainable practices appears to have increased in recent years as supply has diminished with reduced stocks, competition has increased and, whilst export out of the EU has been banned, demand from Asia has encouraged an illegal market (trafficking). SEG is clear that the road map for recovery of the European eel population, as set out in the EU Regulation, cannot be followed unless all commercial activity is carried out in full compliance with the law and in full transparency. SEG also condemns some activities which, while not illegal, are not in the interest of recovery of the European eel population. The assessor should evaluate the full range of activities of the organisation which relate to eels. Activities should be judged on a case-by-case basis, but activities such as involvement with unregulated European eel fisheries outside the geographical scope of the EU Regulation (eg. in North Africa), except for purposes relating to conservation, would be considered by SEG as unsustainable.
Notes	The requirements in this component of the standard must be met by any organisation wishing to be certified against any other part of this standard, regardless of the specific nature of its activity.
Benefits	• Discourage and reduce illegal practices and trading • Discourage and reduce unsustainable practices • Increased commitment to sustainable recovery of the European Eel
Rationale	By encouraging a legal and sustainable market via the SEG Standard, illegal and unsustainable practices will be discouraged and phased out.
Targets & Measures	• The illegal trade (measured as the unaccountable reported catch in Europe) reduces by 10% per year over the next 10 years. • In 10 years (2027) the level of illegal trade has reduced from 40% of the total catch to less than 5%.
Sustainable indicators	For at least the past three years: The organisation has been a member of SEG; All trading and commercial relationships are aligned with SEG goals; there have been no prosecutions for illegal activity and no current investigations.
Responsible indicators	For at least the past 12 months: The organisation has been a member of SEG; all trading and commercial relationships are aligned with SEG goals; there have been no prosecutions for illegal activity and no current investigations.

Criterion 1.2: The facility trades in certified sustainably sourced eel	
Issues	In previous versions, the standard could be achieved by demonstrating the procedures and processes to have the ability to trade in certified sustainably sourced eel. This caused some confusion as it made it difficult for traders to know who was holding certified product. The new standard intends to give assurance and clarity that those who hold the standard are achieving the high standards expected, and have supply of certified sustainable eel, traceable back to the fishery.
Benefits	• Improved clarity over the purpose of the standard • Increased take-up of the standard • Increased market share for certified eel and decreased market share for uncerified eel
Rationale	With the focus on supplies rather than just processes, we anticipate greater demand for certified sources and reducing demand for uncertified sources, bringing an increasing proportion of businesses into the sustainable agenda.
Targets & Measures	• The number of businesses achieving the standard increases by 15% per year, over the next 10 years, from 14 now, to 60 in 2027 • The proportion (by weight) of the market that is from certified sustainable sources increases by 15% per year, from 5% now to 75% in 2027
Sustainable indicators	The facility has been trading only in certified sustainably sourced eel for at a fishing season, and has the documentation to demonstrate that.
Responsible indicators	The facility trades in both certified and non-certified sustainable eel or has been trading in only certified eel for less than as fishing season
Criterion 1.3: Traceability	
Issues	Good record keeping that can be audited is essential to be able to provide the evidence that the claims a business makes for its products are genuine. Customers seek the assurance of the SEG standard to show that the product they are buying is what it is claimed to be, i.e. from certified sustainable sources. However, no audit system is criminal-proof and it is open to fraud; hence spot-checks and vigilance by suppliers and customers will be required to maintain the credibility and security of the standard.
Notes	**If the client has demonstrated Traceability via another standard, that evidence can be used here** ***Incoming Product*** The client will need to have full traceability and provide access to access to the certificates of all certified suppliers with whom they deal, to prove to the auditor that they are certified. These will need to be backed up by incoming invoices from these suppliers showing the purchase of SEG Certified product. ***Separation and Segregation*** Separation can be achieved through physical or temporal separation. However it is done, it must ensure that mixing will not occur. Products cannot contain any non-certified eel (all eel-based ingredients must come from an SES certified source). ***Outgoing Product*** It is a requirement that all products that wish to be labelled as meeting the Sustainable Eel Standard (SES) also carry the relevant logo. The use of the logo will also need to be

	approved through the signing of an SES logo licence agreement prior to its use. Organisations will need to use the 'SES' prefix to identify products as certified on labels and invoices. Invoices will also need to have the quantity of certified product and show the SES batch code. This code needs to link clearly to the certified product (so if non-certified product is also included on the invoice, it is clear that this product is not included). eg. SES001/01. This code refers to products showing the 'SES' prefix and states that the eel product has been certified as sustainable against the Sustainable Eel Standard. It is not required that end-consumers are provided with an invoice meeting these requirements but they should receive documentation (receipt and product packaging) showing that the product is SES certified. Records will still need to be kept regarding the quantities sold to end consumers. A separate document explaining batch coding is available from the SEG website. ***Record Keeping and Documentation*** The key to traceability is good record-keeping. Organisations will need to be able to produce records that allow for the tracking of product throughout their ownership. They will also be required to produce records that allow an auditor to view the quantity (in weight) of product that has been bought, lost and sold. The auditor will want to be able to ensure that the amount of certified product leaving the Chain of Custody is the same or less than the corresponding amount bought. Note glass eels shrink during storage (they don't feed), so weight change is an important element of rectifying 'eels in' with 'eels out' for a batch. However, for this case there is a trade-off between frequent record-keeping and mortality induced by handling so that good husbandry dictates that handling is minimised – this means weighing only when necessary.
Benefits	• Assurance to customers that they are purchasing genuine certified product • Credibility of the standard • Increased market share of certified eel and reduction of uncertified eel • Increasing traceability through the supply chain leading to a reduction in illegal exports
Rationale	Traceability, auditable good record keeping, trust and honesty are core to the standard working. From experience, a minority are likely to abuse the system, but, through audits and reporting, they will soon find themselves excluded.
Targets & Measures	• Auditors report a high confidence (90%+) in the quality of records of a high proportion (90%+) of those assessed • All those handling certified eel are using the SES logo to label the product and do so correctly • Reports of transgressions are handled promptly and fairly
1.3.1: Traceability - Incoming product, separation and segregation	
Sustainable indicators	The organisation is completely transparent and deals only in certified eel, and operates a system which allows incoming eel products to be traced back to a certified source.
Responsible indicators	The organisation deals in both certified and non-certified eel. Certified eel products can be traced back to a certified source. It operates a system which ensures that the product remains separated at all stages from arrival to dispatch from non-certified eel products AND the organisation ensures that any products wishing to make a claim as certified do not contain any non-certified eel-based ingredients.

1.3.2: Traceability - Outgoing product	
Sustainable indicators	The organisation only labels certified products with the Sustainable Eel Standard (SES) eco-label once it has been approved to do so through the signing of an SES eco-label licence agreement. All product to be sold as certified by an organisation meets the following criteria: • Any product labelling shall be accompanied by the SES logo. • Products shall be accompanied by an invoice which: - Includes the relevant SES batch code in the product description; - Includes a record of the volume/quantity of product and to whom it was sold; - Includes the SES batch code on the invoice • The SES batch code must be clearly related to the certified product only
Responsible indicators	The above requirements are met except that: ?? Not sure there is an acceptable lower indicator?
1.3.3: Traceability - Record keeping and documentation	
Sustainable 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 eel in each batch delivered to a buyer to be connected back to a water, a time period (maximum duration one month) and specific fisherman/vessel. • 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.
Responsible indicators	The above requirements are met except that records have been maintained for less than three (3) years

Criterion 1.4: Biosecurity – Eel and eel products are provided with minimal risk of diseases, parasites and alien species	
Issues	Transporting live fish carries with it the real risk of transporting other organisms, and therefore the risk of spreading disease and invasive species, whether into the wild or into an eel farm, with disastrous consequences for the environment or the business. Examples include the parasites such as the swim-bladder nematode, *Anguillicola crassus*, viruses such as EVEX (Eel Virus European X) and alien species such as the invasive shrimp, *Dikerogammarus villosus*. At processors, the preparation of food requires a fully documented hygiene system to ensure food is fit for human consumption. Good biosecurity is important for any business, and this standard is intended to provide assurance, that the supply chain applies high standards and with minimal risk of spreading disease and alien species. **However, whilst the standard can help to minimise risk of spread, it cannot eradicate or prevent the spread of these organisms**.
Benefits	• Minimise the risk of the spread of disease and alien species • Reasonably high level of assurance to customers that certified eels are safe to buy
Rationale	By requiring all section of the supply chain to seek assurances on the bio-security of those they purchase from, and applying their own high security standards, this will maximise the safety and security of products from source to end supply.

