

# SEPA's new finfish aquaculture regulatory framework

04 June 2019

A new firm, evidence-based regulatory framework has been introduced for Scotland's finfish aquaculture sector by the Scottish Environment Protection Agency (SEPA), one of a number of organisations regulating the sector. The framework will further strengthen the protection of the marine environment for the people of Scotland.

- New firm, evidence-based revised regulatory framework introduced for Scotland's finfish aquaculture sector by the Scottish Environment Protection Agency (SEPA), one of a number of organisations regulating the sector.
- Developed following twenty-two months of work by SEPA and implements proposals announced in November 2018 which were subject to Scotland-wide consultation.
- The framework follows 2018 SEPA research into the impact of Scottish salmon farms, peer reviewed and published in international journal, *Science of the Total Environment*.

Launched on 1<sup>st</sup> June 2019, the revised regulatory framework follows twenty-two months of work by SEPA and implements proposals announced in November 2018 which were subject to Scotland-wide consultation.

The framework follows 2018 SEPA research into the impact of Scottish salmon farm medicine, peer reviewed and published in international journal, *Science of the Total Environment*.

The new framework, which will apply to all new Scottish finfish aquaculture applications, includes:

## **MORE POWERFUL MODELLING USING THE BEST AVAILABLE SCIENCE**

The new regulatory framework will take advantage of more accurate computer modelling approaches that will improve our understanding of the risk to the local environment and allow assessment of the larger-scale impacts including interactions with other farms.

The science about fish farming is very complex and the new approach will bring the aquaculture sector up to date with the modelling practices which are being used for other industrial sectors where there is a longer history of operation and analysis.

## **A NEW TIGHTER STANDARD FOR THE ORGANIC WASTE DEPOSITED BY FISH FARMS**

Marine pen fish farming across Scotland operates using open-net pens. Fish faeces; any uneaten food; used fish medicines and other chemical treatments escape from these pens into the marine environment. The heavier, organic

particles (the fish faeces and uneaten food) together with any medicines sticking to them are deposited on the sea floor. Natural biological processes then break down and assimilate the material over time.

The tighter standard limits the spatial extent of the mixing zone around farms. The controls applied to these mixing zones will bring them into equivalence with modern practice on mixing zones for other waste effluent discharges into the sea, including those from urban waste water.

### **NEW APPROACH TO SUSTAINABLE SITING OF FARMS**

The combination of a new standard, a more accurate model and enhanced monitoring will allow the siting of farms in the most appropriate areas where the environment can assimilate wastes. It allows SEPA to better match biomass to the capacity available in the environment and continue to assess that through the operation of the site.

The new framework encourages operators to site and operate fish farms in environmentally less sensitive waters and use improved practices and technologies, such as containment, to reduce environmental impacts. It may allow for the approval of larger farms than would have been traditionally approved previously, provided they are appropriately sited in sustainable locations.

SEPA has seen some industry operators successfully developing new approaches such as non-chemical ways of managing fish health. Our new framework supports these encouraging developments.

### **ENHANCED ENVIRONMENTAL MONITORING**

Operators are now required to invest in more accurate monitoring, including of waste coming from fish farms. Officers are already engaged in a programme of unannounced visits to confirm compliance with regulatory requirements. SEPA will also increase and strengthen monitoring of the impact of fish farms in surrounding areas.

### **INVOLVING COMMUNITIES AND STAKEHOLDERS**

As one of a number of organisations regulating finfish aquaculture, SEPA believes its new firm, evidence based framework has the potential to significantly improve the environmental performance of the industry. Recognising the diverse range of views on finfish aquaculture, SEPA held a Scotland-wide consultation where 275 people attended nine community drop-in events and 28 one to one meetings were facilitated between SEPA specialists and stakeholder groups. SEPA continues to work with all stakeholders as it implements the new framework and will establish a new National Aquaculture Stakeholder Advisory Panel.

SEPA is considering whether moving to using a feed limit or retaining a biomass limit in the permit is the most effective parameter to use to regulate the scale of impact from fish farms. Over the next three months, SEPA will consult with all interested stakeholders on these options before a final decision is made. In the interim, organic waste releases will continue

to be limited using fish biomass.

Terry A'Hearn, Chief Executive of the Scottish Environment Protection Agency, said:

"As one of a number of organisations regulating finfish aquaculture, SEPA is clear that our job is to make sure environmental standards protect the marine environment for the people of Scotland and we make sure the industry meets those standards.

