5. Will the public see less sewage-related debris (SRD) in the river, along its banks and beaches?

One of the aims of the range of strategies, policies, plans and work outlined in this document is to help reduce the likelihood of SR in rivers.

In addition to this our customers can also play a huge part in preventing debris in rivers and on beaches. Our new national campaign 'Nature Calls' urges customers not to flush wet wipes (and other items) down the toilet and we are calling for a complete ban on the sale of wet wipes containing plastic - Nature Calls - Scottish Water

6. Will remedial clean-up action be undertaken proactively by Scottish Water and Veolia following combined sewage spills?

Scottish Water and our partners (including Veolia) will always attend to clean up Sewage Related Debris (SRD) following an overflow operation. If any members of the public see SRD then they can report directly to Scottish Water via our 24/7 helpline – 0800 0778778 or our online portal.

Alternatively SEPA advise that any pollution can be reported to their hotline **0800 80 70 60** or through our online tool (Report Environmental Events to SEPA). SEPA aims to respond within 24 hours.

7. Will the CSO / SSO discharge data for the Almond be shared publicly in real-time? When will this be available to the public? Is there anything stopping this being done currently with spills from the WwTWs?

As outlined about, Scottish Water's urban waters routemap will give us improved data from monitors installed at CSOs, some of which will be on the River Almond. We aim to have information from SW monitors available in real time by 2024.
We are still looking at how this information will be shared and communicated

8. Can the public safely swim in the River Almond? If so, when is it safe for the public to swim in the river?

Answer provided by Public Health Scotland
Public Health Scotland has not produced public health guidance relating to wild swimming. However, we are aware of the work that SEPA carries out in relation to designated bathing waters in Scotland, as well as guidance produced by the Environment Agency and Public Health England (now UK Health Security Agency) relating to open water swimming.

The UK HSA advice is also applicable to open water swimming in Scotland. As PHS remobilises its services following the COVID-19 response, we will consider priority work areas relating to Environmental Public Health, and this topic will be included within these considerations alongside other priority areas. Queries regarding specific bathing water applications or incidents are managed at local level by either the local authority or the local Health Protection Team.

9. Could Scottish Water and Veolia share the number of sewage spills occurring from their wastewater treatment works along the Almond on a monthly basis?

In terms of other reporting data, our planned investment in monitors will help provide more real time information in the future which isn't available at the moment. Veolia do provide reports to SEPA on performance of assets and we could provide the annual report, but this is retrospective.

We will have this available in real time by December 2024

10. Other than adhering to the 3Ps, can the public help to reduce the amount of CSOs being discharged into the River Almond?

Better uptake of the 3Ps (Nature Calls) amongst the public would be a huge step forward as many blockages and hence spills are caused by inappropriately flushed items. Consumer pressure on manufacturers and retailers who produce personal hygiene products would also lead to truly flushable products and hence less spills.

Widespread uptake of water butts and a reduction in impermeable surfaces (household driveways) at domestic and commercial properties will slow down rainfall run off and attenuate flows in the sewer resulting in less sewer spills.

11. Could SEPA please provide the results of their water quality monitoring data from last summer which covered the Bathing Waters application?

This data has been provided to the group, we are happy to make it available to anyone who hasn't already received a copy. For clarity, the panel did not consider water quality results in coming to their recommendation on the Almond.

12. Would Scottish Water consider incentivising the public to manage rainwater within their properties curtilage by providing a water bill reduction for those who manage all, if not a proportion of surface water runoff?

Scottish Water have been engaging with customers through a range of events and communications in 2022 about 'Saving Water' and being more water efficient. This includes looking at what customers can do around the home and garden to save water with the added benefit of surface water management. More info here – Water Saving Advice - Scottish Water
In terms of how customers are billed, this is a matter for Scottish Government water charging policy.

13. As identified West Lothian Council's Surface Water Management Plan, could funds for the Lighthouse project be used to provide water butts or to undertake retrofit SuDS projects the East Calder WwTW drainage catchment?

Scottish Water and our partners will look at a range of options, solutions and interventions for managing surface water in the East Calder catchment.

14. Is West Lothian Council being sufficiently funded to undertake the proposed work in their Surface Water Management Plan?

Directed at WLC

15. How effective has the Shieldhall Strategic Tunnel been in addressing flood risk and improving water quality of the Clyde? How much have CSO spills reduced by pre-and post construction and operation? Has water quality improved?

The £100 million Shieldhall Tunnel has undoubtedly reduced the impacts of flooding in areas of the southside of Glasgow as it was designed to do. It eliminated a number of very polluting CSOs from small tributaries of the River Clyde by providing large volumes of storage and attenuation for storm sewage flows. While the benefits to water quality from the Tunnel will not be evident in the River Clyde itself, the small tributaries will have improved now many of the CSO discharges have been removed. We do not hold the information on pre- and post-construction spill volume reduction.

16. How is Scottish Water proactively helping to deliver The Scottish Government's Water-resilisient places - surface water management and blue-green infrastructure: policy framework?

Scottish Water have supported Scottish Government throughout the development of the recommendations set out in the Water Resilient Places policy framework and are playing a leading role in setting the direction of the national advisory group for surface water management, along with local authority, SEPA and Scottish Government representatives.

The WRP framework recognised that the activities of many parties are needed, due to the varying responsibilities for managing surface water, this collaboration across organisations and residents will be essential to ensure that everybody plays their role to effectively manage surface water risks, whilst delivering great blue-green places to live that are adaptable to the future.

Scottish Water are working with local authorities and SEPA to try and develop a replicable framework for how the WRP recommendations can be delivered in practice across Scotland from both a planning and implementation perspective. This includes a number of exemplar projects underway to plan at city, neighbourhood and street scale, and use these to inform how all partners embed what we learn into planning, regeneration and infrastructure projects in the future.

17. Is the UK Government and The Scottish Government sufficiently funding Scottish Water, SEPA and local authorities to reduce the impacts of surface water flooding AND improve water quality of receiving waters, particularly given the impacts of climate change?

- Prioritising funding to do the right things first.
- Increased Capital Investment spending from £650m per year to £1Bn to help Scottish Water invest in aging infrastructure, meet the challenges of climate change and protect the environment.

No comment from SEPA

18. Could SEPA please provide evidence of their recent update at the stakeholder group meeting and confirm their plans for licenses and the River Almond website?

The River Almond Compliance Audit is underway, with the team gathering information and undertaking initial investigations. All WWTWs will have audit inspections this year and we will use that information to evaluate the efficacy of the existing permits and review or update permits where issues are identified. Further information on the work will be available later in the year.

SEPA will be reviewing the Scottish Water licences during the third RBMP cycle to reflect the improvements required at WWTWs and CSOs to deliver the water quality objectives.

The River Almond website hub is still in progress but has been delayed due to the development of our new beta website, which the hub will form part of. Further updates will be provided as soon as it is possible to do so. In the interim, Scottish Water will provide a platform where River Almond information can be shared on their website.

19. Could Veolia please provide evidence of their recent update at the stakeholder group meeting including the carbon costings?

- This has already been shared in April meeting 2022

From:	[redacted]
To:	Cabinet Secretary for Net Zero, Energy and Transport; Minister for Environment and Land Reform
Cc:	Rathjen J (Jon); Grisewood A (Aidan); Berge K (Kersti); [redacted] McFarlane J (John) (Special Adviser); Communications Net Zero & Rural Affairs; DG Economy; [redacted]
Subject:	Submission: Scottish Water - Improving Urban Water Routemap
Date:	14 December 2021 14:28:42
Attachments:	Annex A - SW Urban Water Route Map - FINAL -EMBARGOED UNTIL 22 DEC 2021.pdf Improving Urban Waters Routemap - Submission - December 2021.docx

Cabinet Secretary
Minister

Please find enclosed a routine submission outlining the Improving Urban Waters Routemap agreed between Scottish Water and SEPA on action Scottish Water is taking to support delivery of the 3rd River Basin Management Plan, including on the issue of sewage spills that has been specifically highlighted by the Minister

As it is planned to publish it to coincide with the Minister's statement to Parliament on 22nd December 2021, the attached Routemap document is attached as **Annex A** under embargo until the 22nd December

[redacted]

[redacted] | Water Policy and DECC Operations Division | Scottish Government | 3F South | Victoria Quay | Edinburgh | EH6 6QQ | [redacted]

[redacted]

I am currently working from home, my normal working hours are 08:00-17:00

From – [redacted]
Water Industry
14 December 2021

Cabinet Secretary for Net Zero, Energy and Transport

Minister for Environment, Biodiversity and Land Reform

SCOTTISH WATER: IMPROVING URBAN WATERS ROUTEMAP

1. To inform you that Scottish Water's Improving Urban Waters Routemap has been approved by SEPA and will be published in advance of the Minister's statement to Parliament on 'Protecting and Improving the Water Environment' scheduled for December 22nd. The Routemap sets out how Scottish Water intends to meet SEPA's expectations in relation to the third River Basin Management Plan (RBMP), and includes specific action to tackle the issue of sewage spills that has been highlighted by the Minister for Environment for more, visible action.

Priority

2. Routine

Background

3. Scottish Water has worked together with SEPA to implement requirements of environmental regulation and have delivered significant improvement to the sewage collection and treatment system in Scotland over the last 20 years. Building on the improvements in municipal sewage collection and treatment delivered under the Urban Wastewater Treatment Regulations (UWWTR) 1994, the SEPA-led River Basin Management Plans (RBMP) have, with the support of Scottish Water and other stakeholders, achieved much since the first plan was published in 2009. Good water quality has increased from 81% in 2008 to 87% in 2019, with a forward target of 92% by 2027 being set in the third RBMP, due to be published on December 22nd 2021. Investment by Scottish Water in enhanced sewage treatment and in improvements to Combined Sewer Overflows have helped support this increase in Good water quality.

4. Scottish water and SEPA worked closely together during the 2015-21 regulatory period for the water industry to develop and deliver an extensive study programme that identified over 650 CSOs that need improvement to meet current regulatory policy. However, it is recognised that conventional solutions to delivering these improvements would be carbon intensive, expensive – with an estimated likely cost around £1bn, as well as being misaligned with SEPA's sector plan aim of encouraging "nature-based, blue-green solutions."

5. In light of media articles on the subject last summer, Ms McAllan asked officials what further action could be taken on sewage spills. SEPA and Scottish Water have since been working to bring forward proposals for a phased programme of work addressing the issues of most pressing concern to support the delivery of the third River Basin Management Plan including addressing the issue of spills from Combined Sewer Overflows (CSOs). Following discussions, Scottish Water have agreed with

SEPA the Improving Urban Waters Routemap attached at **Annex A** and are now establishing the internal structures and processes required to support delivery of the route map including governance and reporting arrangements; further advice on this aspect will be brought forward in due course.

6. The Route Map sets out how Scottish Water proposes to fulfil SEPA's expectations and deliver improved water quality (to support Scotland's RBMP objectives, increased monitoring and reporting to cover all CSOs that discharge into the highest priority waters, significantly reduced sewer related debris in the environment, and reduced spills from the sewer network. The strategic approach that has been taken, to focus monitoring on key locations, will ensure capital expenditure is prioritised to support work on upgrading CSOs while still enabling the wider deployment of monitors where appropriate across the system to create an intelligent network to improve the management of flows and provide better, more timely, information to customers, one of the key consumer requests to emerge post lockdown.

7. The Routemap acknowledges many other organisations will be needed to contribute to its achievement, and so also seeks SEPA's support in removing surface water from the sewer network, as this is essential for reducing spills from the network and for protecting it against future demands; achieving this will require considerable partnership working with local authorities and financing. The Routemap also seeks support for Scottish Water's activities to limit wipes and other items being inappropriately flushed, as this is key to reducing the amount of litter that enters the sewer network, causing blockages and ending up in the water environment.

Improving Urban Waters Routemap - key commitments

8. By 2024, Scottish Water will:

- **Develop solutions** for the remaining (24) CSOs confirmed as impacting water quality and identified as measures in the third RBMP to allow delivery of improvements by December 2027.

- **Install monitoring** on network and treatment works CSOs discharging to the highest priority waters (including all designated shellfish and bathing waters), representing approximately 1,000 CSOs:

    - These monitors will confirm spill frequency and duration and will allow Scottish Water to make comparisons with predicted spill frequencies (from models). This will enable Scottish Water to confirm whether spill frequency represents an environmental risk.