Targets & Measures	• All suppliers have high quality, effective, bio-security plans • All customers provide and seek evidence of bio-security before buying • There are no, or very rare, examples of a disease or alien species associated with a batch of certified eel
Eel Fishing: Biosecurity measures are adopted and the fishery has had rare instances of disease	
Sustainable indicators	The fishery conducts good biosecurity measures such as the disinfection and drying of nets between each fishing trip. There have been no instances of disease or alien species from the fishery in the past 5 years.
Responsible indicators	The fishery conducts good biosecurity measures such as the disinfection and drying of nets between fishing from different waters. There have been no instances of disease or alien species from the fishery in the past 2 years.
Eel buying & trading: Biosecurity is present and disease is treated rapidly and appropriately	
Sustainable indicators	An effective and documented biosecurity plan (including the washing and disinfection of equipment) is in place AND records are available showing regular monitoring of health and possible signs of stress (including the completion of periodic microscope parasite checks) AND records are maintained in relation to the name, administrator, amount, dates and reason for use of any medicines and/or chemicals used in the facility AND the use of chemicals follows legal requirements of the appropriate EU regulations and of the country concerned. Water, supplies of eel, and use of equipment are managed such that it is not possible to infect one tank or batch of eels from another. The facility has the appropriate permissions to operate from the relevant licensing authority and there have been no bio-security issues in the past 5 years. The facility provides health check certificates to show batches being free of disease and alien species
Responsible indicators	The facility follows bio-security measures (including the washing and disinfection of equipment) although this is not documented AND eels are regularly monitored for health and possible signs of stress (although this might not be documented) AND records are maintained in relation to the name, administrator, amount, dates and reason for use of any medicines and/or chemicals used in the facility AND the use of chemicals follows legal requirements of the appropriate EU regulations and of the country concerned. Water, supplies of eel, and use of equipment are managed such that it is not possible to infect one tank or batch of eels from another. The facility has the appropriate permissions to operate from the relevant licensing authority and there have been no bio-security issues in the past 2 years. The facility provides health check certificates to show batches being free of disease and alien species
Eel farming: Biosecurity is present and disease is treated rapidly and appropriately	
Sustainable indicators	The farm operates an effective and documented biosecurity plan for the prevention and protection of fish AND daily records are available showing regular monitoring of fish health and signs of stress AND records are maintained in relation to the name,

	administrator, amount, dates and reason for use of any medicines and/or chemicals used in the facility AND the use of chemicals follows legal requirements of the EU and of the country concerned. Water, supplies of eel, and use of equipment are managed such that it is not possible to infect one tank or batch of eels from another. The facility has the appropriate permissions to operate from the relevant licensing authority and there have been no bio-security issues in the past 5 years. The facility provides health check certificates to show batches being free of disease and alien species
Responsible indicators	The farm follows bio-security measures (although this may not be documented) AND eels are regularly inspected for disease (although this may not be documented) AND records are maintained in relation to the name, administrator, amount, dates and reason for use of any medicines and/or chemicals used in the facility AND the use of chemicals follows legal requirements of the EU and of the country concerned. Water, supplies of eel, and use of equipment are managed such that it is not possible to infect one tank or batch of eels from another. The facility has the appropriate permissions to operate from the relevant licensing authority. The facility provides health check certificates to show batches being free of disease and alien species The facility has the appropriate permissions to operate from the relevant licensing authority and there have been no bio-security issues in the past 2 years.
Restocking: The risk of restocked eels introducing disease into wild populations has been assessed and is minimal	
Sustainable 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 a regular basis and known to be free of disease.
Responsible 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 OR eels are from a known source where available evidence is sufficient to confidently suggest that disease levels are low (although it may not be tested regularly) OR eels from an area where a disease is endemic in the wild population are being restocked into an area with similar prevalence of the same disease(s).
Wholesale / Retail / Processing: Hygiene Plans are followed and there are rare examples of infection	
Sustainable indicators	Food processing hygiene plans are followed and there have been no instances of infection in the past 5 years
Responsible indicators	Food processing hygiene plans are followed and there have been no instances of infection in the past 2 years

Component 2 - Glass eel fishing

Issues	**Size of market** Glass eel fishing forms by far the greatest portion of the overall catch of eels (by number). Commercial fishing is from a relatively small number of estuaries (about 20 - 30) on the west coasts of Morocco, Portugal, Spain, France and the UK where there are large concentrations of glass eels. Although seen to catch about 60 tonnes per year in recent years (180 Million glass eels), (1) fishing rarely catches more than 50% of the run in any one river and (2) there is little or no glass eel fishing in the hundreds of other estuaries around Europe. This standard is designed to demonstrate net benefit from those that are fished. **Acceptable fishery** A discussion about what constitutes a sustainable or acceptable fishery, and therefore able to provide net benefit, is provided in Sections 5. and 6. above. **Traceability – sale to certified buyers** There is an obvious temptation to sell to buyers who will offer the best price. That price is determined by the market and the illegal market often commands a higher price. SEG Certified buyers must sell only to legal markets so it follows, that to be sustainable, certified fisheries must only sell to certified buyers. Other mechanisms such as e-Declaration systems are also being used to improve traceability and therefore discourage and also measure the extent of the illegal markets down to the fishery level. **Fishery data** Good fishery data are important to enable effective fisheries management by local, national and European fishing authorities. **Survival & eating glass eels** It is obviously important to maximise welfare and survival for glass eels to then maximise their net benefit. There will inevitably be some mortalities and those can be kept, frozen and supplied for an albeit diminishing market in earing glass eels. In some places in Europe there are local traditions based on eating glass eels, e.g. it is a Christmas tradition in parts of Spain. However, the reduction in glass eel catches has led to substitutes being developed for these traditions. SEG does not support the capture of glass eels for direct consumption as we believe it is poor use of the stock and does not support net benefit, but we do support the use of the small proportion of glass eels that don't survive fishing, holding and transportation.
Notes	***Unit of fishery*** Fisheries can be assessed at a range of size of 'units', from individual fishermen, through groups, co-operatives, to a whole estuary. Smaller units, eg. a single fisherman, brings individual responsibility but greater cost (of assessment). Larger units bring economies of scale, and the whole group of fishermen must trust each other to operate according to the required standards and regulations. Where assessment for individuals is prohibitively expensive, we will seek to facilitate collaboration to bring groups together to conduct multiple single assessments to make it more affordable.

Definition of a sustainable eel fishery

Sustainability is discussed in Section 5. above.

This note applies to glass eel, yellow eel and silver eel fisheries.

In assessing progress of an eel management plan, the assessor will seek evidence from the relevant agencies to identify whether there is credible progress with the majority of management actions.

Note also that for countries where the EU Regulation does not apply, a similar standard that is at least the equivalent of that set out in the EU regulation and is based on the implementation of an eel management plan approved by an international scientific committee.