"Implementing our new firm, evidence-based revised regulatory framework, which follows over twenty-two months of work, more science and more listening to stakeholders than ever before, is an important milestone. It makes powerfully clear our aspirations and requirement that the industry reach and maintain full compliance with Scotland's environmental protection laws, where SEPA will help those investing in innovation and moving beyond compliance.

"It makes clear too our own commitment to more stringent science, modelling, monitoring, and unannounced inspections and to continuing to listen to communities, NGOs and industry through SEPA's new National Aquaculture Stakeholder Advisory Panel."

ENDS

**NOTES TO EDITORS:**

**SEPA'S AQUACULTURE HUB**

---

## **North East schools and environmental groups gather to become more sustainable**

31 May 2019

International School Aberdeen (ISA) hosted this year's United Nations Sustainable Development Goals Conference on Thursday 30th May.

ISA opened its doors to children from twelve schools from across Aberdeen City and Shire and provided an opportunity to build relationships and learn how to address and work towards reaching the United Nations (UN) sustainability development goals locally and globally.

In its third year, the collaborative event brought together eco minded students as well as environmental organisations from the North East to share ideas and showcase how they are working towards supporting the 2030 agenda

for the UN's on-going ocean science for sustainable development plans.

Held in the impressive ISA Queen Elizabeth Theatre, pupils heard from the keynote speaker, Professor Colin Moffat, Senior Scientific Advisor to the Scottish Government for Marine who talked around keeping a clean, healthy and resilient ocean. Professor Moffat kicked off the event and commented: "Children are the leaders and scientists of our future; therefore, it is important to reinforce global sustainability challenges including climate change, biodiversity and contaminants which affect all our lives. Events like this bring communities together and hopefully we see some rising ambassadors who can make a difference to support sustainability in our seas and oceans as we push hard to improve our eco-systems".

The conference attracted pupils from schools including Banchory Academy, Bridge of Don Academy, Bucksburn Academy, Kemnay Academy, Fernielea Primary, Kittybrewster Primary, Muirfield Primary, St Joseph's Primary, St Margaret's School for Girls and the Robert Gordon's College and The Gordon Schools. Throughout the day, each school presented their goals and highlighted how they planned to tackle sustainable issues.

Primary 6 pupils from Fernielea Primary School also performed two songs at the conference after taking part in an innovative project, developed in partnership by the Scottish Environment Protection Agency (SEPA) and Scotland's culture and sustainability charity Creative Carbon Scotland, to explore how creative approaches can help raise levels of flood awareness.

ISA's eco club led the event's workshops and various representatives from North East environmental and sustainability groups were on hand to discuss how the pupils can be more environmentally conscious at home and in the classroom. In the ISA Street, lots of engagement was seen through a variety of displays, along with projects being showcased from the Miniature Earth Learning Project as well as Aberdeen Climate Action, Aberdeen for A Fairer World Fairtrade, Grampian Regional Equality Council, Marigold & Mo, One Seed Forward, Quids In Theatre Company, Recycle for Aberdeen, Repair Café, CFINE, Sustain Energy and Vegan Outreach Scotland.

Closing the event, ISA Head of School, Nicholas Little said, "It was brilliant to see pupils from across the North East enthusiastically sharing their ideas on Sustainable Development goals and learning from each other on issues that affects us all. The UN has opened our eyes to see the problems that our oceans and its inhabitants tackle every day and it is encouraging to see children who are keen to become more sustainable. I have no doubt that if our communities become more environmentally sustainable at a local level it would have a positive impact on our climate internationally".

Dr David Pirie, SEPA Executive Director, said: "The scale of environmental challenges facing humanity is enormous and there is a real urgency to act. Every day SEPA works to help Scotland prepare more powerfully for future increased flooding in the face of clear science on climate change. Getting the next generation involved in understanding how flooding happens is a vital part of how we do that, helping local communities become more resilient. We hope that the children will continue to spread the word to their friends and

families on how they can be flood-prepared in a changing climate."

Ends

---

## **More of Scotland's bathing waters rated as 'excellent' as the 2019 season begins**

 31 May 2019

With hundreds of thousands of Scottish families and visitors expected to head to Scotland's beaches for the bathing season (1 June – 15 September), the Scottish Environment Protection Agency (SEPA) has revealed that more of the country's 86 designated bathing waters are meeting the 'excellent' classification rating (32%).

The above assets are available for print, online and broadcast media to use to illustrate this story. Please [click through to our media gallery](#) to download them – no registration is required. All related items will be shown on the same page.