    - The data from monitors can be used to improve operational intelligence, driving the need for further investigations on spill impact and for prioritising the need for interventions in the network and at Waste Water Treatment Works and to inform the scope of improvements required.

- Data can also be used to notify water users and stakeholders that spills have occurred and, over time, provide alerts of spills in near real time.

- **Deliver intelligent wastewater networks in 3 catchments** (East Calder – *including on the River Almond* - Erskine and Lossiemouth) to expand their intelligence on network behaviour during dry weather and during rainfall and develop a plan for further roll-out of this approach and alignment with monitoring aspirations.

- **Support** the Scottish Government to develop proposals to ban single-use plastic products, such as wet-wipes, and to improve labelling to promote correct disposal.

- **Develop and roll out a campaign** to educate customers to reduce instances of flushing items which impact the sewerage system (*Note: We understand Scottish Water will shortly approach Ministers with an offer to explain planned campaign activity*)

- **Develop solutions** for those CSOs that are already confirmed as being high priority having significant SRD impacts on rivers (85 locations).

- **Agree delivery timetables** for the 85 high priority CSOs (currently estimated to cost around £100m - £130m) and promote for approval. Subject to approval, it is planned to deliver these CSO improvements by December 2027.

- **Continue to identify solutions** to reduce surface water volumes entering the sewer network by working in partnership with SEPA, local authorities, landowners and developers.

- **Identify** specific catchment-wide surface water management opportunities to help resolve the most significant spill impacts and to offset any future increases from climate change.

9. <u>Beyond 2024</u>, Scottish Water will:

- **Deliver** water quality improvements to address 24 CSO water quality pressures identified within RBMP3 by 2027.

- **Review**, with SEPA, emerging information on water quality improvement needs and develop, prioritise and deliver solutions as appropriate.

- **Roll out the intelligent network approach** to cover additional catchments as appropriate.

- **Develop solutions** for all medium priority CSOs (around 150 locations) and agree delivery timetables for these (currently estimated to cost around £150m - £200m). Scottish Water will promote these as a priority investment the period after 2027 and, subject to these being approved, plan to deliver improvements to these CSOs by December 2031.

Finance

9. Current estimates suggest that delivering the route map will need between £150m – £200m of additional investment to be prioritised and delivered before 2027 and a further £150m – £200m between 2027 and 2031. Scottish Water's current investment plan does not have the financial capacity to deliver the improvements identified in the Routemap by 2027 so Scottish Water will prepare the case for the required investment to be prioritised in the current 2021–27 regulatory period. This will require Scottish Water to work closely with SEPA and other stakeholders to re-phase and reprioritise current plans to make space for the new investment. Scottish Water will also work with water sector stakeholders to promote the need for the investment required after 2027 into Ministerial objectives the period after 2027, although these are unlikely to be set until 2026.

Summary and Conclusion

10. In bringing forward this Routemap Scottish Water have recognised that the pandemic has seen a shift in public appreciation of their local water environment including a significant increase in outdoor swimming, that climate change and customer disposal of inappropriately flushed items will continue to put increased pressure on the sewer network unless a different approach is taken, and the current policy and regulatory framework under was not designed to deal with these issues meaning new approaches are required.

11. The Routemap sets out Scottish Water's contribution to the third River Basin Management Plan (RBMP). It outlines Scottish Water's commitment to further improving urban waters and builds on significant progress made to date through Scottish Water's and SEPA's joint approach of prioritising improvements to those areas causing the greatest impact on the water environment. The route map will be continually reviewed and updated as understanding grows of which approaches and priorities should be further developed. An Annual Report will be prepared and sent to Ministers.

12. You are invited to

- note the proposed actions and outcomes set out in Scottish Water's Improving Urban Waters Routemap to contribute to RBMP3, and help address the issues of sewer spills highlighted by the Minister, and

- note that the Routemap will be kept under review and an Annual Report will be submitted to Ministers in due course.

[redacted]
Water Industry
14 December 2021

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness

DG Economy
Kersti Berge
Jon Rathjen
[redacted]
Aidan Grisewood
[redacted]
[redacted]
Comms NetZet
John McFarlane

From: [redacted]
To: Minister for Environment and Land Reform
Cc: Director of Environment & Forestry; Deputy Director Environmental Quality and Resilience; [redacted]
Subject: Briefing - 7 December meeting between Minister for Environment and Land Reform and Angela Constance MSP
Date: 06 December 2022 14:47:26
Attachments: Briefing - 7 December meeting between Minister for Environment and Land Reform and Angela Constance MSP.docx
River Almond Improvement Group - meeting minutes 01 July 22.pdf
River Almond Questions and answers - August 2022.pdf
Response-202200321780.pdf
MiCase Ref 202200321780 Background note- Bathing Waters designation process.docx

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Hi [redacted]

Please find attached a briefing for tomorrow's meeting between Ms McAllan, Angela Constance MSP and the River Almond Action Group along with other relevant documents.

I will take a note of the meeting.

Regards

[redacted]

[redacted]
(I am currently working from home and can be contacted via email only)

Water Environment Team
Environmental Quality & Resilience Division
Environment & Forestry Directorate
Tel: [redacted]

MEETING BETWEEN THE MINISTER FOR ENVIRONMENT AND LAND REFORM AND ANGELA CONSTANCE MSP AND REPRESENTATIVES OF THE RIVER ALMOND ACTION GROUP REGARDING RIVER ALMOND WATER QUALITY AND SEWAGE SPILLS	
TIMING	14:15 to 15:00, Wednesday 7 December 2022 Microsoft Teams meeting Click here to join the meeting
ATTENDEES	Official(s) in attendance: John McFarlane, Special Advisor [redacted] Water Environment Team [redacted]Water Environment [redacted] [redacted]Water Industry Policy
AGENDA	**1. River Bathing** Q to Minister: What are your aspirations for Scotland's waters - 'Hydro Nation' -should we be able to use our rivers recreationally? **2. The problem (as we see it)** Q to Minister: Do you acknowledge the three dimensions of the problem (sewage itself, sewage related debris e.g. plastics, lack of accountability) and what could you do along each of this axis to improve this? **3. Commitment to end sewage pollution** Q to Minister: Will the Minister drive the conversation about this and make a commitment to end sewage pollution of Scottish rivers and beaches? Yes, it might take 30 years to achieve but the commitment to get there is already overdue. If not now, when? **4. Specific investment for the River Almond.** Q to Minister: How can the public be assured that sewage pollution won't become worse with new housing developments? Scottish Water is currently undertaking planned investment work. How much would it cost Scottish Water to disinfect the sewage overflows from East Calder WwTW to help make the river safer to swim in? Could this be included in the planned investments?
MEETING OBJECTIVE(S) AND OUTCOME(S)	1. To discuss Angela Constance's concerns and clarify the Scottish Governments position in relation to the water quality protection and improvement work undertaken by SEPA and Scottish Water.

General background

River Almond Water Quality Improvement Group
Since June 2021, Angela Constance has chaired the River Almond Water Quality Improvement Group.

Membership of the group is drawn from: Friends of Almondell and Calderwood Country Park; River Almond Action Group (RAAG); Forth Rivers Trust (FRT); West Lothian Council; SEPA; Scottish Water; Veolia; East Livingston and East Calder Ward Councillors.

Along with Scottish Water and SEPA, we presented the detailed aims and objectives of the River Basin Management Plans and Improving Urban Waters Route Map in relation to improving water quality at the River Almond Water Quality Improvement Group in January 2022. Following the presentation RAAG's response was that the Plans were not ambitious enough. RAAG call for no sewage spills from storm overflows in Scotland and that rivers should be safe for people to swim in.

River Almond Action Group (RAAG) (River Almond Action Group)
RAAG is a community group that was formed in early 2021 by the Forth Rivers Trust. The aim of this group is to highlight the current issue of water quality in the River Almond and their primary mission is to monitor the volumes of litter and sewage being released into the river throughout its course. A key focus of the group has been on East Calder Wastewater Treatment Works, which is immediately upstream of the location of the River Almond Bathing Waters application.

RAAG also supported the bathing waters application for the River Almond. As it states on their website: 'One of the main motivations for the bathing waters application is to hold water authorities to a higher standard of water quality control and monitoring for the River Almond'.

The Scottish Government has undertaken general correspondence with RAAG in relation to their concerns regarding River Almond water quality, sewage spills and the bathing waters application on behalf of the Minister and Cabinet Secretary. Scottish Government responses have set out its position regarding the policy, legislation and planned investment around the issues raised.

Forth River Trust (FRT) (Forth Rivers Trust)
The Forth Rivers Trust aims to engage people with rivers and wildlife that live within the Forth catchment whilst conserving rivers and their important species for future generations.

SEPA has briefed FRT on the detailed planned water quality improvement measures for the River Almond since 2020. This includes the improvements to the seven Scottish Water Wastewater Treatment Works and six combined sewer overflows (CSOs) to address water quality downgrades by 2027.

The Forth Rivers Trust submitted the River Almond Bathing Waters application in 2021. Again on the FRT website it states, 'One of the main motivations for the bathing waters application is to hold water authorities to a higher standard of water quality control and monitoring for the River Almond' (Forth Rivers Trust).

[redacted]

1. River Bathing
Q to Minister: What are your aspirations for Scotland's waters - 'Hydro Nation' - should we be able to use our rivers recreationally?

22 Sept Environmental Rights Centre Scotland letter on behalf of the River Almond Action Group to the Minister challenging the legality of the Bathing Waters designation process in Scotland.
4 Sept The Ferret and National reported 49 Scottish beaches polluted by sewage. This year 49 of the 87 designated bathing waters around the country have recorded levels of faecal bacteria that could endanger the health of swimmers, surfers and paddlers. The data quoted in the report has been sense checked with SEPA as accurate.
25 Aug Daily Mail (Scotland) reported sewage spillages into rivers and burns hit 10-year high, 282 were recorded 2021/22 up 45% from 194 in 2020/21. The data quoted in the report was sourced from Scottish Water's most recent 2021/22 annual report.

The River Basin Management Planning (RBMP) process, undertaken by SEPA, is a 6 year cycle of monitoring, assessing, classifying, and setting objectives aiming to protect and improve the water environment. Monitoring of the water environment under RBMP does not include bacteriological monitoring (it is not relevant for the protection of aquatic wildlife) unless it is associated human health at protected areas such as Bathing Waters.

Within the Plans, designated Bathing Waters aim to reduce the risks to human health, where a large number of people bathe, by protecting and improving bathing water quality. There are currently 87 designated Bathing Waters in Scotland with 3 being inland lochs.

Bacteriological monitoring associated with human health impacts is only primarily carried out at designated Bathing Waters where a large number of people bathe. A proportionate approach is taken to designating bathing waters as minimising the risks to bathers health in a wild dynamic environment can require tens of millions of pounds of investment to the public sewer infrastructure at a bathing water.

Top lines
- A clean and healthy water environment is vital for our nation's health and well-being, our biodiversity, and a sustainable economy.
- 66% of our water environment is already in overall good condition, whereas, Environment Agency figures for England are only 16%.
- The River Basin Management Plans published on 22 December 2021 are our most ambitious Plans yet, and set out targeted measures to further improve Scotland's water environment to 81% in good condition by 2027.
- The River Basin Management Plans are complemented by Scottish Water's 'Improving Urban Waters Route Map', which describes how Scottish Water will take further action to reduce wastewater pollution and sewage litter over the coming decade.
- This route map is backed by investment of half a billion pounds.
- 98% of bathing waters (87) passed bathing water quality standards this year with more rated as excellent than ever before (44%).
- It is important to remember that a small number of 'poor' monitoring results at each designated Bathing Water does not mean that water quality is continually

poor on all days at Scotland's Bathing Waters. SEPA has analysed 1,297 water quality samples from 87 designated Bathing Waters this season and 93% were found to be at safe levels.
- Whilst, there will be many other undesignated beaches, lochs and rivers across Scotland that are fit for bathing it remains the personal responsibility of every individual to assess the risks before entering open water, whether at a designated bathing water or otherwise.

Water Quality
- 87% of Scotland's entire water environment is assessed by SEPA as having a 'high' or 'good' classification for water quality – up from 82% six years ago.
- This upgrade in water quality reflects improvements made through Scottish Water's investment programme, and work by a range of stakeholders to improve rural land management practices to reduce diffuse pollution.
- Since 2010, Scottish Water has worked with SEPA to upgrade 104 wastewater treatment works and 279 storm overflows by investing £686 million.
- Scotland's River Basin Management Plans include a wide range of measures, which aim to ensure that 92% of Scotland's water environment has a classification of 'good' or better water quality by 2027.

