

# Get a better understanding of watercourses with OS MasterMap Water Network

✘01 May 2019

Ordnance Survey (OS), the Environment Agency (EA) and the Scottish Environment Protection Agency (SEPA) have collaborated to bring together a nationally consistent view of Great Britain's watercourses called OS MasterMap Water Network.

For over two decades EA has carefully mapped the flow of water in rivers across England and Wales to help protect communities from flooding and to improve habitats for wildlife through their Detailed River Network. This new collaboration combines the data from the Detailed River Network with SEPA's data on Scotland's watercourses to produce one comprehensive view of all watercourses across Great Britain. This project led to the creation of OS MasterMap Water Network and, following its initial launch in 2015, became a full product in April 2019.

This new dataset is a crucial element in understanding our natural environment. As the only detailed, heighted water network of Great Britain, OS MasterMap Water Network is continually updated and improved, showing the flow and precise course of rivers, streams, lakes and canals, at a national and local level.

OS MasterMap Water Network will support analysis used for planning and policy initiatives. This would include managing and reporting of water quality, water resources, fisheries status, mapping navigations, predictive modelling, risk assessment, regulation, incident response and a host of other river-related initiatives, from permitting applications to catchment delineation.

Since its initial launch in 2015, OS, EA and SEPA have continued to work together to improve the product. As a result, we have made 850,000 improvements to the data which focused on watercourse connectivity, flow direction, contiguous naming and identified primary flow path. Joint working has identified and delivered improvements to successive versions of the dataset through testing. OS and EA are delighted to confirm that EA will start to migrate from their existing Detailed River Network to the OS MasterMap Water Network and will be progressively implementing this across all systems and projects where a network of watercourses is required.

The principal benefits of using the OS MasterMap Water Network are

- Continuous maintained data across geographic boundaries to allow seamless data exchange
- Common references for sharing data with other organisations using the product

- Up-to-date data
- Greater extent e.g. more watercourses mapped in fenland areas
- Better correspondence with OS base data
- Greatly reduced data management overheads for users

Martin Whitworth, Deputy Director for Data and Systems at the Environment Agency, said:

“This exciting new collaboration between the Environment Agency and Ordnance Survey is an important step forwards in how we collect and use information about our rivers.

“It will give us greater insight into river flows right across Great Britain, helping us to better protect communities in England from flooding whilst also bringing a host of benefits in terms of planning, construction and helping to inform important environmental conservation work.”

With the release of OS MasterMap Water Network, EA will no longer need to maintain their Detailed River Network as this data will now be supplied and maintained by Ordnance Survey. As a result, the Detailed River Network will be withdrawn from the market and this new product will replace it. OS MasterMap Water Network is available to all public sector organisations for free at the point of use and is available through commercial terms for all other organisations.

As part of the collaboration to deliver the OS MasterMap Water Network, OS has worked closely with SEPA and Scottish Government to deliver additional detailed information on the location of culverts managed by Local Authorities. The culvert information provides the underground connections between watercourses which are vital to understand as part of the “Flood Risk Management (Scotland) Act 2009”. OS completed the inclusion of the identified Scottish Local Authority culverts at the end of 2017 and are starting to work with SEPA and Scottish Government on how this information will be maintained going forward.

Dr David Pirie, SEPA Executive Director, said:

“Every day SEPA works to protect and enhance Scotland’s environment, including helping Scotland prepare more powerfully for future increased flooding in the face of clear science on climate change. This new more detailed map of Scotland’s rivers will enhance SEPA’s reporting of environmental data and provide better information on the risk of flooding.”

For further information on OS MasterMap Water Network visit [www.ordnancesurvey.co.uk/waternetwork](http://www.ordnancesurvey.co.uk/waternetwork)

**Ends**

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# Mossmorran flaring community update

✘ 27 April 2019

On Saturday, 27 April, the Scottish Environment Protection Agency was informed by ExxonMobil Chemical Limited that elevated flaring had ceased. Exxon further advised ground flaring was continuing 'above normal levels' for a 'short period'\*.