Eel Management District

The Eel Management District described in Criteria 2.1 and 3.1 are the smallest level of catchment at which silver eel escapement targets have been set. Depending on the country, these may be individual rivers, groups of catchments (river basins) or, in some cases, whole countries.

Mortality rates during fishing for glass eels

It would be more straightforward to have only a direct statement about the mortality rate, but stakeholders were concerned that: i) the mortality rate is variable eg. over the season; ii) the mortality rate is difficult to measure because eels may look fine but have invisible injuries that subsequently cause mortality outside the specified timeframe and iii) it would be relatively easy for fishermen to 'put on a good show' for inspectors in this regard (for example, poor physical condition can be masked by raising salinity of the tank water with salt to between 10 and 16 ppt). Therefore, we have chosen to include a series of criteria about the fishing method, such that the Standard requires fishermen to use techniques that are known by the industry to result in low mortality rates. These are in line with the French 'good practice guide' for glass eel fishing for the purposes of restocking (GPG Glass Eel Restocking).

Mortality rates in glass eel fishery and in storage

Mortality from fishing can become apparent during the period of glass eel storage, rather than in the fishery itself. Since the glass eel catch over several days tends to be amalgamated in one tank in the holding facility, it is not possible to separate out a time period to allocate this mortality to the fishery vs. the holding facility – eg. by saying that mortality during the first 24 hours is due to the fishery while after that it is due to conditions during holding. Thus, the maximum mortality rate for the fishery covers the whole time period that the glass eels are in the holding facility. The Standard for glass eel buyers (Component 4 of the Standard) also includes a mean mortality requirement, which is lower than the maximum mortality requirement for the fishery, although covering the same time period. This arises because the glass eel fishery component (Component 2) requires a maximum permissible rate for each batch, while the glass eel storage component (Component 4) sets a maximum for the average rate across the whole season. Note that these two rates are not additive – both must be achieved.

Note that the setting and calculation of mortality rates has caused difficulties for each clients and assessors. Suggestions for solutions for this standard are welcomed. It will be most helpful to separate the action of fishing and the action of fish storage.

Design of net for glass eel fishing

The crucial element in the design of fishing gear for glass eels is that it does not allow the eels to become trapped in the mesh – this leads to mechanical injuries which eventually leads to mortality even if such injuries are not immediately visible. For the cod end and for hand-held nets, this is generally solved by ensuring that the mesh size is small enough so that no part of the glass eel fits through. For the rest of a towed net, the mesh size can either be small enough as above, or large enough that glass eels can pass through without injury (in practice, most swim away from the mesh, ensuring that they remain in the net). For the cod end, we have been prescriptive about mesh size, but for the remainder of the net, fishermen may find their own solutions, as long as they fulfil the criterion of not causing injury or abrasion.

Vivier tank

This is a tank for holding live fish with systems to replenish water, and monitor and maintain water quality standards appropriate to the fish species and life stage.

By-catch in glass eel fisheries

In order to evaluate impacts of the fishery on by-catch over a fishing season, the assessor will require evidence which is likely to include:

- Main species represented in the by-catch
- A quantitative or qualitative evaluation of the quantity of each species caught over a given period (eg. per tow or dip, per night)
- The measured or likely population status of these species in the area of the fishery (noting that rare, endangered or protected species are dealt with separately)
- Protocols or methods for dealing with by-catch
- The actual or likely discard survival

'Negligible impacts' are defined as a low rate of by-catch plus a low rate of discard injury or mortality plus by-catch only from species which are abundant in the area. 'Low-level' impacts are where two of these criteria are met. In 'severe' impacts, none of the criteria may be met in full. Where only one criterion is met in full, the assessor shall use their judgement in deciding the outcome.

Infrequent but large catches of gelatinous zooplankton in glass eel nets during bloom periods may be excluded from these criteria.

Mortality during first week in culture

It was agreed between glass eel buyers and eel farmers represented on the stakeholder group that mortality during the first week in the eel culture facility is related to handling during fishing, holding and/or transport, rather than to factors under the eel farmer's control. This period therefore may be left out of calculations for mortality rates during culture.

Good data

Good data are defined as those that can be used for statistical analysis with reasonable power.

Quotas and Sustainable Yield

Given the size, range and diversity of the stock of the European Eel, it is not yet possible to properly set quotas or a Maximum Sustainable Yield. We hope that stock and catch

	indices improve adequately over the next 10 years to be able to set such important fisheries management targets.
Benefits	• Glass eels are fished from a place only where they can provide net benefit • Survival is maximised • Impact on the environment / other species is minimal • Good fishery data enable effective fisheries management • Glass eels are sold to SEG certified buyers to maximise the market in sustainable sourced fish and reduce the supply for illegal trafficking
Rationale	The rationale is described for each of these above
Targets & Measures	• The amount (weight) and proportion (%) of glass eels caught from each certified and non-certified fisheries will be monitored. The proportion from certified fisheries increases from ? % to 90% over the next 10 years • Survival rates will be monitored and targets set to seek a continuous improvement in survival • Fishery authorities will develop increasing confidence in fishery data to make fisheries management decisions • The proportion of certified glass eels sold to certified buyers will be measured. The target to be 95% over the next 10 years. The unaccountable & probable sale to uncertified & illegal exports to be measured through mass-balance analysis of catch-declaration systems, to support the target in Component 1, i.e. In 10 years (2027) the level of illegal trade to reduce from 40% of the total catch to less than 5%.
Criterion 2.1: Eel fishing is in a sustainable or acceptable fishery	
Weighting: 2	
Sustainable indicators	The Eel Management Plan is approved and there are good data which shows with reasonable confidence that the EU silver eel 40% escapement target is being achieved in the eel management district.
Responsible indicators	The Eel Management Plan is approved and there is evidence that it is being implemented. OR Eel fishing is in a place accepted by the fishery authority as providing net benefit to the eel stock
	Consultees are invited to suggest other ideas & indicators to define and assess these.
Criterion 2.2: The fishery is well-managed	
Weighting: 2	
Sustainable indicators	Fishers are licensed and provide catch and effort data AND data on catch and effort are collected and analysed regularly by the fishery authority (at least annually at the end of the season), AND data are considered to be accurate, useful for statistical purposes and provide a comprehensive picture of the glass eel fishery under assessment AND fishermen only use legal gear AND enforcement is in place throughout the fishing area with no evidence of systematic non-compliance.
Responsible indicators	Fishers are licensed AND data on catch and effort are collected and analysed regularly by the fishery authority (at least annually at the end of the season) AND data are considered to be accurate and provide enough information on the glass eel fishery under assessment

	for management and to track annual trends in glass eel arrival AND fishermen only use legal gear AND there is no evidence of systematic non-compliance.
Criterion 2.3: Mortality during fishing is minimised	
Weighting: 2	
Sustainable indicators	Fishing is by hand-held nets and has effective nearby holding facilities OR Fishing from vessels meets the following criteria: i) fishing is at slow speed (no more than 1 knot relative to water); ii) haul duration is on average no longer than 20 minutes, with the maximum duration not more than 30 minutes; (iii) mesh size of cod end no greater than 1mm; (iv) rest of the net designed such that glass eels do not become trapped or abraded; v) vivier tank on board and in use Outcome: fishermen can demonstrate that the mortality rate of the catch over the duration of holding in the storage facility is <4% for each batch captured.
Responsible indicators	Fishing from vessels meets the following criteria: i) fishing is at slow speed (no more than 1.5 knots relative to water); ii) maximum haul duration no longer than 30 minutes; iii) mesh size of cod end no greater than 1mm; iv) rest of the net designed such that glass eels do not become trapped or abraded; v) vivier tank on board and in use; Outcome: fishermen can demonstrate that the mortality rate of the catch over the duration of holding in the storage facility is <8% for each batch captured.
Criterion 2.4: The fishery has negligible impacts on by-catch species	
Weighting: 1	
Sustainable indicators	The fishery has a negligible impact on by-catch AND by-catch is returned to the water alive as gently and rapidly as possible.
Responsible indicators	The fishery has low-level impacts on by-catch AND by-catch is returned to the water alive as gently and rapidly as possible.
Criterion 2.5: The fishery has negligible impacts on rare or other protected species	
Weighting: 1	
Sustainable indicators	The fishery has no direct interactions resulting in mortality or injuries with other species that are considered vulnerable, threatened, endangered or are protected under national or international law.
Responsible indicators	Interactions, resulting in mortality or injury, with other species that are considered vulnerable, threatened, endangered, or are protected under national or international law, are rare and have no overall measurable impact on the population.
Criterion 2.6: The fishery has negligible impacts on habitats	
Weighting: 1	
Sustainable indicators	The fishing gear does not cause any damage to the bottom.
Responsible indicators	Damage to the bottom by gear is limited or minimal.