Bathing Waters
- Scottish Ministers designate Bathing Waters where a large number of people bath as set out in the Bathing Water (Scotland) Regulations 2008 and the Bathing Waters Directive.
- The bathing water user limit for determining a large numbers of bathers was chosen by Scottish Ministers following consideration of comprehensive user surveys of bathing locations across Scotland and a formal public consultation.
- Bathing Water classification in Scotland is undertaken by SEPA following strict EU bacteriological standards. These were reviewed by the World Health Organisation in 2018, which concluded they were fit for purpose.
- Bathing Waters classification gives an overall indication of expected water quality, but there can be short term fluctuations in water quality driven by heavy rainfall.
- SEPA's monitoring of Bathing Waters shows water quality can be impacted by a range of bacterial sources and not just sewage spills, including agricultural land runoff, urban runoff, dog and seagull faeces.

Wild Swimming
- Rivers and other open water locations that are not designated as bathing waters are managed for the purpose of protecting fish and wildlife.
- Water in these locations may contain levels of pathogens which are harmless to wildlife, but would not meet designated bathing waters standards.
- The UK Health Security Agency advises that anyone can become unwell from swimming in any open water, as there will always be micro-organisms present.
- Public Health Scotland (PHS) has not produced public health guidance relating to wild swimming. As PHS remobilises its services following the COVID-19 response, it will consider priority work areas relating to Environmental Public Health, and this topic will be included within these considerations alongside other priority areas.
- Public health queries regarding specific bathing waters or incidents are managed at local level by either the local authority or the local Health Protection Team.

2. The problem (as we see it)
Q to Minister: Do you acknowledge the three dimensions of the problem (sewage itself, sewage related debris e.g. plastics, lack of accountability) and what could you do along each of this axis to improve this?

3 Nov PQ- S6O-01493 Alex Cole-Hamilton: To ask the Scottish Government whether it will provide an update on what action it is taking to address the discharge of sewage into rivers, lochs and waterways.
26 Oct S6M-06148: Alex Cole-Hamilton: Sewage and Scotland's Waters motion that the Parliament notes the view that the natural environment deserves the highest possible protection

Through the River Basin Management Planning (RBMP) process SEPA monitors and assesses the water environment on an annual basis against a wide range of standards set by the Scottish Government aiming to protect and improve it. These water quality standards were determined by groups of experts in their field at an EU or UK level and received public consultation before implementation.

The RBMP identifies a range of impacts on the water quality of rivers, lochs and estuaries including rural diffuse pollution, public waste water discharges, acid rain, wastewater discharges from industry, aquaculture, and distilleries.

Emerging contaminants of concern such as microplastics, pharmaceuticals, antimicrobial resistance and other substances can come from a range of pathways in to the water environment with the sewer infrastructure being one such pathway that is being assessed through research.

Top Lines
- We take very seriously the issue of sewage spills, and in Parliament last December I announced comprehensive plans to reduce sewage spills over the coming decade.
- SEPA is required by law to identify unsatisfactory CSOs, primarily for water quality or sewage related debris impacts, in order to reduce those impacts on the water environment.
- Scottish Water carried out a comprehensive Scotland-wide environmental study programme to assess the impacts of its assets on water quality, which was reviewed by SEPA, during the 2015 to 2021 investment period costing around £40m.
- This comprehensive Scottish Water environmental study programme contributed significantly to 654 out of 3,614 Combined Sewer Overflows being identified as unsatisfactory by SEPA.
- Following further studies, 24 high priority unsatisfactory Combined Sewer Overflows (CSOs) identified by SEPA as impacting on water quality are included as improvement measures in the River Basin Management Plans.
- Scottish Water is also developing solutions for 39 Wastewater Treatment Works which are included as improvement measures in the Plans, one works having since been removed..
- SEPA regularly monitors the water environment to ensure it is not impacted by sewage spills.
- In 2019, SEPA took around 19,000 monitoring samples across Scotland to safeguard the water quality of our rivers, lochs and coastal areas.
- SEPA licences and regulates 345 sewer networks operated by Scottish Water carrying out inspections on a rolling basis.

- In 2019 there were 7 out of 100 found not to be compliant with their licence conditions and SEPA took action to ensure compliance was achieved.

Microplastics

- Marine litter is a global challenge, affecting the world's oceans, seas, coastlines and shores.
- Microplastic pollution results from the breakdown of larger plastic items as well as direct sources. Our refreshed Marine Litter Strategy, published in September, has an action plan to reduce sources of large litter such as fishing gear, and micro litter such as plastic pellets.
- This builds on previous legislation which banned microbeads in rinse-off personal care products, plastic-stemmed cotton buds and many single-use plastic items often found as beach litter. Scotland was the first in the UK to ban plastic-stemmed cotton buds, and joined other UK administrations to ban microbeads at the same time. We have moved to ban other single use plastics and are developing the UK's first deposit return scheme.
- We will also continue to support developments in microplastic monitoring, improving scientists' understanding of the microplastic pollution problem, and enabling more effective solutions that can be taken across the world to protect our environment.
- The updated Strategy also includes actions which are focused on reducing the volume of plastic entering our rivers and ending up in our seas. We have supported Keep Scotland Beautiful's Upstream Battle project since its inception in 2018. This project engages local communities and businesses to prevent and remove litter from rivers, thereby reducing this source of marine pollution.
- Since the introduction of the Internal Markets Act, we are unable to introduce legislation alone on this issue, and it is acknowledged that UK-wide action would be required to make any legislation effective and enforceable.
- We encourage the UK Government and other administrations to work with us to bring forward a ban on wet wipes containing plastic, and to ensure that products on the market meet the Fine to Flush standard.
- Scottish Water's new national campaign 'Nature Calls' urges customers not to flush wet wipes (and other items) down the toilet.

3. Commitment to end sewage pollution
Q to Minister: Will the Minister drive the conversation about this and make a commitment to end sewage pollution of Scottish rivers and beaches? Yes, it might take 30 years to achieve but the commitment to get there is already overdue. If not now, when?

Scotland has 50,000km of sewer network and a large proportion of it is combined i.e. it receives rainwater runoff and wastewater in one pipe. There are around 3,614 combined sewer overflows that temporarily spill a mixture of rainwater and sewage effluent into the water environment during heavy rainfall ensuring sewers don't back up and flood homes, streets and sewage works.

These CSOs are regulated by SEPA to protect the environment. At bathing waters CSO sewage spill frequency is reduced to minimise their impact on bathing water quality. On average the investment required to reduce sewage spills from one CSO is £2m to £3m.

SEPA's River Basin Management Planning (RBMP) water quality classification indicates that the River Almond is at moderate status. This is due to the level of nutrients, e.g. phosphorus, detected by SEPA in the river. The most likely source of these nutrients is effluent from Scottish Water's wastewater discharges.

Top Lines
- As I announced to Parliament in December last year, Scottish Water's Improving Urban Waters Route Map sets out a programme of continued action to reduce wastewater pollution and sewage litter over the coming decade by investing half a billion pounds. Scottish Water will publish an update on its website by 21 December 2022.
- Combined Sewer Overflows (CSOs) are an integral part of Scotland's sewer networks, ensuring sewers don't back up and flood homes, streets and sewage works during periods of heavy rainfall.
- Scottish Water has estimated that in order to eliminate CSO intermittent discharges it would need to invest £13 billion to replace the combined sewer infrastructure across Scotland.
- Scottish Water has reduced environmental pollution incidents by 60% over the last decade from 800 each year to fewer than 300, in spite of increasingly challenging weather patterns.
- Following recent studies there are now 24 high priority unsatisfactory Combined Sewer Overflows (CSOs) included as improvement measures in the third River Basin Management Plan and Scottish Water is also developing solutions for 39 Wastewater Treatment Works which are also included as improvement measures, one works having since been removed.

Scottish Water's Improving Urban Waters Route Map progress
- Scottish Water is in the process of developing solutions for 102 (of 104 identified) high priority unsatisfactory Combined Sewer Overflows (CSOs) due to their impact on water quality or sewage related debris.
- It is continuing to assess the planning work required for the remaining 2.
- Scottish Water has identified the first programme of around 250 Combined Sewer Overflow (CSO) monitors that will be delivered to meet its commitment to invest

up to £70m to install 1,000 new monitors, including those at bathing waters, before 2024.
- Work is underway to identify the next priorities based upon predicted spill frequency, potential impacts and receiving water amenity with further programmes expected by December 2024.

Planned River Almond water quality improvements

- Plans have been agreed between SEPA and Scottish Water for upgrades to seven Scottish Water Wastewater Treatment Works (WwTWs) and six CSOs on the River Almond with the aim of improving water quality to 'good' status by 2027.
- Scottish Water is also progressing on two identified high priority sewer overflows in the River Almond catchment requiring screens to address significant litter issues.
- All this work is on track and Scottish Water estimates that it will invest up to £50m to deliver improvements in the River Almond.
- Scottish Water has installed sensors in the East Calder sewer system, as well as event data loggers to monitor spills at key sewer overflows in the Almond as part of its intelligent sewer network trial. This will help identify any issues with sewer flows and determine future investment requirements in the sewer networks.
- SEPA's Almond Compliance Audit project for Scottish Water assets is underway, with its Environmental Performance team currently undertaking preparatory work prior to onsite inspections.
- The River Almond is the focus for one of two pilot 'Lighthouse' projects in Scotland. This project aims deliver and showcase water environment improvements including spill reductions, surface water removal and place-making opportunities with a focus on partnership working with communities.
- The Almond catchment is a planned SEPA priority catchment project for 2023, involving 133 initial farm inspections aiming to reduce rural diffuse pollution.

4. Specific investment for the River Almond.
Q to Minister: How can the public be assured that sewage pollution won't become worse with new housing developments? Scottish Water is currently undertaking planned investment work. How much would it cost Scottish Water to disinfect the sewage overflows from East Calder WwTW to help make the river safer to swim in? Could this be included in the planned investments?

New property developments have been required to separate rainwater and wastewater, where practical, for decades. Rainwater has been required to be managed sustainably aboveground using sustainable urban drainage system, which treat and attenuate the runoff water.

Top Lines

- Scottish Water anticipates that the impact from housing development in the River Almond catchment can be mitigated to ensure that there is no detriment in current performance levels of its Wastewater Treatment Works.
- Any connections from new housing will include only waste water (foul) connections with surface water (rainfall runoff) being managed via Sustainable Urban Drainage Systems.
- Housing developers, working with and supported by Scottish Water, are required to ensure that the sewerage system is reinforced to deal with increases in foul flow.
- Scottish Water has not undertaken a cost analysis in relation to “making the River Almond safe to swim in”; this is because it is not designated as a bathing water.
- Scottish Water’s investment programme for the 2021-27 period is focussed on meeting legally binding standards in relation to the public water and sewerage infrastructure.
- Ministers’ objectives require Scottish Water to:
    - improve the current level of compliance with its environmental licences by preparing and implementing investment plans that address the risks of impacts on the environment from its assets.
    - prepare and implement delivery plans throughout the 2021-27 period which set out how improvements to its water and sewerage infrastructure are expected to contribute effectively to the RBMP objectives.
- Scottish Water estimates that it will invest up to £50m to deliver the current planned improvements in the River Almond.

Blue/ Green infrastructure

- Scottish Government recognises the multiple benefits that blue and green infrastructure (BGI) provides, including combined sewer overflow spill reduction, and published the Water Resilient Places Policy Framework in February 2021.
- Scottish Water, SEPA and the local authorities support the framework and we will continue to see increased use of BGI in future as this becomes the primary infrastructure for managing surface water in new developments.
- Under the Edinburgh Blue-Green City Partnership the Edinburgh and Lothian Strategic Drainage Partnership is being used as a platform for enabling a radically different approach to urban water planning and management.