- SEPA informed by ExxonMobil Chemical Limited that elevated flaring had ceased. Exxon further advised ground flaring was continuing 'above normal levels' for a 'short period'\*.
- Follows the announcement by SEPA on Thursday 25<sup>th</sup> April 2019 of a formal regulatory investigation.
- SEPA is continuing to maintain its full operational response including regulatory, air quality and noise monitoring across the weekend.
- A further update on monitoring results will be published early next week.
- SEPA will confirm receipt of the 'Best Available Techniques' (BAT) assessment by Exxon, due next week.
- Following technical review, SEPA will provide an update ahead of a planned community meeting, which SEPA will attend, on Friday 17 May.
- SEPA Chief Executive, Terry A'Hearn, will directly discuss the incident and the urgency of actions with ExxonMobil Chemical Ltd Plant Manager, Jacob McAlister, on Monday 29 April.
- A summary of that conversation will be made available.
- In addition to its community update, SEPA has today provided a further update to elected members.
- Over 750 complaints have now been received to date by SEPA's 24 hour Pollution Hotline, one of the highest number for any single event.
- SEPA will continue to make information available as quickly as possible, within the constraints of protecting evidence in a live regulatory investigation, on our dedicated online hub, [www.sepa.org.uk/mossmorran](http://www.sepa.org.uk/mossmorran).

The update follows the announcement by SEPA on Thursday 25 April 2019 of a formal regulatory investigation into the flaring from the Mossmorran petrochemical plant in Fife.

SEPA is continuing to maintain its full operational response including regulatory, air quality and noise monitoring across the weekend which will continue to inform its live regulatory investigation. A further update on monitoring results will be published early next week.

A 'Final Warning Letter' was issued to ExxonMobil Chemical Ltd in April 2018 regarding flaring which was found to be "preventable and unacceptable".

In addition to SEPA and Health and Safety Executive investigations in 2018/2019, a tightening of permit conditions and an instruction to conduct a

'Best Available Techniques' (BAT) assessment, SEPA will confirm receipt of the BAT assessment next week.

Following technical review, SEPA will provide an update on the assessment ahead of a planned community meeting, which SEPA will attend, on Friday 17 May.

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Terry A'Hearn, SEPA's CEO, said:

"Exxonmobil have advised that after six long days and nights for local communities, elevated flaring has ceased. They advise however that ground flaring will continue for what they describe as a short period.

"Whilst the elevated flaring may have stopped, our full regulatory, air quality and noise monitoring response will continue across the weekend and our formal regulatory investigation, announced on Thursday, is just getting started. Whilst the Mossmorran complex is a major industrial facility where this type of flaring is a legitimate safety mechanism, this is happening too often and the level and extent of flaring is wholly unacceptable.

"Understanding the impact of flaring provided by local communities, families and individuals is vitally important and, as such, we would encourage people to continue to report impacts directly to us online at [www.sepa.org.uk/report](http://www.sepa.org.uk/report) or via our 24 Hour Pollution Hotline on 0800 80 70 60.

"We'll continue to make information available as quickly as possible, including a further update on monitoring results early next week. We'll do so within the constraints of protecting evidence in a live regulatory investigation, on our dedicated online hub, [www.sepa.org.uk/mossmorran](http://www.sepa.org.uk/mossmorran)."

(\*) Exxon Mobil Chemical Statement, 08:00 hrs 27 April 2019

**ENDS**

**Notes to editors**

- SEPA served Final Warning Letters on both operators in April 2018 for

flaring in June 2017. This followed an intensive investigation by SEPA, which included formal statements from local residents.