Component 3 - Yellow and silver eel fishing	
Issues	Yellow and silver eel fisheries have greatly reduced in the past 10 years – in part because of the reduction in eel populations making it less viable, and in part because many countries' fishery authorities closed or reduced fishing for adult eels as part of their Eel Management Plans. Where this fishing continues, we seek for them to become certified. There has only been one certified yellow eel fishery, and there are none at present. **Eating wild yellow and silver eels** Yellow and silver eels are adult eels. Those in the wild have survived the period of greatest mortality and are adapted to life in the environment. These fish are those that have the greatest opportunity to survive to migrate to the Sargasso to spawn. This is why many Eel Management Plans have stopped or reduced yellow and silver eel fishing. Due to the importance of these eels as potential spawners, the standard is designed to only support fishing where the fishery is meeting its escapement target. Note, our experience of yellow and silver eel fishing in relation to the standard is very limited, so this part of the standard is comparatively under-developed. We welcome any comments to help us develop this further.
Notes	Many notes, eg. Unit of Fishery, Definition of a sustainable fishery, Good data, are the same as for Glass eel fishing, above, and for brevity, are not repeated here.
Benefits	• Eels are fished from a place only where they can provide net benefit • Impact on the environment / other species is minimal • Good fishery data enable effective fisheries management
Rationale	Where yellow and silver eel fishing exists, we wish to enable it to become and show itself to be responsible and sustainable, via the SEG Standard
Targets & Measures	• The amount (weight) and proportion (%) of adult eels caught from each certified and non-certified fisheries will be monitored. The proportion from certified fisheries increases from 0 % to 50% over the next 10 years • Fishery authorities will develop increasing confidence in fishery data to make fisheries management decisions
Criterion 3.1: The management target (40% escapement or otherwise) is being achieved	
Weighting: 2	
Sustainable indicators	The management plan is approved and there are good data which show with reasonable confidence that the EU silver eel escapement target is being achieved in the eel management district.
Responsible indicators	The Eel Management Plan is approved and there is evidence that it is being implemented. OR Eel fishing is in a place accepted by the fishery authority as providing net benefit to the eel stock

Criterion 3.2: The fishery is well-managed	
Weighting: 2	
Sustainable indicators	Fishers are licensed and provide catch and effort data AND data on catch and effort are collected and analysed regularly by the fishery authority (at least annually at the end of the season), AND data are considered to be accurate, useful for statistical purposes and provide a comprehensive picture of the eel fishery under assessment AND fishermen only use legal gear AND enforcement is in place throughout the fishing area with no evidence of systematic non-compliance.
Responsible indicators	Fishers are licensed AND data on catch and effort are collected and analysed regularly by the fishery authority (at least annually at the end of the season) AND data are considered to be accurate and provide enough information on the eel fishery under assessment for management and to track annual trends in glass eel arrival AND fishermen only use legal gear AND there is no evidence of systematic non-compliance.
Criterion 3.3: The fishery has negligible impacts on by-catch species	
Weighting: 1	
Sustainable indicators	The fishery has a negligible impact on by-catch AND by-catch is returned to the water alive as gently and rapidly as possible AND dead by-catch is landed and recorded AND the fisheries show initiatives to reduce the amount of dead by-catch
Responsible indicators	The fishery has low-level impacts on by-catch AND by-catch is returned to the water alive as gently and rapidly as possible.
Criterion 3.4: The fishery has negligible impacts on rare or other protected species	
Weighting: 1	
Sustainable indicators	The fishery has no direct interactions resulting in mortality or injury with other species that are considered vulnerable, threatened, endangered or are protected under national or international law.
Responsible indicators	Interactions, resulting in mortality or injury, with other species that are considered vulnerable, threatened, endangered or are protected under national or international law, are rare and have no overall measurable impact on the population.
Criterion 3.5: The fishery has negligible impacts on habitats	
Weighting: 1	
Sustainable indicators	The fishing gear does not cause any damage to the bottom.
Responsible indicators	Damage to the bottom by gear is limited or unusual.

Component 4 - Eel buying and trading

Issues	Glass eel buyers hold an integral, important but also difficult position in the supply chain. They are relatively few, and are considered by some to 'control' the market, though there are sufficient to enable competition. Their relationship with fishermen is crucial – mutual trust and loyalty are important – and this relationship has often influenced changes to

	more sustainable fishing practices in the past as buyers have become more aware of market pressures. Buyers also have the considerable challenge of winning tenders from customers in a very competitive market (where the driver has too often been cost rather than quality & sustainability), and then seeking to balance that with the uncertainty of supply when the number of returning glass eels or fishing conditions might not provide the market demand. On top of this there is an illegal trade to Asia. The higher prices are a temptation to some and this can significantly affect market demand and prices. Millions of glass eels pass through a small number of buyers so issues such as welfare and influence are important for many factors around sustainability.
Notes	***Careful handling*** Careful handling will involve, amongst other things, no dropping or tipping, no drying out, minimal contact with sharp edges or corners, nothing in which the tail could be caught; moving the eels with water rather than nets where possible, and the procedure to be planned in advance and completed as quickly as possible. ***Design of glass eel holding facilities*** To be ideal for glass eel holding, there should be, for example, no sharp corners or edges, no excessive flow rates and no abrupt changes in flow rate. Some buyers may use facilities that have been adapted rather than specially designed, and thus may not be ideal. ***Transport – no 'gold' score possible*** We were not able to design an 'gold' score criterion for transport – it appears that anything less than the optimum standard is not acceptable. ***Restocking requirements under the EU Regulation*** The EU Regulation requires that 60% of glass eels from fisheries should be reserved for restocking in order to improve escapement rates.
Benefits	• Increased supply, demand and proportion of certified (compared to non-certified) eels in the market • Improved welfare and survival of eels during handling • Reduction in demand and supply of eels for illegal export leading to a reduction in illegal trafficking
Rationale	The rationale in the issues and notes are described above.
Measures	• The amount (weight) and proportion (%) of eels traded by each certified and non-certified traders will be monitored. The proportion from certified traders increases from ? % to 90% over the next 10 years • Survival rates will be monitored and targets set to seek a continuous improvement in survival
Criterion 4.1: Mortality in storage facility (See Note 5)	
Weighting: 2	
Sustainable indicators	Mortality rate over the season is less than 2% on average.
Responsible indicators	Mortality rate over the season is less than or equal to 5% on average but greater than or equal to 2%