From: [redacted]
To:
Subject: Briefing - Scottish Water re Nature Calls Campaign - 8 March 2022
Date: 03 August 2022 11:42:00
Attachments: Briefing - Meeting with Scottish Water - Nature Calls - 8 March 2022.docx

---

From: [redacted]@gov.scot>
Sent: 01 March 2022 17:06
To: Cabinet Secretary for Net Zero, Energy and Transport <CabSecNetZET@gov.scot>; Minister for Environment and Land Reform <MinisterELR@gov.scot>; Minister for Green Skills, Circular Economy and Biodiversity <MinisterGSCEB@gov.scot>
Cc: McFarlane J (John) (Special Adviser) <John.McFarlane@gov.scot>; Higgins K (Kate) <Kate.Higgins@gov.scot>; Huyton H (Harry) <Harry.Huyton@gov.scot>; Corbett GN (Gavin) <Gavin.Corbett@gov.scot>; [redacted]@gov.scot>; Rathjen J (Jon) <Jon.Rathjen@gov.scot>; Berge K (Kersti) <Kersti.Berge@gov.scot>; [redacted]@gov.scot>; Communications Net Zero & Rural Affairs <CommunicationsNetZero&RuralAffairs@gov.scot>
Subject: Joint meeting 8 March 16:15 with Scottish Water re Nature Calls Campaign

Cabinet Secretary
Ministers

Please find briefing attached ahead of next week's Teams call with Scottish Water to hear more about the recently launched Nature Calls campaign

[redacted] | Water Policy and DECC Operations Division | Scottish Government | 3F South | Victoria Quay | Edinburgh | EH6 6QQ | [redacted]

I am currently working from home, my normal working hours are 08:00-17:00

-----Original Appointment-----
From: Cabinet Secretary for Net Zero, Energy and Transport <CabSecNetZET@gov.scot>
Sent: 07 February 2022 11:27
To: Cabinet Secretary for Net Zero, Energy and Transport; Matheson M (Michael); 'Matheson M (Michael), MSP'; Minister for Green Skills, Circular Economy and Biodiversity; Minister for Environment and Land Reform; McFarlane J (John) (Special Adviser); Higgins K (Kate); Huyton H (Harry); Corbett GN (Gavin); [redacted]; Rathjen J (Jon)
Subject: 16:15 - 17:00 Joint meeting w/t Scottish Water re. Scottish Water's Nature Calls Campaign [MiCase 2022/00273949] (MM/LS/MMc)
When: 08 March 2022 16:15-17:00 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.
Where: MS Teams - Link Below

[redacted] – As A/O for this case, grateful for official support and joint briefing by **cop – Tuesday, 1 March (3pm).** Thanks, [redacted]

PRO FORMA – MINISTERIAL ENGAGEMENTS

MINISTERIAL ENGAGEMENT BRIEFING: MICHAEL MATHESON

Copied to: Mairi McAllan
Lorna Slater

Engagement Title	Scottish Water – Nature Calls Campaign
Timing	**Routine**
Organisation/Venue and full address including postcode	MS Teams Meeting
Date and Time of Engagement	Date(s): 08/03/2022 Time(s): 16:15 – 17:00
Background/Purpose	Purpose/Invitation History: The invitation was offered through correspondence (Ref 202200273949). Scottish Water will provide a brief presentation to highlight the main aims of the current publicity campaign appealing to the public to think about the impact of their actions on the environment in relation to what is being flushed contributing to sewer blockages, related flooding and environmental harm, and to act accordingly. The attached briefing includes some suggested questions to support/stimulate the discussion. [redacted] On Monday 28 February, TESCO announced it would stop selling wet wipes containing plastic from 14 March.
Relevance to Core Script	Scottish Water is a publicly-owned company, accountable to Scottish Ministers. Ministers set its charging principles and investment objectives at the beginning of each 6-year regulatory period (2021-27). The quality of urban waters has been a topic of increasing public interest and Scottish Water recently published its routemap for investment, committing an additional £500m across the 2021-27 regulatory period. SW's campaign builds on the routemap by helping customers to understand how a change in behaviour can contribute towards improved water quality.
Greeting Party and specific meeting point on arrival (if event is at a non SE Building)	[redacted]Corporate Relations [redacted] Communications

Specific entrance for Ministerial Car/parking arrangements		☒ None
Venue contact Number		N/A
Special Dress Requirements		No special requirements
Event Programme		N/A
Questions to aid discussion		**Annex: A**
Nature Calls Background		**Annex B**
Media Handling		Non Media Event
Official Support		Official
		Names: [redacted]

ANNEX A

[redacted]

ANNEX B

Scottish Water – Nature Calls – Background

Scotland is being urged to bin all wipes – and ban wipes containing plastic - in a major new campaign to help protect the environment.

Scottish Water is asking the public to join forces to avoid sewer blockages, flooding, and pollution by consigning wipes to the bin.

Every year Scottish Water deals with around 36,000 blockages at a cost to customers of £7 million - around 80% of the blockages are attributed to wipes. Last year, more than 10,000 tonnes of material was removed from wastewater treatment works. Many thousands of tonnes more ended up blocking sewers, causing flooding, or being flushed into rivers during storms and heavy rain (sewer related debris, or SRD). Research by the Marine Conservation Society shows that wipes are now the most common cause of beach pollution.

There is increasing customer interest in the natural water environment, and the nature calls campaign will aim to tackle the issue of sewer related debris by removing it at the source i.e. change customer behaviour to allow maximum enjoyment of the natural environment.

The Nature Calls campaign is backed by a range of organisations including the Marine Conservation Society, Keep Scotland Beautiful and Zero Waste Scotland.

Improving Urban Waters Routemap

The routemap was published on 22 December 2021; it highlights how Scottish Water intends to contribute towards the aims of the third River Basin Management Plans (RBMP, also published 22 December 2021).

Key Commitments

By 2024, Scottish Water will:

- **Develop solutions** for the remaining (24) CSOs confirmed as impacting water quality and identified as measures in the third RBMP to allow delivery of improvements by December 2027.

- **Install monitoring** on network and treatment works CSOs discharging to the highest priority waters (including all designated shellfish and bathing waters), representing approximately 1,000 CSOs:

    - These monitors will confirm spill frequency and duration and will allow Scottish Water to make comparisons with predicted spill frequencies (from models). This will enable Scottish Water to confirm whether spill frequency represents an environmental risk.

    - The data from monitors can be used to improve operational intelligence, driving the need for further investigations on spill impact and for prioritising

the need for interventions in the network and at Waste Water Treatment Works and to inform the scope of improvements required.

  - Data can also be used to notify water users and stakeholders that spills have occurred and, over time, provide alerts of spills in near real time.

- **Deliver intelligent wastewater networks in 3 catchments** (East Calder – *including on the River Almond* - Erskine and Lossiemouth) to expand their intelligence on network behaviour during dry weather and during rainfall and develop a plan for further roll-out of this approach and alignment with monitoring aspirations.

- **Support** the Scottish Government to develop proposals to ban single-use plastic products, such as wet-wipes, and to improve labelling to promote correct disposal.

- **Develop and roll out a campaign** to educate customers to reduce instances of flushing items which impact the sewerage system (*Note: We understand Scottish Water will shortly approach Ministers with an offer to explain planned campaign activity*)

- **Develop solutions** for those CSOs that are already confirmed as being high priority having significant SRD impacts on rivers (85 locations).

- **Agree delivery timetables** for the 85 high priority CSOs (currently estimated to cost around £100m - £130m) and promote for approval. Subject to approval, it is planned to deliver these CSO improvements by December 2027.

- **Continue to identify solutions** to reduce surface water volumes entering the sewer network by working in partnership with SEPA, local authorities, landowners and developers.

- **Identify** specific catchment-wide surface water management opportunities to help resolve the most significant spill impacts and to offset any future increases from climate change.

Beyond 2024, Scottish Water will:

- **Deliver** water quality improvements to address 24 CSO water quality pressures identified within RBMP3 by 2027.

- **Review**, with SEPA, emerging information on water quality improvement needs and develop, prioritise and deliver solutions as appropriate.

- **Roll out the intelligent network approach** to cover additional catchments as appropriate.

- **Develop solutions** for all medium priority CSOs (around 150 locations) and agree delivery timetables for these (currently estimated to cost around £150m - £200m). Scottish Water will promote these as a priority investment the period after 2027 and, subject to these being approved, plan to deliver improvements to these CSOs by December 2031.

From: [redacted]
To: [redacted]
Cc: [redacted]
Subject: RE: Public health implications of minewater discharge in South Esk
Date: 20 July 2020 14:09:42
Attachments: Fisherrow community briefing note final 06_04_2020.docx

---

[redacted]

SEPA produced a really good briefing for the Community which sets out lots of useful points. You might want to take some more information from this.

The briefing highlights that around £3m has been spent on 4 strands of improvement work, 3 of these led by SW as follows:

- Multiple local misconnections have been fixed.
- Scottish Water have undertaken substantial improvements to Eastfield pumping station, which discharges to the Brunstane Burn close to the beach. During 2019 this pumping station spilt more than it should have done. In 2020 there should be less spills.
- Scottish Water have made improvements to their sewerage network so there should be a reduction in spills from Fillyside combined sewer overflow at Portobello which should also benefit Fisherrow BW

Our bathing water modelling showed that the River Esk has very little impact on the quality of the Bathing Water at Fisherrow. When the bathing Water is predicted to fail to achieve minimum standards, the background loading from the River Esk (including runoff from agriculture) is not a significant cause of concern. Mine water is not expected to include bacteria likely to cause BW failures.

I hope this assists to finalise the briefing.

Regards

[redacted]

[redacted]
[redacted]
Scottish Water
[redacted]@scottishwater.co.uk
[redacted]

SW Public
General

From: [redacted]
Sent: 17 July 2020 12:34
To: [redacted]@gov.scot; [redacted]@SCOTTISHWATER.CO.UK>; [redacted]@gov.scot>
Cc: [redacted]@SCOTTISHWATER.CO.UK>
Subject: RE: Public health implications of minewater discharge in South Esk

[redacted]
Leave it with me and I will check with colleagues.
Thanks

[redacted]

[redacted]
[redacted]
Scottish Water
[redacted]@scottishwater.co.uk
[redacted]

SW Public
General

From: [redacted]@gov.scot]
Sent: 17 July 2020 12:02
To: [redacted]@scottishwater.co.uk>; [redacted]
[redacted]@SCOTTISHWATER.CO.UK>; [redacted]@gov.scot>
Cc: [redacted]@SCOTTISHWATER.CO.UK>
Subject: RE: Public health implications of minewater discharge in South Esk

Thanks [redacted],

Colleagues have replied:

I'm sure that Fisherrow Bathing Water de-designation will also be raised by Colin Beattie so it would be worthwhile if SW could also offer some lines in relation to this matter.

Obviously, Fisherrow Sands is closely linked to the Portobello Bathing Waters so SW improvement work tends to benefit all of them. Clearly, an indication of the SW expenditure and works that have been carried out to improve bathing water quality would be useful along with any proposed future projects targeted to improve bathing water quality would be good. We funded a misconnections project that targeted the Brunstane Burn catchment, amongst others, that Scottish Water have been heavily involved in. Eastfield PS at the foot of the Brunstane Burn has had issues since 2019 due to pump failure and this is the only SW asset that I'm aware of in close proximity to Fisherrow Bathing Water.

It would also be good hear Scottish Water's position on the impact of the River Esk on Fisherrow bathing water quality as it is their impact modelling work, along with SEPA's monitoring, that helps inform us how significant it is.

Are you able to add some information on Fisherrow?

Thanks,

[redacted]
Policy Officer
Water Industry Team
Scottish Government
Office: [redacted]
Mobile: [redacted]

From: [redacted]@scottishwater.co.uk>
Sent: 17 July 2020 10:10
To: [redacted]@gov.scot>; [redacted]

[redacted]@SCOTTISHWATER.CO.UK>; [redacted]@gov.scot>
Cc: [redacted]@SCOTTISHWATER.CO.UK>
Subject: RE: Public health implications of minewater discharge in South Esk

[redacted]

[redacted] has pulled together the key points of our involvement with Colin Beattie MSP to date about The River Esk and also Maryburn. I hope this is helpful for your briefing to The Minister.