- During the investigation SEPA found that whilst flaring is an important safety feature in the event of a process fault, a series of maintenance failures led to elevated levels of unplanned flaring in breach of environmental controls between 12 and 18 June 2017.
- Residents were subject to considerable disturbance in their homes from noise, vibration and black smoke over the seven-day period in Summer 2017, during which a total of 74 complaints were received by the agency.
- Permit variations were served on both operators in June 2018 requiring ExxonMobil Chemical Ltd and Shell UK Ltd to ensure they take all appropriate preventative measures against noise and vibration emissions through the application of 'Best Available Techniques (BAT)' and ensure that no significant pollution is caused.
- Both ExxonMobil Chemical Limited and Shell UK Limited are required to complete an evaluation of the 'Best Available Techniques (BAT)' due shortly, to prevent and, where that is not practicable, reduce emissions of noise, vibration and smoke associated with flaring.
- Shell UK Limited is not involved in the current flaring event.
- A full copy of our Mossmorran complex investigation update published in February 2019 is available on our Mossmorran Hub [www.sepa.org.uk/regulations/air/air-quality/mossmorran-and-braefoot-bay-complexes/#investigationupdate](http://www.sepa.org.uk/regulations/air/air-quality/mossmorran-and-braefoot-bay-complexes/#investigationupdate)
- The update includes links to copies of the Final Warning Letters, Permit variations and interim reports on the evaluation of Best Available Techniques.
- SEPA's [Enforcement Policy](#) sets out the intent and principles underpinning our approach to enforcement action. The intent behind the enforcement action is to:
  - secure compliance and change the behaviour,
  - stop or reduce the risk of harm arising from the non-compliance to an acceptable level.

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## **SEPA launches formal regulatory investigation into ExxonMobil Chemical Limited Easter 2019 unplanned flaring as complaints exceed 600**

The Scottish Environment Protection Agency has today (25 April 2019) announced a formal regulatory investigation into the ongoing flaring from ExxonMobil Chemical Limited at the Mossmorran petrochemical plant in Fife.

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.

- SEPA launches formal regulatory investigation into ExxonMobil Chemical Ltd Easter 2019 unplanned flaring.
- Investigation announced as flaring enters its fifth day at the Mossmorran Fife Ethylene Plant.
- Move by SEPA follows 'Final Warning Letters' issued to ExxonMobil Chemical Ltd in April 2018 regarding flaring which was found to be "preventable and unacceptable".
- It also follows SEPA and Health and Safety Executive investigations in 2018/2019, a tightening of permit conditions and an instruction to conduct a 'Best Available Technologies' (BAT) assessment, due shortly.
- Over 600 complaints have been received to date by SEPA's 24 hour Pollution Hotline, one of the highest number for any single event.
- Whilst flaring is an important safety mechanism and is permitted through permit conditions, the latest event featured a full regulatory, air quality and noise monitoring response from SEPA.

The investigation was announced by SEPA Chief Executive, Terry A'Hearn, as flaring enters its fifth day at the Mossmorran Fife Ethylene Plant. The move by SEPA follows 'Final Warning Letters' issued to ExxonMobil Chemical Ltd in April 2018 regarding flaring which was found to be "preventable and unacceptable". It also follows SEPA and Health and Safety Executive investigations in 2018/2019, a tightening of permit conditions and an instruction to conduct a 'Best Available Technologies' (BAT) assessment, due shortly.

On Easter Sunday, 21 April 2019, SEPA responded to complaints of unplanned flaring at ExxonMobil Chemical Ltd, Mossmorran. Whilst flaring is an important safety mechanism and is permitted through permit conditions, SEPA deployed a full regulatory, air quality and noise monitoring response which will inform SEPA's understanding of the nature of the event.

With the operational response continuing across the duration of the incident, including regulatory and noise monitoring, air quality monitoring carried out on Monday 22 April showed no cause for concern.

With ExxonMobil Chemical Limited advising that flaring is likely to continue over the coming days, SEPA has reinforced to the site operators the importance of restarting the plant as quickly as possible with the minimal amount of elevated flaring.