Criterion 4.2: Mortality during transport and initial holding if transported to farm	
Weighting: 2	
Sustainable indicators	Mortality during transport and for the first week at the farm is less than 2% on average.
Responsible indicators	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.
Criterion 4.3: Water quality	
Weighting: 1	
Sustainable 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) AND water quality management procedures are in place including regular monitoring of relevant parameters which shows that water quality is always high and stable AND water quality monitoring is linked to an alarm-based system in the event of a sudden drop in water quality AND 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.
Responsible 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) AND 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.
Criterion 4.4: Handling and welfare	
Weighting: 1	
Sustainable indicators	Systems are in place and the facility is designed to keep handling to an absolute minimum AND documented procedures are in place for handling, and handling, where necessary, is careful AND 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) AND eels are moved without being allowed to dry out.
Responsible 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 AND handling, where necessary, is carefully planned and executed AND the infrastructure has been optimised as far as possible to avoid injuries AND nets are small-mesh (1mm maximum) AND eels are moved without being allowed to dry out.
Criterion 4.5: Transport	
Weighting: 1	
Sustainable indicators	Transport is carefully planned to minimise travel time AND packing is done in a way that minimises handling, time and stress AND eels are kept cool and wet with an adequate supply of oxygen.
Responsible indicators	Can we describe other critieria, be more specific, or base it on survival rates?
Criterion 4.6: The required percentage of glass eels from the fishery is being used for restocking	
Weighting: 2	
Sustainable indicators	The buyer can provide documented evidence that they have sold at least the required target percentage of its glass eels from the latest season for the primary purpose of conservation / escapement.

Responsible indicators	The buyer can provide documented evidence that they have made at least 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 that the buyer can provide credible evidence that re-stocking will occur in the forthcoming season.

Component 5 – Eel farming

Issues	High survival rates and growth rates in fish farms compared to the wild enable the efficient use of millions of glass eels for restocking, and for the provision of high quality food for human use. However, fish farms must be well run to be both profitable and sustainable. Poor husbandry can lead to disease, high mortalities and pollution. Feed is often made with other fish species and these should be from certified sources. The farm should be contributing to restocking to play its part in achieving net benefit.
Notes	**If the Eel Farm has achieved another fish farming standard, evidence presented for that can be used in assessment here.** ***Mortality rate during culture*** Unlike for the fishery, traceability at the farm level should ensure that mortality can be measured directly and evaluated reliably by the assessors. In practice, calculating mortality can be a difficult task and finding a single method to fit all farms is problematic. It has been decided that a direct approach is the most feasible for use across the culture industry. The following methodology should therefore be used; 1. (Total Mortality (by piece) in the year / Total Stock (by piece) in the year) X 100 2. This then needs to be multiplied by the average time that an eel will spend in the system. 3. This should be completed on a yearly basis by the farm An example: A farm has recorded a total stock for the year of 1.8 Million eels (Calculated using an average weight). During the year it records a total mortality of 100,000 eels (Calculated using an average weight). This provides the following calculation; (100,000/1,800,000) x 100 = 4.4% On average, an eel will spend a maximum of two years in the facility meaning this mortality rate needs to be doubled, giving a total mortality percentage of 8.8%. The farm would therefore achieve the higher indicator for this. It is emphasised that the farm manager will be asked to provide the calculation directly. The workings, including evidence of how the figures have been achieved, will need to be provided to the assessor. ***Feed*** For feed products other than pelleted feed (eg. cod roe), it is the responsibility of the organisation under assessment to show that the source is sustainable. Feed companies should be prepared to provide the sources and breakdown of feed ingredients.

	Sustainable fisheries In this statement, we follow MSC and other eco-labels in considering i) the impact of the fishery on the stock of the target species, and ii) the impact of the fishery on other species and marine ecosystems more generally (for fisheries used for fish feed). ***Feed conversion ratios*** A good Feed Conversion Ratio (FCR) is key to ensuring that the farm is operating efficiently and using its feed in an effective manner. The FCR will vary depending on the size of the fish and so three separate FCRs are given. FCR figures should be verified whenever possible by the assessor to ensure they have been calculated correctly. Note that these figures are from eel farmers – no national or international standards appear to exist for eel farming. ***Humane Slaughter Methods*** Although the EU does not currently provide a list of acceptable humane methods of slaughtering fish it is generally agreed that the best methods are those that; *'provide an instant death or render them insensible to pain'* For the purposes of this standard the methods that are considered to meet this statement are defined as, electrical shock, beheading, pithing or chilling. Other methods may be considered by the assessor if evidence can be given to support this overriding statement is valid. ***Restocking of Cultured Eels*** The requirement for restocking eels during culture distinguishes between the actual provision of eels for restocking and eels being 'made available' for re-stocking (i.e. a willingness on the part of the eel growers to provide eels for restocking as and when there is a market, even if the market is less lucrative than the market for eel product). Whichever is used, the farm must be able to provide evidence to support this and to show that the eels are going for the purposes of restocking (documentation for the purchasers stating this intended purpose would act as sufficient evidence here). Restocking in this context refers to restocking for the primary purpose of enhancing escapement. Restocking percentages should be calculated by piece, although an average weight may be used to calculate this. The calculation to be used would be: ((Year Restocking Total (by piece)/ Year Production (by piece)) x100 = % Restocked per year Eels used for restocking are not graded out. There have been a number of suggestions/examples – given by people working in the sector – that 'slow-growers' are used for stocking. This skews the freshwater population in a way that is unnatural.
Benefits	• Survival is maximised • Eel farms play their part in providing next benefit • Food for human consumption is provided with minimal impact on the environment
Rationale	The rationale in the issues and notes are described above.
Targets & Measures	• An increasing number and proportion of farms, from 2 and 5% to 35 and 90% in 10 years are certified. In 10 years, the total proportion of certified eel that passes through eel farms is 90%. • 60% by number of eels from fish farms is provided for restocking

Criterion 5.1: The total mortality rate during the culture process is low	
Weighting: 2	
Sustainable 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
Responsible 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.
Criterion 5.2: The fish meal/oil ingredients in the feed come from a sustainable source	
Weighting: 1	
Sustainable indicators	Fish meal/oil in the feed (including juvenile feeds) is certified by IFFO
Responsible indicators	Fish meal/oil in the feed (including juvenile feeds) is not certified by IFFO
Criterion 5.3: Feed is used as efficiently as possible	
Weighting: 1	
Sustainable 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
Responsible 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
Criterion 5.4: Water quality	
Weighting: 1	
Sustainable 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) AND water quality management procedures are in place including regular monitoring of relevant parameters which shows that water quality is always high and stable AND water quality monitoring is linked to an alarm-based system in the event of a sudden drop in water quality AND 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.
Responsible 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) AND 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.
Criterion 5.5: There are minimal ecological impacts from effluent discharge	
Weighting: 1	
Sustainable 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.
Responsible indicators	Effluent discharge is regularly tested by the farm AND/OR has been found to be non-compliant on 1 occasion in the past 5 years.

Criterion 5.6: Grading, slaughter and transportation are carried out with respect to welfare	
Weighting: 1	
Sustainable indicators	Grading is completed in an efficient manner AND slaughter is completed by a method that provides an instant death or renders them insensible to pain AND procedures are in place to ensure transportation provides suitable conditions for fish welfare.
Responsible indicators	May be only one acceptable level here?
Criterion 5.7: The farm provides eel for restocking	
Weighting: 2	
Sustainable indicators	The farm can provide documented evidence that 10% or more of the farm's annual eel production (by piece) has been released for restocking for the purpose of conservation / escapement.
Responsible 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.