Kind Regards

[redacted]

- Scottish Water are actively engaged with Colin Beattie MSP as well as directly with constituents in relation to discharges from combined sewer overflows (CSOs) into the River Esk and has confirmed their participation in the Esk River Improvement Group being set up by the MSP. They are also continuing to engage with local activists in the area.
- Scottish Water, with SEPA, also met Colin Beattie on 12th June to discuss his concerns and have committed to clean-ups and further investigations as necessary of the sites raised as concerns.
- In June 2020, Scottish Water received reports of sewage related debris near outfalls at two locations near Dalkeith linked to the South River Esk. One was the Benbught Burn near Newbattle Golf Course, Dalkeith and the other was an outfall known as Waterfall Park, in the same area but to the East of the South Esk River.
- There is a Scottish Water Combined Sewer Overflow (CSO) that has an outfall to the Benbught Burn and, on being alerted to problems of sewage debris (wipes and sanitary items), Scottish Water attended to inspect and arranged a clean-up. The items in the burn looked like they had accumulated over time and the volume of items appeared to be a result of multiple spills rather than a particular event and there was no sign a fresh/new spill into the burn. A clean up was completed and the local network and infrastructure checked to ensure there were no defects.
- At Waterfall Park, there is no Scottish Water outfall at this location. The outfall that has been identified by locals is what is known as a piped or culverted watercourse outfall. There was a lot of debris on the metal grill at this location, which was removed by Scottish Water. Most of this appeared to be litter but there was some evidence of items that have been wrongly flushed down the toilet. Scottish Water have reviewed the network and are monitoring to see if there are any cross-connections, where properties have incorrectly connected a foul pipe into the surface water network.
- Previously following concerns raised by a constituent as well as Colin Beattie, there had been a significant clean-up operation carried out at Mary Burn, Lord Ancrum's Wood. Following this and as of June 2020, Scottish Water had not seen any spills into the Mary Burn from the CSO at this location , although they are aware that this was a period of dry weather. They are continuing to monitor this location over the summer and early indications are that it looks like the adjustments made at the asset to date have made an improvement.
- Scottish Water also carried out a proactive advocacy campaign in area schools and within the media to encourage customers not to put wipes and other inappropriate items down drains. They are continuing efforts to raise awareness via social media and have established partnerships with Keep Scotland Beautiful and other organisations to continue efforts to encourage customers to only flush pee, poo and paper down toilets.
- CSOs are an important part of the sewer network. Historically sewers in this area were built as combined sewers to transport both foul waste and some statutory surface water and there is a need to have outlets within the sewer network to divert surface water during times of heavy rain so as not to overload the sewers and cause the flooding of foul waste internally within

properties. These CSOs are licensed by SEPA with requirements in place for their operation. Although the discharge from these CSOs are primarily surface water with dilute amounts of sewage, unfortunately if items such as wipes and sanitary products are present in the sewers, these can be found at CSOs.

- Scottish Water now require the use of more modern building practices for new build properties and developments to ensure that there are separate foul sewers and surface water sewers installed. They also have a broader surface water management policy requiring any developer wanting to redevelop sites in areas where there is historic infrastructure to identify alternative solutions for managing surface water out with the foul sewer network. Over time, the aim is to reduce the risk of sewage pollution in the environment, however this is a challenging area not easily overcome due to the way sewerage infrastructure was historically designed and built and as a result of inappropriate items being put down customer drains.
- Scottish Water is committed to environmental improvement and invests significant amounts each year to reduce instances of sewer pollution and flooding. They are also committed to working with SEPA to ensure that investment is prioritised and delivers best value for the environment.

[redacted]
[redacted]
Scottish Water
[redacted]@scottishwater.co.uk
[redacted]

SW Public
General

From: [redacted]@gov.scot [mailto:[redacted]@gov.scot]
Sent: 16 July 2020 09:15
To: [redacted]@SCOTTISHWATER.CO.UK>
Cc: [redacted]@scottishwater.co.uk>
Subject: RE: Public health implications of minewater discharge in South Esk

Morning [redacted]

We now have confirmation that the call is set for 29 July so we require briefing by 22 July.

Thanks,

[redacted]
Policy Officer
Water Industry Team
Scottish Government
Office: [redacted]
Mobile: [redacted]

From: [redacted]@SCOTTISHWATER.CO.UK>
Sent: 02 July 2020 18:31
To: [redacted]@gov.scot>
Cc: [redacted]@scottishwater.co.uk>
Subject: RE: Public health implications of minewater discharge in South Esk

Hi [redacted]

I'm going to be off next week and [redacted] and [redacted] will be dealing with this one.

Can you advise when you need the briefing material?

Many thanks

[redacted]

[redacted]
Public Affairs Officer
Scottish Water
Tel: [redacted]

www.scottishwater.co.uk/listening

SW Public
General

From: [redacted]@gov.scot [mailto:[redacted]@gov.scot]
Sent: 30 June 2020 14:42
To: Public Affairs
Subject: FW: Public health implications of minewater discharge in South Esk

EXTERNAL MAIL - Think Before You Click

Hi [redacted]
We have more correspondence on the Esk – you'll note that Ms Cunningham wishes to have a discussion with Mr Beattie.
We'll be asked to provide briefing on this. Are you able to offer a more detailed overview of SW's position here?
I don't have a fixed deadline yet (the response to this email is due 14 July) but I can update once I know a meeting is agreed.
Thanks,

[redacted]
Policy Officer
Water Industry Team
Scottish Government
Office: [redacted]
Mobile: [redacted]

[redacted]

[redacted]

****

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****

From: [redacted]
To:
Subject: Ministerial Sewage Pollution Statement Q&A - 20 December 2021
Date: 03 August 2022 11:38:00
Importance: High

From: [redacted]@SCOTTISHWATER.CO.UK>
Sent: 20 December 2021 16:53
To: [redacted]@gov.scot>
Cc: [redacted]@scottishwater.co.uk>; [redacted]@SCOTTISHWATER.CO.UK>; [redacted]@gov.scot>
Subject: FW: URGENT request - Improving Urban waters statement briefing
Importance: High

Hi [redacted]

Some information for you for the briefing re the River Clyde. Hopefully you find this helpful.

Scottish Water, in partnership with the MGSDP (the Metropolitan Glasgow Strategic Drainage Partnership) has been delivering a series of multi-million pound investments to transform an ageing waste water network and deliver a modern, integrated, and sustainable drainage system fit for the needs of 21st century Glasgow. This investment includes upgrades to around 200 Combined Sewer Overflows (CSO's), which will improve the natural environment of the River Clyde and tributaries such as the River Kelvin and White Cart Water.

Shieldhall Tunnel

The flagship Shieldhall Tunnel, in the south of Glasgow, was brought into service in July 2018 and it is the biggest waste water tunnel ever to be built in Scotland, designed to improve the natural environment of the River Clyde, reduce flooding issues at key locations and enable growth and economic development. The tunnel was constructed using a specially designed, 1,000 tonne, 180-metre-long, tunnel boring machine. At 3.1 miles long it is five times longer than the Clyde Tunnel and it's 4.7 metres diameter is big enough to fit a double decker bus inside. The Story of the Shieldhall Tunnel - Scottish Water

River Kelvin

Work started in 2019 and is due through to Autumn of 2022 on improvements in 11 locations to transform Glasgow's waste water system and deliver new infrastructure and improvements to benefit the environmental quality of the River Kelvin. This is a multi-million pound investment to help prevent items which are wrongly flushed down the toilet (such as rags, wipes, etc) from overflowing into the River Kelvin. River Kelvin - Scottish Water

Yoker and Clydebank Water Quality and Flooding Projects

Work to improve the wastewater infrastructure in the Yoker area of Glasgow and part of Clydebank includes a new sewer tunnel in Yoker, installed using a special tunnel boring machine and the construction of two new Combined Sewer Overflows (CSOs). This investment will help improve the water quality and natural environment of the River Clyde and tackle flooding issues. More information on the project can be found here.

Polmadie

At Polmadie, Scottish Water is currently completing investment to improve waste water infrastructure and help protect the environment and water quality of the Mallsmire Burn and the River Clyde.

Upgrade at Ferniegair Waste Water Treatment Works

Scottish Water are progressing work to upgrade Ferniegair Waste Water Treatment Works near Hamilton. The investment in new infrastructure at the works, which treats waste water for 2,000 customers in the villages of Ferniegair and Allanton, will improve the operability and resilience of the facility, help protect the natural environment of the River Clyde and enable growth in the community. The project, which is being delivered by Scottish Water's internal Managed Delivery team, started in August 2020 and is expected to be completed this summer.

SW Internal
General

From: [redacted]@gov.scot>
Sent: 20 December 2021 14:18
To: [redacted]@scottishwater.co.uk>
Cc: [redacted]@gov.scot>
Subject: URGENT request - Improving Urban waters statement briefing
Importance: High

EXTERNAL MAIL - Think Before You Click

Hi [redacted]

We've been told to expect a follow up at the Minister's statement on Wednesday

Marie McNair: *"As the Cabinet Secretary/Minister will know my constituency has a very well-known water border with significant links to Scotland's shipbuilding past and present. That being the River Clyde. However, with the industrial past of the Clyde and surrounding areas, the river has been deeply affected. Can the Cabinet Secretary/Minister outline future plans to prevent future contamination in order to improve the water quality of the Clyde particularly for habitats and biodiversity?"*

Can you outline recent and or planned investment specifically related to the water quality if the previously industrialised R Clyde? **I need a few bullet points by 5 pm tonight if possible?**

[redacted] **Water Policy and DECC Operations Division | Scottish Government | 3F South | Victoria Quay | Edinburgh | EH6 6QQ |** [redacted]

I am currently working from home, my normal working hours are 08:00-17:00

sender immediately by return.
Communications with the Scottish Government may be monitored or recorded in order to secure the effective operation of the system and for other lawful purposes. The views or opinions contained within this e-mail may not necessarily reflect those of the Scottish Government.
****

From: [redacted]
To:
Subject: Ministerial Sewage Pollution Statement Q&A - 9 December 2021
Date: 03 August 2022 11:32:00
Attachments: CSO media lines July 2021 Updated with Route Map Dec 21.docx

---

From: [redacted]@SCOTTISHWATER.CO.UK>
Sent: 09 December 2021 12:06
To: [redacted]@gov.scot>; [redacted]@gov.scot>
Cc: [redacted]@scottishwater.co.uk>; [redacted]
[redacted]@scottishwater.co.uk>
Subject: RE: Ministerial Statement Q&A request

Hi both

Not sure how but I think I have sent the wrong attachment yesterday (ie pre update version).

The updated version now attached:

[redacted]

SW Internal
Personal

From: [redacted]
Sent: 08 December 2021 11:20
To: [redacted]@gov.scot; [redacted]@gov.scot
Cc: [redacted]@scottishwater.co.uk>; [redacted]
[redacted]@scottishwater.co.uk>
Subject: RE: Ministerial Statement Q&A request

[redacted]

Please find attached updated version of the media lines we previously issued to include changes and information on what we have identified within the 'Improving Urban Waters Route Map'.

We'll get back to you separately on the cost of delivering WwTW and UID improvements over the last 11 years.

The following bullets join together the IUW Route Map commitments with our understanding of the current position/need for improvement in the **River Almond**.

Background

- The River Almond is currently classed as Water Framework Directive (WFD) moderate status (ie <Good). Pressures preventing Good status include point source and diffuse pollution and barriers to fish migration.
- The Almond Valley area has been studied by Scottish Water to determine the impact of our various point source discharges on the river. 10 WwTW and 86 CSOs were considered in a study delivered under our last investment plan.
- The study (report available) identified that improvement in the level of treatment would be required at 7 WwTW to support meeting WFD Good status. These WwTW are:
    - Fauldhouse, Harthill, Winchburgh and Livingston which are operated by SW
    - Whitburn, Blackburn and East Calder which are operated by Veolia under PFI contract until December 2029. Negotiating changes in the contracted level of treatment will be difficult and expensive at these WwTW.
    - Improvement in Phosphorus concentrations are required to very low levels at all WwTW. Ammonia improvements are also required at Blackburn and Fauldhouse and BOD improvements are also necessary at Fauldhouse.
    - Some of these interventions will cost many £ms with total investment estimated at £30m to £50m.
- The study also identified that CSO discharges at Blackburn, Harthill and Fauldhouse WwTWs and at one CSO within the Fauldhouse network also have the potential to impact water quality and enhancements (increased storage volume or storm water separation) to achieve a reduction in spill frequency and volume will be required to support WFD Good Status.
- Several CSOs in the wider River Almond Catchment have unsatisfactory storm spill screening and, whilst improvements in these CSOs are **not** a high priority for improvement in the short term (ie they do not feature in the 85 high priority locations referred to in the IUW Route Map), these needs will ultimately require to be addressed.