Over 600 complaints have been received to date by SEPA's 24 hour Pollution Hotline, one of the highest number for any single event.

Terry A'Hearn, SEPA's CEO, said:

*"Every day, SEPA works to protect and enhance Scotland's environment and compliance with Scotland's environmental rules is simply non-negotiable. In addition to working hard to ensure ExxonMobil brings a halt to the flaring as quickly as possible, we have also launched this investigation into the incident.*

*"The unprecedented number of complaints we have received is a clear message and it's one that we have heard powerfully and clearly. I want to thank everyone who has taken the time to help us understand the impacts of this flaring, and I encourage people to continue to report to us.*

*"The Mossmorran complex is a major industrial facility, where this type of flaring is a legitimate safety mechanism, but it's been happening too often, and the current level and extent of the flaring from ExxonMobil Chemical Limited is unacceptable."*

SEPA will provide as much information, as quickly as possible, within the constraints of a live regulatory investigation. Updates will be provided across our online hub [www.sepa.org.uk/mossmorran](http://www.sepa.org.uk/mossmorran), where communities can sign up for email updates.

To report environmental incidents online please visit [www.sepa.org.uk/report](http://www.sepa.org.uk/report) or call our 24 Hour Pollution Hotline on 0800 80 70 60. Information received in these reports is important in helping SEPA understand the impacts of this unplanned flaring, and we encourage people to continue to report to us.

Due to the volume of calls received over the last few days there has been some pressure on the Pollution Hotline, and so people are encouraged to use our online reporting form via [www.sepa.org.uk/report](http://www.sepa.org.uk/report)


**ENDS**

#### **Notes to editors**

- SEPA served Final Warning Letters on both operators in April 2018 for flaring in June 2017. This followed an intensive investigation by SEPA, which included formal statements from local residents.
- During the investigation SEPA found that whilst flaring is an important safety feature in the event of a process fault, a series of maintenance failures led to elevated levels of unplanned flaring in breach of environmental controls between 12 and 18 June 2017.
- Residents were subject to considerable disturbance in their homes from noise, vibration and black smoke over the seven-day period in Summer 2017, during which a total of 74 complaints were received by the agency.
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- Both ExxonMobil Chemical Limited and Shell UK Limited are required to complete an evaluation of the 'Best Available Techniques (BAT)' due shortly, to prevent and, where that is not practicable, reduce emissions of noise, vibration and smoke associated with flaring.
  - Shell UK Limited is not involved in the current flaring event.
  - A full copy of our Mossmorran complex investigation update published in February 2019 is available on our Mossmorran Hub [www.sepa.org.uk/regulations/air/air-quality/mossmorran-and-braefoot-bay-complexes/#investigationupdate](http://www.sepa.org.uk/regulations/air/air-quality/mossmorran-and-braefoot-bay-complexes/#investigationupdate)
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## [Last chance to find Scotland's green business champions](#)

 23 April 2019

The search for Scotland's best green businesses is drawing to a close with just a few weeks remaining to enter the VIBES – Scottish Environment Business Awards and companies across Scotland are being encouraged to enter.

The awards, which are celebrating their 20<sup>th</sup> anniversary, are calling on businesses of all sizes and sectors across Scotland who are implementing sustainable practices to get in touch and apply before **5pm on Friday 10 May 2019**.

To help interested businesses find out more, a series of free roadshows are being held across Scotland and local companies are invited to find out more about the economic benefits of good environmental practices as well as hear from previous winners and receive support on the application process.

Since its inception in 1999, the VIBES Scottish Business Awards, have recognised and rewarded more than 150 businesses that have championed sustainability by identifying ways to tackle the impact on the planet by reducing consumption on its resources. This has included everything from increasing recycling and facilitating active travel to reducing consumption of raw materials by adopting a more circular approach.