- More bathing waters (32%) have been rated as 'excellent' than since the tighter standards first came into force in 2015.
- Fewer bathing waters have also been rated as 'poor' – and partnership projects are currently underway to maintain progress and further improve bathing waters including the 10 rated as 'poor.'
- Overall 88% of Scotland's designated bathing waters have met the strict environmental water quality standards for 2019.
- Water quality information is available by 10.00 am every day during the season for 31 bathing water locations at [sepa.org.uk/bathingwaters](http://sepa.org.uk/bathingwaters), via Beachline and live electronic beach signage.

Rating	Number of bathing waters	Percentage
Excellent	28	32
Good	35	41
Sufficient	13	15
Poor	10	12
<b>OVERALL</b>	<b>86</b>	<b>100%</b>

SEPA has also revealed that 88% of Scotland's bathing waters have met the

strict environmental water quality standards overall and that fewer bathing waters have been rated as 'poor' since the tighter standards first came into force in 2015.

In the Highlands and Islands improvements have been seen with Dores moving up to 'excellent' and Nairn (Central) and Thurso both moving up to a 'good' rating. In North-East Scotland Lunan Bay and Peterhead (Lido) have both improved to 'excellent', with Aberdeen moving up to 'good'. In South-East Scotland Dunbar (East) and Thorntonloch have both improved to 'excellent' with Yellow Craig and Seton Sands both improving to 'good'. This year Portobello (West) in the outskirts of Edinburgh and Cruden Bay in Aberdeenshire have both passed for the first time with Portobello (West) achieving the 'sufficient' classification and SEPA rating Cruden Bay as 'good'.

Ranked as the most beautiful country in the world by Rough Guide, Scotland's natural environment is world-renowned. Its beaches range from remote, unspoilt Hebridean sands to golden stretches along northern and eastern coves and popular Western shores.

This season beach users will have access to real time water quality forecasts, and live information on any pollution incidents, thanks to SEPA scientists who sample the water and combine with state-of-the-art weather data to provide daily bathing water forecasts throughout the three and a half months of the bathing season. These are available at 31 bathing water locations by 10am every morning through:

- [sepa.org.uk/bathingwaters](http://sepa.org.uk/bathingwaters) – SEPA's website
- 08452 30 30 98 – SEPA's Beachline
- Live electronic signs at 31 designated beach locations

Calum McPhail, SEPA Environmental Quality manager, said:

"Every day SEPA works to protect and enhance Scotland's stunning environment. It is great news that more bathing waters have met the 'excellent' standard than since the new tighter standards first came into force in 2015 and we are also pleased to reveal that fewer bathing waters are rated as 'poor'.

"Each bathing water is different with a unique set of potential water quality challenges. Working with partners we're continuing our focus on bathing waters rated as 'poor' with tailored improvement plans, prepared by SEPA, well underway. Last summer we reported that, having been a priority project, both Nairn sites had passed for the first time. This season we see that in addition to Nairn (East) continuing to meet last year's standard, Nairn (Central) has improved even further to a 'good' rating – and Portobello (West) and Cruden Bay have both passed for the first time.

"We are committed to providing real time information on bathing water quality to ensure those heading to Scotland's beaches can have a great day, and through partnership working we hope to see further improvements in bathing water quality in the coming months and years."

Environment Secretary Roseanna Cunningham said:

"I am pleased to see so many of our designated bathing waters meeting the strict environmental water quality standards, and that a growing number are achieving the top rating. While a trip to the beach may always be dependent on our unique Scottish summer, beachgoers can have confidence that our bathing waters are being constantly monitored and their quality ensured.

"Scotland's shorelines and waters are among the most beautiful in the world and significant progress has been made, in the space of just a few years, to improve standards still further. In cases where a lower rating has been achieved – often due to individual circumstances – SEPA and its partners are working through a comprehensive course of action to drive improvement."

A Scottish Water spokeswoman said:

"We welcome the continued improvement in bathing water performance. Scottish Water has undertaken significant investment in partnership with SEPA in recent years to support bathing water quality.

"We will continue to work with partner organisations to improve bathing water quality where required. People can help look after our waters by remembering not to put the wrong items down toilets and sinks as these can block drains and sewers and cause pollution on beaches."