Current / Planned Activity

- We have committed to supporting RBMP3 and seeking to improve 24 CSO and 42 WwTW discharges impacting Water Quality.
- In the Almond, we have initiated work to develop detailed options to deliver the improvements in treatment / spills required in order to better define costs and test the proportionality of the enhancements required. In doing this, we are looking at all of the options (ie rationalising assets, etc) to deliver the required benefit.
- SEPA policy (WAT-RM-41) sets out the procedure for establishing proportionality which is based on £/ km water improved / year and consideration of a wider suite of benefits. Some enhancements may be considered disproportionate.
- This options development work is expected to be complete in late 2022.
- Separately, we have been looking to identify the source of sewage related debris

found at high amenity parts of the Almond. We have had a programme of river walks and asset inspections to confirm problem areas. This work over 2021 has sown that there are some cross connections in the catchment (where foul sewers have been connected wrongly into surface water systems) but that, in the main the East Calder sewerage system is working as designed.

- Veolia is looking to better understand the source of higher flows than usual arriving at its East Calder WwTW which have resulted in some over-topping events.
- We are moving forward with our plans to develop our WW Intelligent Network capability in 3 catchments (IUW Route Map). One of these catchments is East Calder - the largest catchment discharging to the Almond.
- We anticipate that the intelligent network will give us proactive warning that levels are building up in the sewer network and that spill or flooding events might be occurring. This will allow us to be more transparent in our operations and to move towards being able to notify water users that problems might be occurring in near real time.
- As we move beyond the our commitment to develop solutions for the highest priority CSOs causing sewage debris, we would expect to look at unsatisfactory CSOs in the River Almond catchment. However, in looking at how to address Water Quality issues (above) we will consider the needs of the wider catchment, identifying opportunities to deliver additional benefits where it is possible to do this.
- We are committed to working with the River Almond Action Group to support their ambitions wherever possible and we are part of a wider MP / MSP chaired stakeholder group looking at initiatives to drive improvement. We plan to initiate a transformative project in the Almond Catchment that will deliver and showcase water environment improvements including spill reductions, surface water removal and place-making opportunities. A focus of this projects will be partnership working with communities and customers. We have yet to fully agree the scope of this project but we see the RAAG and is stakeholders are central to this.

I hope this is sufficient. If you have any questions, please let me know.

[redacted]

[redacted]
Strategic Customer Service Planning

Tel: [redacted]
Email: [redacted]@scottishwater.co.uk

SW Internal
Personal

From: [redacted]@scottishwater.co.uk>
Sent: 07 December 2021 14:38

To: [redacted]@gov.scot>; [redacted]@gov.scot>; [redacted]@SCOTTISHWATER.CO.UK>; [redacted]@scottishwater.co.uk>
Subject: RE: Ministerial Statement Q&A request

[redacted] – thanks. On a different note I need to give you a call. What's your mobile number?

[redacted] – do this clarify the ask?

[redacted]

SW Internal
Personal

From: [redacted]@gov.scot>
Sent: 07 December 2021 14:32
To: [redacted]@scottishwater.co.uk>; [redacted]@gov.scot>; [redacted]@SCOTTISHWATER.CO.UK>; [redacted]@scottishwater.co.uk>
Subject: RE: Ministerial Statement Q&A request

[redacted] – I was thinking of the CSO media lines brief in the attached. Let me know if you can't open it

[redacted] | Water Policy and DECC Operations Division | Scottish Government | 3F South | Victoria Quay | Edinburgh | EH6 6QQ | [redacted]

I am currently working from home, my normal working hours are 08:00-17:00

From: [redacted]@scottishwater.co.uk>
Sent: 07 December 2021 13:53
To: [redacted]@gov.scot>; [redacted]@gov.scot>; [redacted]@SCOTTISHWATER.CO.UK>; [redacted]@scottishwater.co.uk>
Subject: RE: Ministerial Statement Q&A request
Importance: High

[redacted] – please can you send over the previous Q&A so I am confident [redacted] will update the right document!

[redacted] – to note this urgent request for briefing which is beyond the original Q&A with a deadline for Thursday.

[redacted]

SW Internal

Personal

From: [redacted]@gov.scot>
Sent: 07 December 2021 11:03
To: [redacted]@scottishwater.co.uk>
Subject: FW: Ministerial Statement Q&A request

EXTERNAL MAIL - Think Before You Click

Morning [redacted],

Hope you are well.

As you'll be aware, there will be a statement in parliament in line with the publication of RBMP3 and urban waters improvement routemap. As part of this the Minister will be expected to take questions.

[redacted] noted you had previously sent a Q&A document – would you be able to provide an updated version which we can use to input to the Minister's briefing? I think there have been more recent developments in relation to RBMP discussions between SW/SEPA, and the continuing media interest. We'd also like to provide info on CSO monitoring (what it does/doesn't do, SW's plans), blockages (3 Ps campaign) and specifically some info on the River Almond improvements as that's likely to arise. You'll see our colleague has provided some numbers from SEPA, can you confirm these are accurate and what the level of investment is?

For our part, we'll provide some of our standard lines on flooding and the investment programme.

Apologies for the short deadline, but we need the info by Thursday the 9th December to meet the deadline.

Thanks for your help!

Regards,

[redacted]
Policy Officer
Water Industry Team
Scottish Government
Office: [redacted]
Mobile: [redacted]

[redacted]

[redacted]

Combined Sewer Overflow (CSO) position

How many CSOs do we have across Scotland?

Scottish Water has a total of 3,614 CSOs across its wastewater network and treatment assets. There is 50,000km of sewer network in Scotland meaning tha, on average there is one CSO for every 15km of sewer network.

What do CSOs do?

A Combined Sewer Overflow (CSO) acts as a controlled pressure relief outlet when the combined storm water and foul system become overwhelmed with heavy rainfall, protecting customers from flooding in their homes and businesses.

Combined sewer overflows are an integral part of most of the sewer networks in Scotland and the UK, ensuring that sewers do not back up and flood homes, streets and sewage works during heavy rainfall.

They should therefore spill during storm events but should not cause pollution if they are correctly designed and maintained.

As such, CSOs are licensed by SEPA to discharge to the environment via river and coastal waterbodies under certain conditions.

What makes a CSO unsatisfactory, why are they unsatisfactory and how many of these do we have?

Discharges via CSOs can be unsatisfactory due to:

- Operation causing water quality impacts
- Operation during dry weather
- Operation causing aesthetic (sewage related debris) impact
- Failure to meet licence conditions

It should be noted that an individual CSO can be classed as Unsatisfactory for more than one reason.

We base our assessment of whether an overflow is Unsatisfactory on the actual environmental impact that the sewer overflow is causing, rather than the number of spills recorded by monitors or predicted by hydraulic modelling, which can vary widely according to the intensity and duration of storms in any particular year.

During 2010-2021, SW improved 279 CSOs which were previously classed as Unsatisfactory.

Note that CSOs can be considered to be Satisfactory in their design but can still cause intermittent pollution due to blockages or breakdowns elsewhere in the sewer network.

These blockages can be caused by inappropriate customer products being disposed of to sewer, sewer collapse or sediment build-up. These situations are being actively managed by Scottish Water through customer education and operational sewer maintenance.

How did we identify unsatisfactory CSOs?

In the investment period 2015 – 2021 Scottish Water carried out a pan- Scotland environmental study programme to investigate potential unsatisfactory CSOs to confirm whether these had any environmental impact.

The study programme was developed through a review of environmental performance and asset operation through staff within Scottish Water and SEPA. Complaints of operational problems (dry weather operation) and evidence of Sewage Related Debris (SRD) were considered and all waterbodies not meeting 'Good Status' were reviewed to consider whether CSO operation (discharges) could be contributing to these problems.

We then carried out robust surveys following a standardised, consistent processes.

Aesthetic studies were carried out to count and classify SRD to identify key CSOs where overflow screening might need to be improved.

We also carried out water quality studies to confirm whether our assets are likely to be impacting the waterbody classification. These water quality studies use standardised mathematical assessment techniques set out in the Urban Pollution Management (UPM) methodology that is typically used across the wider UK water industry.

These studies typically involve site inspections, installation of temporary monitoring equipment to study the hydraulics of the sewer network and modelling of the network to predict CSO spill frequency and volume and the impact that this is likely to have on receiving water quality.

We will continue to use this study approach in the future, initiating a study when we have determined that the asset is operating as expected (to rule out any maintenance issue) but where potential environmental impact appears to remain.

Investigations completed during our latest investment programme confirmed that out of the 827 CSOs thought potentially Unsatisfactory, 449 CSOs are Satisfactory whilst 378 CSOs are Unsatisfactory.

The total number of CSOs that are recorded as unsatisfactory (as of March 2021) is 656. This includes the 378 CSOs that have been identified as Unsatisfactory through study in our last investment programme and other CSOs already identified as Unsatisfactory through previous investigations.

What are our plans to reduce the number of unsatisfactory CSOs?

SEPA expects all Unsatisfactory CSOs to be resolved over time, unless it is disproportionate to do so, considering all possible short and long term solutions.

Scottish Water estimates that the overall cost for improving all Unsatisfactory CSOs in Scotland is approximately £650m. To facilitate a phased and affordable approach to reducing numbers, a joint strategy to prioritising improvement of Unsatisfactory CSOs using clearly defined criteria was agreed in 2020 between SEPA and Scottish Water to inform Scottish Water's forward investment plans.

Following investigation, all Unsatisfactory CSOs are classified using criteria of Very High, High, Medium or Low priority for resolution.

Scottish Water has prioritised 'Very High' criteria CSOs for immediate improvement and has confirmed inclusion of these in its future investment planning.

(See later section to reflect updates required as a result of creating our 'Improving Urban Waters Route Map'

What notifications are given to the public about a spill?

We do not currently have, or participate in, a spill alert notification system. Storm and emergency overflows (CSOs/EOs) are licensed by the Scottish Environment Protection Agency (SEPA) to discharge to the water environment under the controlled activities regulations (CAR). Licences contain conditions set by SEPA to protect the environment and include overflow settings, event recording and reporting requirements.

Licenses do not require permanent spill event monitors to be installed on all overflows. A number of Scottish Water CSOs and EOs have licence requirements for permanent spill event duration monitoring and of these a small subset require annual reporting of spill events to SEPA. However, SEPA can request additional spill event information from Scottish Water as required.

There is also a separate reporting process to SEPA for environmental pollution incidents. These are events where a watercourse is polluted due to a Scottish Water asset and Scottish Water has a regulatory obligation to report pollution incidents to SEPA. There are varying categories for these incidents, depending on the potential environmental impact.

What else are we doing?

SEPA requires CSOs to have event monitors installed permanently at 153 key locations, which record the date/time of any spills. Scottish Water has installed permanent monitoring at a further 201 CSOs and is installing a further 77 monitors at key locations over the next three years.

Plans are being developed to increase coverage to a further 246 CSOs, as well as rolling out approaches to create 'intelligent networks' which will help us to provide improved visibility and early warning capability and could ultimately support improved capacity control to help reduce the risk of customer flooding and pollution incidents.

Scottish Water has built and maintained a large number of network models which are used to predict the level of spill and any potential impact on the water environment.

What is our strategy?

We expect the number of Unsatisfactory CSOs to progressively increase as climate change leads to more frequent and intense storms. It will be neither effective, nor in some cases feasible, for Scottish Water to continue to build bigger pipes and storage tanks for combined sewer flows under the ground.

As a result, we are working with local councils to take a radical new approach to managing rainfall which uses blue-green infrastructure to absorb rainfall, reduce flood risk and minimise sewer overflow spills.

We will continue to investigate the impact of CSOs and prioritise investment where the need is greatest.

In our strategic plan we set out the ambition to transition to smart sewer networks to provide the visibility and capacity control to reduce the risk of customer flooding and pollution incidents.

We will also continue to campaign and encourage people to ensure that only the three Ps (pee, poo and (toilet) paper are flushed down toilets and fats, oil and grease (FOGs) are not poured down sinks to stop blockages, flooding and Environmental Pollution Incidents (EPIs).

How Scottish Water's approach to differs from English and Welsh companies

In England & Wales, the SOAF (Storm Overflow Assessment Framework) uses data (spill frequency / discharge volumes) from recently installed EDMs to set out next steps for investigation and improvement. The SOAF next steps typically describe the study activities that we have already undertaken and are described above in 'How did we identify unsatisfactory CSOs?'