Commenting, Environment Secretary Roseanna Cunningham, said: "We are all



aware of the urgent environmental issues affecting our planet, and businesses across Scotland have a vital role to play in helping to safeguard it for future generations.

“I look forward to the VIBES Awards celebrating those businesses that are leading on developing sustainable solutions and environmental practices while embracing a vibrant and innovative circular economy.”

This year’s award categories include: Leadership Scotland, Innovating Scotland, Product Scotland, Service Scotland, Hydro Nation Scotland, Circular Scotland, Moving Scotland, Adapting Scotland, Engaging Scotland, Partnership Scotland, Small Business Scotland.

As part of this year’s anniversary celebrations, a special Best of VIBES Award will also be presented at the official ceremony and will recognise a past winner – from a shortlist of the 10 best entries – that can demonstrate their continuous improvement and contribution to Scotland’s sustainable development.

Bob Downes, chair of SEPA and head of the VIBES judging panel, added: “The scale of environmental challenges facing humanity is enormous and there is a real urgency to act in light of what science is showing us.

“Businesses have a responsibility and it’s empowering to see so many organisations no longer viewing climate adaptation and environmental performance as a burden and cost but as an economic opportunity – it is these businesses that will thrive. We want to help Scottish businesses respond to these environmental challenges and reap the benefit and as we enter the 20<sup>th</sup> year of VIBES, we hope to inspire others to instigate change.”

The 20<sup>th</sup> anniversary awards ceremony will be held on 14 November at Doubletree by Hilton in Glasgow. Award sponsors to date include Adaptation Scotland, Mabbett & Associates Ltd, Scottish Government, ScottishPower, The Glenmorangie Company and headline sponsor, Chivas Brothers Pernod Ricard.

To obtain an application form please contact [vibes@sepa.org.uk](mailto:vibes@sepa.org.uk).

For more informant on VIBES – Scottish Environment Business Awards, please visit [www.vibes.org.uk](http://www.vibes.org.uk)

**ENDS**

**Notes to Editors:**

**A series of free VIBES – Scottish Environment Business Awards are being held at the following:**

- 26th April 12 to 2pm – **Glasgow** at the Virgin Money Lounge (Glasgow, G1 3BJ)
- 29th April 5 to 7pm – **Inverness** at the Mercure Inverness Hotel (Inverness, IV1 1DX) run in partnership with the Glenmorangie Company and the Institute of Directors (IoD) – this event includes a whisky tasting.

- 1st May 3 to 5pm – **Edinburgh** at the IoD office (Edinburgh, EH2 4DR) run in partnership with the Institute of Directors
- 2nd May 4 to 6pm – **Ayr** kindly hosted by Albion Environmental (Ayr, KA88 9ER)

Regional event spaces can be booked at <https://www.eventbrite.co.uk>

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## [Independent review of SEPA fish farm survey report on environmental impact of medicine use on Scotland's seabed published in international journal](#)

📅 10 April 2019

Detailed analysis produced by the Scottish Environment Protection Agency (SEPA) into the impact of fish farm medicines on Scotland's seabed has been validated by environmental experts and accepted for publication in the multi-disciplinary, international journal, 'Science of the Total Environment'.

- Independent review of SEPA Fish Farm Survey Report – 'Evaluation of a New Seabed Monitoring Approach to Investigate the Impacts of Marine Cage Fish Farms' published in international journal, 'Science of the Total Environment'.
- Technical analysis has undergone a peer review process which confirms the scientific robustness of SEPA's survey results into impact of fish farm medicines Emamectin Benzoate and Teflubenzuron.
- Published in November 2018, The Fish Farm Survey added to the weight of scientific evidence on fish farm medicine use in concluding that the existing standards for medicine did not adequately protect marine life.

Detailed analysis produced by the Scottish Environment Protection Agency (SEPA) into the impact of fish farm medicines on Scotland's seabed has been validated by environmental experts and accepted for publication in the multi-disciplinary, international journal, 'Science of the Total Environment'.