Component 6 - Restocking	
Issues	Restocking of eels has been taking place for over 100 years – Glass eels from the Severn in the UK were first stocked into the German Rhine in 1908. It has been an accepted management technique since and has been an integral part of the Eel Management Plans of several EU countries. However, the scientific evidence on its effectiveness is mixed, with as many studies reporting the negative aspects of stocking to those reporting benefits. The current consensus is that stocking is most effective when done as close as possible to where the eels were caught. This has the added benefit of reducing the introduction of disease, parasites and alien species. We (SEG and fisheries authorities around Europe), will continue to review the evidence to ensure that Eel Management Plans and this standard are consistent with the latest science.
Benefits	• Escapement of silver eels in the target catchment is increased by restocking, towards or beyond the 40% target
Rationale	As described in Section 8 above, this depends on the assumption that taking Glass eels from areas of over-abundance and stocking them to areas of low recruitment, leads to an increase in the eel populations overall in European, Scandinavian and North African waters, and a corresponding increased escapement of silver eels, leading to increased spawning and increased recruitment of glass eels.
Targets & Measures	• Silver Eel escapement in the recipient catchment is measured with reasonably confident calculation • Restocking is measured, with reasonably confident calculation, to have made a measurable increase in silver eel escapement. • Silver eel escapement is increasing towards or at the 40% target

Criterion 6.1: Restocking is carried out in accordance with an approved EMP, in order to improve escapement to or above the 40% target and is approved by the relevant agency	
Weighting: 1	
Sustainable indicators	The eel management plan is approved and there are good data which show with reasonable confidence that the EU silver eel escapement target is being achieved in the eel management district OR the restocking is part of a management initiative that should with reasonable confidence lead to the 40% escapement target being achieved in the future. Fishing of restocked eels does not have any measurable impact on escapement.
Responsible indicators	The management plan is approved and there is evidence that it is being implemented. The restocking is a part of the management plan. Fishing on restocked eels may have measurable impacts on escapement, but only if escapement is above the 40% target.
Criterion 6.2: Survival and growth rates of restocked eels, and escapement from the system, can be estimated	
Weighting: 1	
Sustainable indicators	A formal monitoring programme estimates survival rates and growth rates of restocked eels such that there is good evidence that restocking is significantly enhancing eel biomass and contributing to escapement. There is active research on means of improving the restocking programme or restocking techniques.
Responsible indicators	A monitoring programme estimates survival, growth and escapement. The existing evidence suggests that restocking is significantly enhancing eel biomass and contributing to escapement.
Criterion 6.3: The restocked area is suitable for eel growth, survival and escapement	
Weighting: 1	
Sustainable indicators	Ecological information suggests that the system into which eels are restocked is suitable eel habitat (eg. type of water body, productivity, former presence of eels). There are no significant barriers to escapement of silver eels from the system OR systems are in place which demonstrably allows a significant proportion of silver eels to circumvent these barriers (eg. effective passes trap and transport).
Responsible indicators	It is reasonable to assume by analogy with other systems the system into which eels are restocked is good eel habitat. If there are barriers to escapement of silver eels, plans are being put in place to allow a reasonable level of escapement which will be implemented in time to allow this restocking cohort to contribute to escapement.

Component 7 – Wholesalers and retailers

Issues	Wholesalers and retail describes the sometimes short, sometimes long chain from the eel leaving the fishery or fish farm, processed for human consumption (e.g. filleted, smoked), distributed to retailers and then sold to the consumer (e.g. the public, restaurants). In some cases, a number of processes might be carried out by the same business, e.g. some family businesses in Holland have their own eel farm, their own smoker and sell direct to the public.
Notes	There are no separate criteria for Wholesalers and Retailers, but the component is provided here to show how they are included in the supply chain.

	The most obvious and important component applying to these is Component 1, covering Commitment to Legality and Sustainability; Trading in certified eel and Traceability. Where the facility undertakes other processes in this standard, e.g. perhaps eel farming, the business and assessor should decide the relevant parts to audit.
Benefits	• Consumers have the opportunity and choice to purchase sustainably sourced eel
Targets & Measures	• An increasing number and proportion of wholesalers and retailers provide certified eel, from 5% now to 90% in 10 years • An increasing proportion of total retail sales is of certified eel, from 5% now to 75% in 10 years

Component 8 – Contribution to Healthy Aquatic Ecosystems

Issues	Many companies have a social & corporate responsibility programme, to make contributions to society outside of their core business, and beyond their legal obligations. Where they make a contribution that benefits the eel, they could be recognised via the SEG standard.
Notes	There are potentially many other factors to consider when considering a company's ethical and environmental credentials, and there are other standards to cover those. This standard will therefore, by necessity, be kept simple. It is likely to develop with experience of its use. Clear definitions of *significant* and *reasonable* contributions are not possible. The assessor should consider factors such as (1) how extensive and how well funded is the company's social & corporate responsibility programme – perhaps as a % of its profits and (2) what proportion of the programme is allocated to eel conservation & education.
Benefits	• Increased investment to improve the health of aquatic ecosystems, aiding the recovery of the European Eel • Companies able to be recognised for their work • Companies able to choose the Eel as a species to support
Rationale	By providing the opportunity of certification, more companies might choose the eel as a cause to support, leading to greater investment and faster recovery
Targets & Measures	• Annual increase in the number of companies seeking the SEG Standard, from 0 now to 20 in 10 years • 10% pa increase in the value of eel conservation and restoration projects, doubling from £20M per year now to £40M in 10 years
Criterion 8.1: The company has a good environmental record	
Sustainable indicators	There have been no prosecutions or warnings for breaches of environmental regulations in the past 5 years AND There is a certified Environmental Management System in place such as ISO14001
Responsible indicators	There have been no prosecutions or warnings for breaches of environmental regulations in the past 2 years AND There is a certified Environmental Management System in place such as ISO14001, or the company is actively pursuing one

Criterion 8.2: Contribution to eel conservation projects	
Sustainable indicators	There is a significant contribution in finance, time or people to funds such as Eel Stewardship Funds, River Restoration project, eel conservation or education projects
Responsible indicators	There is a reasonable contribution in finance, time or people to funds such as Eel Stewardship Funds, River Restoration project, eel conservation or education projects

12. Governance

This section describes the rules and procedures for the governance of the standard. It describes the role of different groups, procedures for assessing compliance with the standard, and procedures for dealing with alleged breaches.

12.1 Assurance Code

The assurance code, being developed to meet ISEAL requirements, will be produced in more detail and published on our website in the SEG-Standard section, under About the SEG Standard.

The following provides a summary. This is currently under development, so is not complete yet. It will be competed and updated when the new standard is published in November 2017

General Terms

Certification Body (CB): A Certification Body is an organisation qualified to complete fishery audits and that has been approved by SEG to complete audits against the Sustainable Eel Standard. They will be included in a list on the SEG website.

Client: a person, business or other entity seeking certification under the SEG Standard.

Sustainable Eel Group (SEG): The Sustainable Eel Group (SEG) was formed to take action to support the recovery of the European Eel. SEG are responsible for the creation and maintenance of the Sustainable Eel Standard.

Sustainable Eel Standard, or SEG Standard: The standard against which all audits shall be carried out. The standard is divided into 8 separate components against which clients may be assessed.

Sustainable Eel Standard Panel: This is the Panel which is responsible for the development of the Eel Standard and overseeing the issuance of new certificates under the Sustainable Eel Standard. Note that the Panel is independent from the SEG Board. Also, it has no commercial representatives so that there is no conflict of interest in undertaking its role. Membership of the Panel is published on the SEG website here.

Certification Body (CB) Eligibility

Audits against the Sustainable Eel Standard can only be completed by a registered Certification Body (CB) as approved by the Sustainable Eel Standard Panel. Registration shall require the applicant CB to:

1. Provide evidence to SEG of other suitable certification standards for which the applicant is accredited;
2. Show the completion of relevant training of auditors against the Sustainable Eel Standard;
3. Have completed one shadowed audit (shadowed by a member of the SEG standard panel) for each part of the standard to be assessed by the applicant.