English and Welsh companies have spill data from EDMs but not always the intelligence behind why the asset is spilling or whether it causing an environmental impact.

English and Welsh companies were funded for a wide scale roll out of EDMs, but this was not a requirement for Scottish Water's investment period 2015 – 2021.

We will use the intelligence gathered through our study programme to determine which catchments require additional monitoring as a priority.

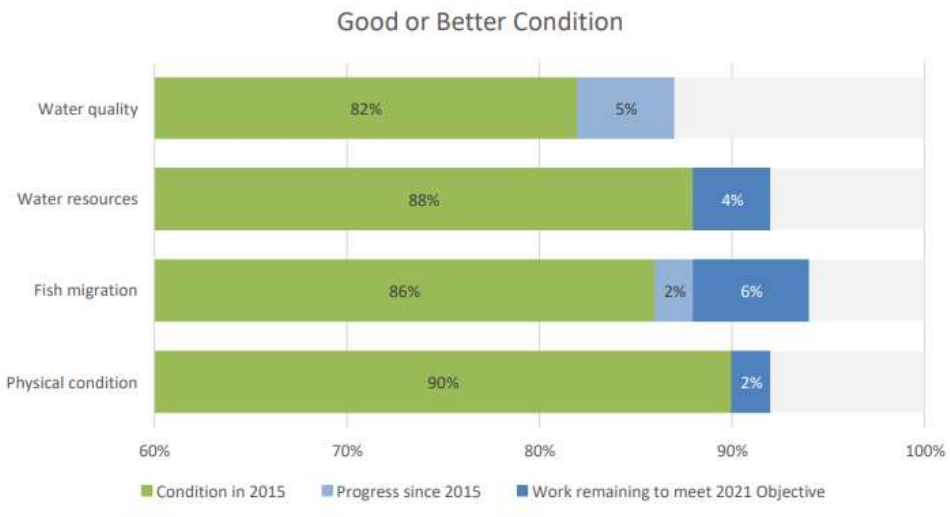
River Basin Management Plan 3

The river basin management plan (RBMP) sets out how Scottish Government, SEPA and other responsible authorities and partners work together to protect and improve the water environment in Scotland. The plan aims both to prevent deterioration and to improve the quality of the water environment to the 'good status' condition, at least. The plan is prepared by SEPA and approved by Scottish ministers on a 6 year cycle.

The draft third RBMP (2021-2027) was released in December 2020 and is under public consultation until June 2021.

The graphic below (source: SEPA draft RBMP3) shows the percentage of waterbodies at good or better condition.

Scottish Water wastewater assets have the ability to impact on the water quality metric described below with other SW operations impacting water resources and fish migration. 87% of waterbodies are classified as good or better for water quality and there is no outstanding work required by Scottish Water or third parties to achieve the 2021 objective.



The themes (water quality, water resources, fish migration and physical condition) alongside an assessment of invasive non-native species, SEPA classifies each part of the water environment based on the worst condition of any category. The combined classification indicates that 65% of the water environment overall is in good or better in 2019 (Source: SEPA draft RBMP3 consultation).

In the final version of RBMP3, Scottish Water will be required to deliver 24 improvements at unsatisfactory intermittent discharges to deliver improvements in water quality.

Scottish Water's Strategic Plan
Scottish Water's Strategic Plan states,

'We will continue investing to reduce the risk of flooding to customers impacted by repeat high consequence sewer flooding, and the risk of unsatisfactory intermittent discharges to the natural environment, where it is not disproportionately expensive.'

Improving Urban Waters Route Map – December 2021.

In our route map we commit to a number of activities to be completed prior to December 2024. We also commit to continuing these beyond 2024, setting and agreeing new priorities through engagement with a wider stakeholder group.

Key Outcomes and Commitments

Outcomes

- Improve water quality (to support Scotland's RBMP objectives).
- Increase monitoring and reporting to cover all combined sewer overflows (CSOs) that discharge into the highest priority waters.
- Significantly reduce sewer related debris in the environment, and
- Reduce spills from the sewer network

Commitments

By 2024 we will:

- Develop solutions for the remaining 24 CSOs confirmed as impacting water quality and identified as measures in the third RBMP to allow delivery of improvements by December 2027
- Install monitoring on network and treatment works CSOs discharging to the highest priority waters (including all designated shellfish and bathing waters), representing approximately 1,000 CSOs
    - These monitors will confirm spill frequency and duration and will allow us to make comparison with predicted spill frequencies (from models). We can then confirm whether spill frequency represents an environmental risk.
    - We can use the data from monitors to improve operational intelligence driving the need for further investigations on spill impact and for prioritising the need for interventions in the network and at WwTW.
    - We can use data to notify water users that spills have occurred and, over time, alert water users of spills in near real time.
    - We can use data to inform the scope of improvements required
- Deliver intelligent wastewater networks in 3 catchments (East Calder, Erskine and Lossiemouth) to expand our intelligence on network behaviour during dry weather and during rainfall and develop a plan for further roll-out of this approach and alignment with monitoring aspirations.
    - Intelligent networks go beyond event duration monitoring (EDM) referred to in the bullet above, giving us proactive warning that levels are building up in the sewer network and that spill or flooding events might be occurring. Ultimately, it is anticipated that monitoring will be provided through our intelligent network capability rather than through current EDM technology. Intelligent Networks will support our ambition to have real time control in our sewer networks.

- Support the Scottish Government to develop proposals to ban single use plastic products, such as wet wipes, and to improve labelling to promote correct disposal.
- Develop and roll out a campaign to educate customers to reduce instances of flushing items which impact the sewerage system.
- Develop solutions for those CSOs that are already confirmed as being high priority having significant SRD impacts on rivers (85 locations).
- Agree delivery timetables for the 85 high priority CSOs (currently estimated to cost around £100m - £130m) and promote for approval. Subject to approval, we will plan to deliver these CSO improvements by December 2027.
- Continue to identify solutions to reduce surface water volumes entering the sewer network by working in partnership with SEPA, local authorities, landowners and developers.
- Identify specific catchment-wide surface water management opportunities to help resolve the most significant spill impacts and to offset any future increases from climate change.

Beyond 2024, we will:

- Deliver water quality improvements to address 24 CSO water quality pressures identified within RBMP3 by 2027.
- Review, with SEPA, emerging information on water quality improvement needs and develop, prioritise and deliver solutions as appropriate.
- Roll out the intelligent network approach to cover additional catchments as appropriate.
- Develop solutions for all medium priority CSOs (around 150 locations) and agree delivery timetables for these (currently estimated to cost around £150m - £200m). We will promote these as a priority investment in the Ministerial Objectives for the period after 2027 and, subject to these being approved, we will plan to deliver improvements to these CSOs by December 2031.

From: [redacted]
To: [redacted]
Subject: RE: Daer visit - found my hard hat! eom
Date: 27 July 2021 09:08:28
Attachments: RE CSOs.msg
RE CSOs.msg

[redacted]
Are these the ones you are after?
[redacted]

[redacted]
[redacted]
Scottish Water
[redacted]@scottishwater.co.uk
[redacted]

SW Public
General

From: [redacted]@gov.scot>
Sent: 27 July 2021 09:02
To: [redacted]@scottishwater.co.uk>
Subject: RE: Daer visit - found my hard hat! eom

Looking forward to it. By the way could you ask someone to resend me the full 2-pager CSO document, I can't open the one [redacted] sent for some reason, though it was fine before

[redacted] **| Water Industry Division | Scottish Government | 3F South | Victoria Quay | Edinburgh | EH6 6QQ |** [redacted]

I am currently working from home, my normal working hours are 08:00-17:00

From: [redacted]@scottishwater.co.uk>
Sent: 27 July 2021 08:38
To: [redacted]@gov.scot>
Subject: RE: Daer visit - found my hard hat! eom

Good stuff – see you tomorrow…….in person !

[redacted]
[redacted]
Scottish Water
[redacted]@scottishwater.co.uk
[redacted]

SW Internal
General

From: [redacted]@gov.scot>
Sent: 27 July 2021 08:31

To: [redacted]@scottishwater.co.uk>
Subject: Daer visit - found my hard hat! eom

EXTERNAL MAIL - Think Before You Click

[redacted] | Water Industry Division | Scottish Government | 3F South | Victoria Quay | Edinburgh | EH6 6QQ | [redacted]

I am currently working from home, my normal working hours are 08:00-17:00

From: [redacted]
To: [redacted]
Cc: [redacted]
Subject: RE: CSOs
Date: 16 July 2021 16:23:24
Attachments: % WB_SW pressures_.docx

[redacted]

A final build to put CSOs and UIDs into a full context.

From SEPA's figures (attached):

- 86.3% of water bodies are at good status or better for water quality which is what CSOs impact on.
- Of the remaining 13.7% that are at moderate status or below (and the vast majority are at moderate status), Scottish Water impact on 1.3%.

[redacted]

SW Public
Commercial

From: [redacted]
Sent: 15 July 2021 12:55
To: [redacted]@gov.scot
Cc: [redacted]@SCOTTISHWATER.CO.UK>; [redacted]@scottishwater.co.uk>; [redacted]@SCOTTISHWATER.CO.UK>; [redacted]@scottishwater.co.uk>
Subject: RE: CSOs

[redacted]

Further to the bullets below the attached internal note contains more details and might have helpful facts and figures for your briefing for Ministers.

[redacted]

SW Public
Commercial

From: [redacted]
Sent: 15 July 2021 06:51
To: [redacted]@gov.scot
Cc: [redacted]@SCOTTISHWATER.CO.UK>; [redacted]@scottishwater.co.uk>; [redacted]@SCOTTISHWATER.CO.UK>; [redacted]

[redacted]@scottishwater.co.uk>
Subject: CSOs

[redacted]

In our helpful discussion on Tuesday we explored that it would be useful for you to have information on UIDS related to previous investment, projects on the Committed List, our plans to develop solutions over the next 6 years and our plans around monitoring. We have set out this information in the five bullets below.

You said you already have information on the broad number of CSOs and UIDs there are, and the status (GEQ) of Scotland's water bodies compared to E&W. I think the one further really important piece of contextual information is the proportion of water bodies in Scotland downgraded due to sewage impacts compared to other causes. Do you have that piece of information or would it be helpful for us to dig it out?

Let me know if there is other information that would be useful.

Kind regards

[redacted]
Scottish Water
[redacted] Strategy and Economic Regulation

- Since 2015 SW has invested £245m to address 117 UIDs
- They have committed projects to address a further 22 UIDS with investment to go on these projects of £11m.
- Over the next 6 years they plan to develop solutions to a further 35 UIDs that are the highest priority to address and are working with SEPA to maximise the number that can be progressed to delivery within the funding that is available.
- We recognise that customers and communities are increasingly interested in the operation of our wastewater networks and how these interact with the local environment. Starting with three priority catchments, Scottish Water are installing monitoring, both within the sewer network and at CSOs. This 'intelligent network' monitoring will anticipate and report on network performance, enable early operator intervention to mitigate issues, provide transparency on when CSOs are operating and provide information to support identification and planning for longer term network and CSO solutions to support improved waterbody status. Scottish Water anticipate expanding their intelligent network coverage following learning lessons in the 3 priority catchments.
- In addition Scottish Water is installing CSO event monitors to record spill frequency at 246 sensitive locations.

Combined Sewer Overflow (CSO) position

How many CSOs do we have across Scotland?

Scottish Water has a total of 3,614 CSOs across its wastewater network and treatment assets.

What do CSOs do?

A Combined Sewer Overflow (CSO) acts as a controlled pressure relief outlet when the combined storm water and foul system become overwhelmed with heavy rainfall, protecting customers from flooding in their homes and businesses.

Combined sewer overflows are an integral part of most of the sewer networks in Scotland and the UK, ensuring that sewers do not back up and flood homes, streets and sewage works during heavy rainfall.

They should therefore spill during storm events but should not cause pollution if they are correctly designed and maintained.

As such, CSOs are licensed by SEPA to discharge to the environment via river and coastal waterbodies under certain conditions.

What makes a CSO unsatisfactory, why are they unsatisfactory and how many of these do we have?

Discharges via CSOs can be unsatisfactory due to:

- Operation causing water quality impacts
- Operation during dry weather
- Operation causing aesthetic (sewage related debris) impact
- Failure to meet licence conditions

It should be noted that an individual CSO can be classed as Unsatisfactory for more than one reason.