The technical analysis from SEPA's Fish Farm Survey '[Negative effects of the sea lice therapeutant emamectin benzoate at low concentrations on benthic communities around Scottish fish farms](#),' was accepted for publication in the international journal following an independent, peer review process by three environmental scientists and confirms the scientific robustness of SEPA's survey results.

The culmination of over two years' work, SEPA's [Fish Farm Survey Report](#) – 'Evaluation of a New Seabed Monitoring Approach to Investigate the Impacts of

Marine Cage Fish Farms', undertaken by specialist marine scientists using research vessel the Sir John Murray, was published in November 2018 as part of a series of firm, evidence-based proposals for a revised regulatory regime.

The survey focussed on the environmental impacts from eight Scottish fish farm sites and examined 302 chemical samples from 93 sample stations and 296 ecological samples from across 142 sample stations, to assess the scale and impact of fish farm medicines, Emamectin Benzoate (EmBz) and Teflubenzuron (Tef), which was last used in 2013.

Chemical analysis found the medicines were detected in 98% and 46% of samples respectively, with residues more widely spread and more persistent in the environment around fish farms than had previously been established. Moreover, the research concluded that the impacts of individual farms may not be contained to the vicinity of farms or their licenced environmental footprint.

The UK Technical Advisory Group (UK TAG), a partnership of the UK environment and conservation agencies, is in the process of developing its recommendations on new environmental standards for Emamectin Benzoate to the Scottish Government. Results from the survey were provided to UK TAG as part of their considerations and in the interim, SEPA has adopted a precautionary principle position which imposes a much tighter interim standard for the use of Emamectin Benzoate at any new site.

Dr David Pirie, Executive Director for Evidence and Flooding at the Scottish Environment Protection Agency, said:

"Every day, SEPA works to protect and enhance Scotland's environment and as an evidence based organisation, we are clear that sound environmental science is the foundation on which we build our key regulatory standards.

"By submitting the statistical analysis of our survey for rigorous peer review by leading environmental scientists, it confirms the robustness of SEPA's scientific approach and reinforces the validity of our findings that the existing standards were not adequate for protecting marine life."

Reviewed and co-authored by Biomathematics and Statistics Scotland (BioSS), expert statisticians provided specialist guidance on SEPA's scientific methods and facilitated the development of an improved, robust approach to the analysis of the survey's data.

Dr Katharine Preedy, a senior statistician within BioSS, said:

"Marine environments have complex interactions and human activity can affect many different aspects of the system.

"Open communication and collaboration between specialists in very different areas of science are therefore crucial to establishing a robust body of evidence upon which to base decisions about measures to protect marine life."

Published in November 2018, the Fish Farm Survey report formed a core element

of SEPA's proposals for a revised regime that will strengthen environmental regulation of the Finfish Aquaculture sector. Recognising the diverse range of views of finfish aquaculture, SEPA announced a seven-week public consultation incorporating a series of nine consultation events across Scotland during November and December where a broad range of stakeholders engaged directly with specialist teams from the agency. In total, 275 people and 31 stakeholder groups attended. SEPA will shortly announce the agency's next steps in its regulatory regime.

SEPA's technical analysis is open to the public and free to download for review, directly from [Science of the Total Environment](#).

ENDS

Notes to editor

**Biomathematics and Statistics Scotland (BioSS)** are recognised internationally for their work at the interface between the mathematically-based sciences and a wide span of applied sciences covering agriculture and the rural economy, the environment, food and health. Its principal funder is the Scottish Government's Rural and Environment Science and Analytical Services Division (RESAS) and they are one of the Scottish Environment, Food and Agriculture Research Institutes (SEFARI), working collectively to deliver a portfolio of strategic research and translational activities commissioned by RESAS.

[www.bioss.ac.uk](http://www.bioss.ac.uk)