Upon successful completion of these tasks the 'applicant CB' will be approved by the Sustainable Eel Standard Panel as a 'registered CB' and included in the approved list that will made available on the SEG website.

Application for Certification

A client wishing to be assessed against the Sustainable Eel Standard shall initially contact a relevant Certification Body. At this point the Certification Body shall send the client the following;

- The Sustainable Eel Standard (current version)
- An Application Form which shall specify:
    - The client's name and address
    - Whether they have been certified against any part of the standard previously
    - A brief description of the client's business
    - The Components against which they wish to be certified
    - What evidence is required to be sent pertaining to Component 1 of the Standard

Upon receipt of a completed application form the Certification Body (CB) shall determine whether the client is suitable for certification against the Sustainable Eel Standard. Should the initial application assessment be positive the Client shall be sent a contract determining the cost of the audit and setting out the terms and conditions for completion of the audit. This contract should also clearly state the Components against which the client shall be audited.

Only upon receipt of a signed contract shall the CB complete the audit of the client.

Auditing against the Standard

The Sustainable Eel Standard has been designed on a Component basis with each component relating to a separate area of the industry. The components are listed below:

Component 1:	Core requirements: ○ Commitment to legality and sustainability ○ Trading in sustainably sourced eel ○ Traceability ○ Biosecurity
Component 2:	Glass eel fishing
Component 3:	Yellow and silver eel fishing
Component 4:	Eel buying and trading
Component 5:	Eel farming
Component 6:	Restocking
Component 7:	Wholesale and retail supplies
Component 8:	Contribution to healthy aquatic ecosystems

Organisations looking to become certified against the Sustainable Eel Standard must firstly be assessed against Component 1. There are no exceptions to this requirement. It is mandatory and must be completed prior to any site visit being implemented. Should the client not meet the requirements for Component 1 then certification will not be approved until such time as this component is met.

On compliance with Component 1 an organisation must then achieve a pass under all the other components which apply to them. For example, a company/organisation that both fishes for glass eels and cultures them would need to pass both Component 2 – Glass Eel Fishing and Component 5 – Eel Farming. The CB should assess the organisation against each required component individually.

The CB is required to prepare an Assessment Report at the end of the audit process which clearly sets out the performance of the client against each separate component (although this may be completed in a single report). It then awards the Certificate and reports to the SEG Panel.

13.2 Compliance

Initial Certification Audit

An on-site audit will be required for the initial certification of all clients. This will consist of the following:

1. **Initial Meeting**. During this the client shall be informed of what will be audited and the scope for the rest of the audit. The client shall be asked to outline its process from start to end. During this initial meeting the client must be made aware that the CB must have access to all records held by the Company in order to be able to verify their findings.
2. **Tour of Site**. The CB shall complete a full audit of the client's operation
3. **Discussion and Assessment against Standard**. The CB shall assess the client against the standard. The CB shall collect evidence at every stage.
4. **Final Meeting.** Final discussion and initial findings.

Following the completion of an initial certification audit the CB shall complete a report setting out the client's performance against each of the requirements for the component(s) against which they have been assessed.

The report will make a recommendation on certification (against each of the Components that have been assessed). The client must achieve all indicators in order to be approved against any particular component.

To decide if a 'Sustainable' or 'Responsible' award is made:

Either:

Organisations with any one Sustainable indicator pass will achieve a Sustainable level certificate award.

or:

Organisations with a majority of Sustainable indicator passes will achieve a Sustainable level certificate award.

or:

Organisations only with all Sustainable indicator passes will achieve a Sustainable level certificate award.

The draft assessment report will first be sent to the client for comment. Should the client not comment within two weeks of the report being sent, the CB shall produce the final report with no further amendments.

The final report (incorporating any clarifications agreed through the client's comments) shall then be sent to the CB's Director, who has the authority to award the Certificate under contract agreement with SEG. In marginal cases, the CB may refer to the SEG Panel for a final decision.

Copies of Certificates, Assessment Reports and correspondence with the client will be provided to SEG for publication on the SEG website.

Issuing Certificates

Certificates will only be issued by the Certification Body and shall include the following details:

- The client's name and address
- The components that the client is certified against
- The certificate number
- The issue date
- The expiry date (usually four years after the issue date)

The certificate will last for a maximum of four years but may be withdrawn at any time should evidence become available to demonstrate the client is no longer meeting the Sustainable Eel Standard.

The client will be sent a copy of the certificate, conditions for its use, and improvements expected by the next audit. SEG will maintain and publish a register of all certified clients at: http://www.sustainableeelgroup.org/the-sustainable-eel-standard/assessed-organisations/

Transferability of Certificates

Certificates are not transferable between companies. So, a when a certified company merges with, acquires or is acquired by another company, the Certificate cannot be transferred to the new company(ies).

Surveillance Audits

A certified client shall be required to follow a set surveillance audit program as determined by a risk assessment process completed by the CB at the completion of each audit. This risk assessment shall be implemented by the completion of the following scoring table (which should be included in the audit report):

Question	Performance of 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[1] 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	

[1] A borderline pass, under the previous standard, was considered a pass that occurs when one less amber indicator is received then would be required to fail (ie. 5 green indicators and 4 amber indicators) or when a company is certified with equal number of amber and green indicators.

The relevant audit frequencies are provided in the Table below:

	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

Remote Audit

A remote audit shall consist of a desk based study. The client shall be asked to provide documentation showing the system in place. Should the documentation provided not be satisfactory then an on-site audit may be required.

Certified companies will be sent a reminder that a surveillance audit is due two (2) months before the anniversary date of the audit. It is then the certified organisation's responsibility to book and organise the audit. All audits must be completed up to a maximum of three (3) months after the anniversary date. Should this not occur, the certificate of the organisation will be cancelled, unless the organisation can demonstrate extenuating circumstances and also provide a suitable time-frame for the completion of the audit.

Un-scheduled Audits

Should it be felt necessary, SEG may request a CB to complete an un-scheduled audit against any component(s) of the SEG Standard.

The un-scheduled audits may take either the form of an on-site or remote audit (this will be specified by SEG directly). The costs of the un-scheduled audit will be covered by SEG.

Should the CB find no major[2] changes to the client's certification then the CB shall create a summary report only to be sent to the client and SEG sub-group.

Should major changes to the client's certification be noted during the un-scheduled audit, a complete report shall be drafted and sent to the client and SEG. In this case the costs of the audit shall be re-funded by the client to SEG. Should the client refuse to refund SEG then certification shall be suspended until such time as the outstanding money is reimbursed to SEG.

Use of the Sustainable Eel Standard label:

The provision of a SEG certificate does not provide a client with permission to use the logo on its products. The logo is owned by SEG. In order to gain permission to use the logo the following process is required:

[2] A major change is defined as one that results in a client's certification status being revoked.

1. The client must have been audited and have been approved against Criteria 1.2 and 1.3, trading in certified eel and traceability.
2. The client must have signed a written licence agreement with SEG for use of the Sustainable Eel Standard label (contact David Bunt at: standard@sustainableeelgroup.org)
3. Proposed packaging/labelling will have been approved by SEG prior to use (guidance is available for the production of labels)

Further details on the conditions of the use of the Certificate, label and printing of labels will be available on the SEG website: www.sustainableeelgroup.org under the section 'About the SEG Standard'.

13.3 Failures and Transgressions of the Standard

Failures

Should the client fail an initial audit, the certificate will not be awarded, however, the client will be provided with a full report detailing the reasons for the failure and the measures that need to be undertaken to satisfy the criteria for awarding the certificate. In the case of a re-audit the certificate will be suspended until such time as the failure has been rectified.