**Ends**

#### **2019 results in full**

##### **Highland and Islands**

(9 excellent, 5 good, 2 sufficient, 0 poor)

Achmelvich	Excellent
Dores	Excellent
Dornoch	Excellent
Dunnet	Excellent
Ettrick Bay	Good
Findhorn	Good
Gairloch Beach	Excellent
Ganavan	Excellent
Loch Morlich	Excellent
Lossiemouth (East)	Sufficient
Machrihanish	Excellent
Nairn (Central)	Good
Nairn (East)	Sufficient
Rosemarkie	Good
Sand Beach	Excellent
Thurso	Good

**Lothian, mid Scotland and Fife**  
(7 excellent, 6 good, 2 sufficient, 2 poor)

Aberdour (Silversands)	Excellent
Aberdour Harbour (Black Sands)	Good
Anstruther (Billow Ness)	Excellent
Burntisland	Good
Craill (Roome Bay)	Excellent
Elie (Harbour) and Earlsferry	Excellent
Elie (Ruby Bay)	Excellent
Fisherrow Sands	Poor
Kinghorn (Harbour Beach)	Poor
Kinghorn (Pettycur)	Good
Kingsbarns	Excellent
Kirkcaldy (Seafield)	Good
Leven	Good
Portobello (Central)	Sufficient
Portobello (West)	Sufficient
St Andrews (East Sands)	Good
St Andrews (West Sands)	Excellent

**North East Scotland**  
(6 excellent, 8 good, 3 sufficient, 0 poor)

Aberdeen	Good
Arbroath (West Links)	Good
Balmedie	Excellent
Broughty Ferry	Excellent
Carnoustie	Good
Collieston	Good
Cruden Bay	Good ( <i>SEPA-rating</i> )
Cullen Bay	Sufficient
Fraserburgh (Philorth)	Excellent
Fraserburgh (Tiger Hill)	Sufficient
Inverboynie	Sufficient
Lunan Bay	Excellent
Monifieth	Good

Montrose	Excellent
Peterhead (Lido)	Excellent
Rosehearty	Good
Stonehaven	Good

### **Solway**

(0 excellent, 3 good, 0 sufficient, 4 poor)

Brighouse Bay	Poor
Carrick	Good
Dhoon Bay	Poor
Mossyard	Good
Rockcliffe	Poor
Sandyhills	Poor
Southerness	Good

### **South East Scotland**

(5 excellent, 9 good, 0 sufficient, 1 poor)

Broad Sands	Good
Coldingham	Good
Dunbar (Belhaven)	Good
Dunbar (East)	Excellent
Yellow Craig	Good
Eyemouth	Poor
Gullane	Excellent
Longniddry	Good
North Berwick (Milsey Bay)	Good
North Berwick (West)	Good
Pease Bay	Excellent
Seacliff	Excellent
Seton Sands	Good
Thorntonloch	Excellent
Whitesands	Good

### **West Scotland**

(1 excellent, 4 good, 6 sufficient, 3 poor)

Ayr (South Beach)	Poor
Culzean	Sufficient
Girvan	Sufficient
Heads of Ayr	Poor

Irvine	Poor
Largs (Pencil Beach)	Good
Lunderston Bay	Good
Luss Bay	Sufficient
Maidens	Sufficient
Millport Bay	Excellent
Prestwick	Good
Saltcoats/Ardrossan	Sufficient
Seamill	Good
Troon (South Beach)	Sufficient

### **The Bathing Water Directive**

Under the Bathing Water Directive:

- classifications are calculated at the end of the 2018 season for display on all beaches at the start of the 2019 season;
- water quality classification applies for the whole season;
- the overall condition of a location is described through bathing water profiles.

### **Wet weather problems**

- Diffuse pollution is the largest pollution pressure on the water environment in Scotland, but it can be difficult to identify and control. The risk of diffuse pollution is worse during rainfall because nutrients, soil, chemicals and faecal bacteria can be washed from land into the surrounding water environment. Single discharge points might not seem to be an issue, but several combined across a whole river catchment can significantly affect water quality, including in EU designated bathing waters. Land and run-off management practices play a pivotal role in diffuse pollution mitigation.
- Another source of pollution at beaches can be combined sewer overflows (CSOs). During heavy rainfall CSOs, which discharge diluted but minimally treated sewage to watercourses and coastal waters, are essential to prevent flooding. However, during extended periods of rain, which are not uncommon in Scotland, the combined effect of CSOs in a catchment can have a negative impact on the water quality. To minimise the impact of combined sewer overflows on water quality, SEPA imposes conditions requiring sewage litter and debris removal and on the location and frequency of their operation. SEPA continues to work closely with the Scottish Government, Scottish Water and the Water Industry to ensure that planned capital investment programmes aimed at upgrading sewerage infrastructure throughout the country are prioritised to maximise environmental benefits.

**ENDS**

---

## **BBC Panorama response**

20 May 2019

On 20th May 2019, BBC One's flagship investigations documentary 'Panorama' will focus on the Scottish salmon industry. The Panorama programme, entitled 'Salmon Farming Exposed', will examine the environmental performance and practices of the industry. It also looks at the regulatory oversight of the industry, including SEPA's role.