Transgressions

If there is credible information or significant suspicion that a client is not achieving a component of the standard between audits, the SEG Standard Panel will investigate the facts. Depending on the seriousness of the alleged breach, it may be deemed necessary to suspend the client's certificate whilst the investigation is carried out. Investigation may include requiring the CB to undertake an unscheduled audit.

The client may be required to provide evidence to answer questions posed in an investigation. If the client is unable to provide proof of their case in support of their re-assessment, the Standard Panel will apply the 'balance of probability' test in forming their view.

If the client is found to be guilty of the allegations, the certificate may be withdrawn for periods between 3 months and 2 years, depending on the severity of the transgression and any mitigating circumstances.

Investigating alleged breaches of the Standard will be undertaken with great care and balanced objectivity. Clients should be considered innocent until proven guilty, though the balance of probability test will be applied. It is noted that in the competitive world of business, information can be provided vindictively by rivals. At the same time, the credibility and reputation of the SEG Standard must be maintained.

Investigation Procedure

The following procedure will be applied. It has been developed based on experience of such reports since 2011.

1. SEG Panel Chair receives report or information of alleged transgression. This could be a press report or from an informant in the sector.
2. SEG Panel Chair seeks to verify the report via independent sources, such as police and local enforcement authorities, to understand if the report is credible.
3. Allegations are presented to the client, and the client asked to provide an explanation and their version of events. Clients will be advised that there is a possibility of suspension of the certificate whilst the investigation is carried out

4. Depending on the outcome of those initial enquiries, the SEG Panel may need to undertake a more detailed investigation – to interview the client and potential witnesses (however, if there is a legal case, access to evidence may be limited)
5. If, on the balance of probability, it is concluded that there is a case to answer, the Certificate will be suspended, pending the outcome of further investigations. The suspension will be stopped if and when credible evidence is presented that reverses the balance of probability of guilt.
6. Note, suspension does not mean withdrawal of a Certificate, it is temporary, pending the outcome of further investigations. If found not guilty, the suspension will be lifted and the Certificate immediately re-enacted.
7. If the client is found guilty of the allegations, the Certificate will be withdrawn for a commensurate period. After that period, the client can seek re-assessment for a new certificate. Note the timescales in Component 1 will apply.

13. Measures

The following measures and targets will be applied to identify the impact this Standard is having on its objective to restore eel populations. It identifies targets (the benefits sought) for each component of the standard, and also for the standard overall, the measures by which those targets will be tested. Once agreed, the mechanisms for monitoring will be developed, using existing mechanisms wherever possible. It collates the Targets and Measures listed in the Standard Criteria above.

These will form the basis of the Impacts Code, to be developed under the ISEAL membership application process.

Component	Targets & Measures
1. Commitment to Legality & Sustainability	• The illegal trade (measured as the unaccountable reported catch in Europe) reduces by 10% per year over the next 10 years. • In 10 years (2027) the level of illegal trade has reduced from 40% of the total catch to less than 5%
2. Trading in sustainable eel	• The number of businesses achieving the standard increases by 15% per year, over the next 10 years, from 14 now, to 60 in 2027 • The proportion (by weight) of the market that is from certified sustainable sources increases by 15% per year, from 5% now to 75% in 2027
3. Traceability	• Auditors report a high confidence (90%+) in the quality of records of a high proportion (90%+) of those assessed • All those handling certified eel are using the SES logo to label the product and do so correctly • Reports of transgressions are handled promptly and fairly
4. Biosecurity	• All suppliers provide and seek evidence of bio-security • All suppliers have high quality, effective, bio-security plan • There are no, or very rare, examples of diseases or alien species associated with a batch of certified eel
5. Glass eel fishing	• The amount (weight) and proportion (%) of glass eels caught from each certified and non-certified fisheries will be monitored. The proportion from certified fisheries increases from ? % to 90% over the next 10 years • Survival rates will be monitored and targets set to seek a continuous improvement in survival • Fishery authorities will develop increasing confidence in fishery data • The proportion of certified glass eels sold to certified buyers will be measured. The target to be 95% in 2027. • The unaccountable & probable sale to uncertified & illegal exports to be measured through mass-balance analysis of catch-declaration systems, to support the target in Component 1, i.e. In 10 years (2027) the level of illegal trade to reduce from 40% of the total catch to less than 5%
6. Yellow & silver eel fishing	• The amount (weight) and proportion (%) of adult eels caught from each certified and non-certified fisheries will be monitored. The proportion from certified fisheries increases from 0 % to 50% over the next 10 years • Fishery authorities will develop increasing confidence in fishery data to make fisheries management decisions

7. Eel buying and trading	• The amount (weight) and proportion (%) of eels traded by each certified and non-certified traders will be monitored. The proportion from certified traders increases from ? % to 90% over the next 10 years • Survival rates will be monitored and targets set to seek a continuous improvement in survival
8. Eel Farming	• An increasing number and proportion of farms, from 2 and 5% to 35 and 90% in 10 years are certified. In 10 years, the total proportion of certified eel that passes through eel farms is 90%. • 60% by number of eels from fish farms is provided for restocking
9. Restocking	• Silver Eel escapement in the recipient catchment is measured with reasonably confident calculation • Restocking is measured, with reasonably confident calculation, to have made a measurable increase in silver eel escapement. • Silver eel escapement is increasing towards or at the 40% target
10. Wholesale & retail	• An increasing number and proportion of wholesalers and retailers provide certified eel, from 5% now to 90% in 10 years • An increasing proportion of total retail sales is of certified eel, from 5% now to 75% in 10 years
11. Contribution to Healthy Aquatic Ecosystems	• Annual increase in the number of companies seeking the SEG Standard, from 0 now to 20 in 10 years • 10% pa increase in the value of eel conservation and restoration projects, doubling from £20M per year now to £40M in 10 years • 10% pa increase in the number for eel conservation projects
The Standard Overall	• The number of businesses achieving the standard increases by 15% per year, over the next 10 years, from 14 now, to 60 in 2027 • In 10 years (2027) the level of illegal trade has reduced from 40% of the total catch to less than 5% • By 2018, there is a supply chain of certified sustainable eels from fisheries to retailers providing choice to customers. The choice and proportion increases by 10% per year over the next 10 years • An increasing proportion of total retail sales is of certified eel, from 5% now to 75% in 10 years • Sustainable eel products are labelled with the SES logo; suppliers and consumers have confidence that the label is credible and they understand what it means • 60% of eels by number from buyers and farms are provided for restocking • Silver eel escapement achieves the 40% target in an increasing number of river catchments • SEG certified suppliers have high standards of biosecurity, and the risk and incidence of transferring diseases and alien species is very low • 10% pa increase in the value of eel conservation and restoration projects • The standard is accredited by ISEAL, helping SEG to achieve ISEAL Associate Membership in February 2018 and Full ISEAL membership in February 2019 • Thereafter to receive positive feedback on SEG activities, aims and objectives from NGOs such as WWF (Holland), the Good Fish Foundation and the Marine Conservation Society that it is acceptable to eat eel from sustainable sources

To comment on this document, download this form

(http://www.sustainableeelgroup.org/wp-content/uploads/2017/01/SEG-Standard-FeedbackV1.2.docx)

and send it to standard@sustainableeelgroup.org by midnight on Monday 31 July.

Sustainable *Eel* Group

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1 June 2017

For further information please see: www.sustainableeelgroup.org

Or contact us at: standard@sustainableeelgroup.org

Registered address: Fishmongers Hall, London Bridge, London. EC4R 9EL

Sustainable *Eel* Group

The Sustainable *Eel* Standard

Version 6.0, Draft 1. For consultation.

2 June – 31 July 2017

www.sustainableeeelgroup.org

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