In November 2018, SEPA, as one of a number of organisations regulating finfish aquaculture, announced firm, evidence-based proposals for a revised regulatory regime that will strengthen the protection of the marine environment for the people of Scotland. The regime will be introduced next month.

The new regime follows twenty-two months of work by colleagues across the agency, a 2017 consultation, and two Scottish Parliamentary committees, one of which concluded that "the status quo is not an option", adding that the industry's expansion goal "will be unsustainable and may cause irrecoverable damage to the environment" unless governance and practices are improved markedly.

Terry A'Hearn, Chief Executive of the Scottish Environment Protection Agency, said: "Whilst a high quality environment and abundant freshwater resources are vital to Scotland's aquaculture sector, it's an industry that attracts polarised positions, from those who cite its economic contribution to those who oppose its existence.

"As one of a number of organisations regulating finfish aquaculture, SEPA is clear that our job is to make sure environmental standards protect the marine environment for the people of Scotland and we make sure the industry meets those. That's unequivocally our focus.

"Consequently across the last twenty-two months we've done more science, more analysis and more listening than ever before. We announced enhanced environmental monitoring and the creation of new SEPA enforcement unit to ensure compliance is non-negotiable. Officers are currently engaged in a programme of unannounced visits to confirm compliance with regulatory requirements.

"As an organisation based on law and evidence, SEPA routinely reviews data from operators, from SEPA monitoring and from third parties. Whilst it would be inappropriate to pre-judge potential outcomes, SEPA will fully investigate suggestions of alleged industry wrongdoing made by BBC Panorama.

"SEPA is unable to comment further on its current audit and unannounced inspection programme underway at present."

Find out more:

---

## **SEPA invites Elgin and Forres locals to learn about the new and improved flood warnings for River Findhorn and River Lossie**

 15 May 2019

The Scottish Environment Protection Agency (SEPA) is calling on locals in Elgin and Forres to get flood-prepared by attending a special drop-in session on the new and improved flood warnings for the River Findhorn and River Lossie.

- Special drop-in events will be held at Elgin Library and Forres Town Hall to help locals learn about new and improved flood warnings
- More than 1,350 homes and businesses are already signed up to receive advance notification of flooding for the River Findhorn and River Lossie
- Floodline customers receive free advance notification when flooding is predicted providing crucial time to get flood-prepared.

More than 1,350 homes and businesses are already signed up to receive flood warnings for the River Findhorn and River Lossie which in recent years have both experienced a number of notable flood events with significant impacts. SEPA has now improved the flood warnings to take into account the building of flood alleviation schemes at Forres, Elgin and Dallas, and has also developed three new flood warning areas covering the Lossie.

Locals are invited to attend a drop-in session at Elgin Library from 2pm to 7pm on **Tuesday 21 May**, and at Forres Town Hall from 2pm to 7pm on **Wednesday 22 May** to find out more about the new and improved flood warnings and how signing up to receive free advance warning of flooding can help you be flood-prepared. SEPA has also written to the local community, including 120 householders and businesses in the new flood warning areas, to help them find out more about the benefits of signing up to Floodline.

As Scotland's national authority for flood forecasting and warning, SEPA operates a 24-hour Flood forecasting and warning service to inform first responders, local authorities and emergency services of emerging flood events and the potential impact on local communities and critical infrastructure. Operating 365 days a year, over 300 Flood Alerts and 400 Flood Warnings are issued annually via Floodline directly to 26,944 customers nationwide, with many thousands more accessing them online.

Vincent Fitzsimons, SEPA's Head of Hydrology, said:

"Every day SEPA works to help Scotland prepare more powerfully for future increased flooding in the face of clear science on climate change.

"As many residents and businesses know, flooding is a real threat. We hope that as many people as possible who live and work in, or travel through, Elgin and Forres will be able to come along to our drop-in sessions about the new and improved flood warnings for the River Findhorn and River Lossie. Our officers will explain how our Floodline service operates and how it can help everybody be prepared for the possibility of flooding.

"Our Floodline customers will receive free advance notification when flooding is predicted, providing crucial time to prepare and protect themselves, and their properties against the disruption and damage which flooding can cause."

If members of the public have already signed up to receive the Flood Warnings they do not need to sign up to Floodline again to receive the improved warnings. Through the Floodline service SEPA currently provides advance flood warnings for over 280 areas across Scotland, and people can sign up to receive free notifications of flood warning messages direct to their choice of mobile or landline numbers at [sepa.org.uk/floodingsignup](http://sepa.org.uk/floodingsignup) or by calling 0345 988 1188.

**Ends**