We base our assessment of whether an overflow is Unsatisfactory on the actual environmental impact that the sewer overflow is causing, rather than the number of spills recorded by monitors or predicted by hydraulic modelling, which can vary widely according to the intensity and duration of storms in any particular year.

During 2010-2020, SW improved 257 CSOs which were previously classed as Unsatisfactory.

Note that CSOs can be considered to be Satisfactory in their design but can still cause intermittent pollution due to blockages or breakdowns elsewhere in the sewer network.

These blockages can be caused by inappropriate customer products being disposed of to sewer, sewer collapse or sediment build-up. These situations are being actively managed by Scottish Water through customer education and operational sewer maintenance.

How did we identify unsatisfactory CSOs?

In the investment period 2015 – 2021 Scottish Water carried out a pan- Scotland environmental study programme to investigate potential unsatisfactory CSOs to confirm whether these had any environmental impact.

The study programme was developed through a review of environmental performance and asset operation through staff within Scottish Water and SEPA. Complaints of operational problems (dry weather operation) and evidence of Sewage Related Debris (SRD) were considered and all waterbodies not meeting 'Good Status' were reviewed to consider whether CSO operation (discharges) could be contributing to these problems.

We then carried out robust surveys following a standardised, consistent processes.

Aesthetic studies were carried out to count and classify SRD to identify key CSOs where overflow screening might need to be improved.

We also carried out water quality studies to confirm whether our assets are likely to be impacting the waterbody classification. These water quality studies use standardised mathematical assessment techniques set out in the Urban Pollution Management (UPM) methodology that is typically used across the wider UK water industry.

These studies typically involve site inspections, installation of temporary monitoring equipment to study the hydraulics of the sewer network and modelling of the network to predict CSO spill frequency and volume and the impact that this is likely to have on receiving water quality.

We will continue to use this study approach in the future, initiating a study when we have determined that the asset is operating as expected (to rule out any maintenance issue) but where potential environmental impact appears to remain.

Investigations completed during our latest investment programme confirmed that out of the 827 CSOs thought potentially Unsatisfactory, 449 CSOs are Satisfactory whilst 378 CSOs are Unsatisfactory.

The total number of CSOs that are recorded as unsatisfactory (as of March 2021) is 656. This includes the 378 CSOs that have been identified as Unsatisfactory and those CSOs already identified as Unsatisfactory.

What are our plans to reduce the number of unsatisfactory CSOs?

SEPA expects all Unsatisfactory CSOs to be resolved over time, unless it is disproportionate to do so, considering all possible short and long term solutions.

Scottish Water estimates that the overall cost for improving all Unsatisfactory CSOs in Scotland is approximately £650m. To facilitate a phased and affordable approach to reducing numbers, a joint strategy to prioritising improvement of Unsatisfactory CSOs using clearly defined criteria

was agreed in 2020 between SEPA and Scottish Water to inform Scottish Water's forward investment plans.

Following investigation, all Unsatisfactory CSOs are classified using criteria of Very High, High, Medium or Low priority for resolution.

Scottish Water has prioritised 'Very High' criteria CSOs for immediate improvement and has confirmed inclusion of these in its future investment planning.

What notifications are given to the public about a spill?

We do not currently have, or participate in, a spill alert notification system. Storm and emergency overflows (CSOs/EOs) are licensed by the Scottish Environment Protection Agency (SEPA) to discharge to the water environment under the controlled activities regulations (CAR). Licences contain conditions set by SEPA to protect the environment and include overflow settings, event recording and reporting requirements.

Licenses do not require permanent spill event monitors to be installed on all overflows. A number of Scottish Water CSOs and EOs have licence requirements for permanent spill event duration monitoring and of these a small subset require annual reporting of spill events to SEPA. However, SEPA can request additional spill event information from Scottish Water as required.

There is also a separate reporting process to SEPA for environmental pollution incidents. These are events where a watercourse is polluted due to a Scottish Water asset and Scottish Water has a regulatory obligation to report pollution incidents to SEPA. There are varying categories for these incidents, depending on the potential environmental impact.

What else are we doing?

SEPA requires CSOs to have event monitors installed permanently at 153 key locations, which record the date/time of any spills. Scottish Water has installed permanent monitoring at a further 201 CSOs and is installing a further 77 monitors at key locations over the next three years.

Plans are being developed to increase coverage to a further 246 CSOs, as well as rolling out approaches to create 'intelligent networks' which will help us to provide improved visibility and early warning capability and could ultimately support improved capacity control to help reduce the risk of customer flooding and pollution incidents.

Scottish Water has built and maintained a large number of network models which are used to predict the level of spill and any potential impact on the water environment.

What is our strategy?

We expect the number of Unsatisfactory CSOs to progressively increase as climate change leads to more frequent and intense storms. It will be neither effective, nor in some cases

feasible, for Scottish Water to continue to build bigger pipes and storage tanks for combined sewer flows under the ground.

As a result, we are working with local councils to take a radical new approach to managing rainfall which uses blue-green infrastructure to absorb rainfall, reduce flood risk and minimise sewer overflow spills.

We will continue to investigate the impact of CSOs and prioritise investment where the need is greatest.

In our strategic plan we set out the ambition to transition to smart sewer networks to provide the visibility and capacity control to reduce the risk of customer flooding and pollution incidents.

We will also continue to campaign and encourage people to ensure that only the three Ps (pee, poo and (toilet) paper are flushed down toilets and fats, oil and grease (FOGs) are not poured down sinks to stop blockages, flooding and Environmental Pollution Incidents (EPIs).

How Scottish Water's approach to differs from English and Welsh companies

In England & Wales, the SOAF (Storm Overflow Assessment Framework) uses data (spill frequency / discharge volumes) from recently installed EDMs to set out next steps for investigation and improvement. The SOAF next steps typically describe the study activities that we have already undertaken and are described above in 'How did we identify unsatisfactory CSOs?'

English and Welsh companies have spill data from EDMs but not always the intelligence behind why the asset is spilling or whether it causing an environmental impact.

English and Welsh companies were funded for a wide scale roll out of EDMs, but this was not a requirement for Scottish Water's investment period 2015 – 2021.

We will use the intelligence gathered through our study programme to determine which catchments require additional monitoring as a priority.

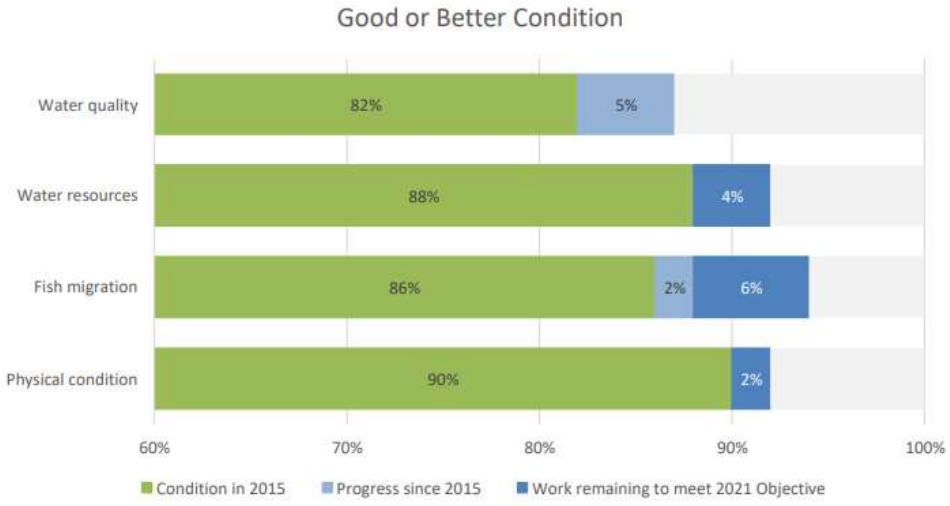
River Basin Management Plan 3

The river basin management plan (RBMP) sets out how Scottish Government, SEPA and other responsible authorities and partners work together to protect and improve the water environment in Scotland. The plan aims both to prevent deterioration and to improve the quality of the water environment to the 'good status' condition, at least. The plan is prepared by SEPA and approved by Scottish ministers on a 6 year cycle.

The draft third RBMP (2021-2027) was released in December 2020 and is under public consultation until June 2021.

The graphic below (source: SEPA draft RBMP3) shows the percentage of waterbodies at good or better condition.

Scottish Water wastewater assets have the ability to impact on the water quality metric described below with other SW operations impacting water resources and fish migration. 87% of waterbodies are classified as good or better for water quality and there is no outstanding work required by Scottish Water or third parties to achieve the 2021 objective.



The themes (water quality, water resources, fish migration and physical condition) alongside an assessment of invasive non-native species, SEPA classifies each part of the water environment based on the worst condition of any category. The combined classification indicates that 65% of the water environment overall is in good or better in 2019 (Source: SEPA draft RBMP3 consultation).

In the draft RBMP3, Scottish Water is required to deliver 54 improvements at unsatisfactory intermittent discharges. However, a large proportion of these improvements do not yet have a confirmed need and Scottish Water is studying these assets to confirm whether they are causing the observed environmental impact.

There are 11 CSOs which have been confirmed as having an impact on 9 different waterbodies.
There are 27 CSOs which have not yet been confirmed as having an impact on 7 different waterbodies.
There are 16 CSOs where it has been proven through study that these are not impacting 10 waterbodies.
(Please note: there is duplication in the number of waterbodies in the statements above. For example, there may be an asset which is confirmed as having an impact and an asset which has been confirmed there is no impact on the same waterbody.)
The total number of waterbodies in the above statements is 22.

Scottish Water's Strategic Plan
Scottish Water's Strategic Plan states,

‘We will continue investing to reduce the risk of flooding to customers impacted by repeat high consequence sewer flooding, and the risk of unsatisfactory intermittent discharges to the natural environment, where it is not disproportionately expensive.’

20210716 For [redacted] - Number of waterbodies (%age of total) downgraded by point source discharges & % attributable to SW

	OVERALL STATUS		Water Quality		Water Flows & levels		Physical Condition		Access For Fish	
	No. WB	**%**	**No. WB**	**%**	**No. WB**	**%**	**No. WB**	**%**	**No. WB**	**%**
High	445		1274		1868		1641		2381	
Good	1606		1528		528		1283		34	
Moderate	747		419		291		109		34	
Poor	387		21		17		65		295	
Bad	64		7		40		151		n/a	
Total >/= good	2051		2802		2396		2924		2415	
Total < good	1198		447		348		325		329	
Good or better		63.13		86.24		87.32		90.00		88.01
Worse than good		36.87		13.76		12.68		10.00		11.99
Scottish Water assets impacting WB < good status										
Draft RBMP3-WB			53	11.9% (1.64%)	11	3.2% (0.4%)			5	1.5% (0.18%)
Revised RBMP3-WB			43	9.6% (1.32%)	11	3.2% (0.4%)			5	1.5% (0.18%)

SW Internal
General

From: [redacted]
To:
Subject: Ministerial Sewage Pollution Statement Q&A - Investment - 8 December 2021
Date: 03 August 2022 11:35:00

From: [redacted]@gov.scot>
Sent: 08 December 2021 17:09
To: [redacted]@scottishwater.co.uk>; [redacted]
[redacted]@gov.scot>
Cc: [redacted]@SCOTTISHWATER.CO.UK>; [redacted]
[redacted]@scottishwater.co.uk>
Subject: RE: Ministerial Statement Q&A request

Thanks [redacted] – yes I think that'll do it. I'll review properly first thing tomorrow and get back to you if we need anything further or different. Thanks too to [redacted] and colleagues for the quick turnaround, it's really appreciated at such short notice – I'm afraid we are seeing more and more requests of this nature with little advance warning but we are working actively to minimise these as far as possible.

[redacted]

[redacted] | Water Policy and DECC Operations Division | Scottish Government | 3F South | Victoria Quay | Edinburgh | EH6 6QQ | [redacted]
[redacted]

I am currently working from home, my normal working hours are 08:00-17:00

From: [redacted]@scottishwater.co.uk>
Sent: 08 December 2021 15:45
To: [redacted]@gov.scot>; [redacted]@gov.scot>
Cc: [redacted]@SCOTTISHWATER.CO.UK>; [redacted]
[redacted]@scottishwater.co.uk>
Subject: FW: Ministerial Statement Q&A request

[redacted]

To see our numbers re the amount invested to deliver the WWTW improvements and CSOs referenced by SEPA – c. £685m. If you want to talk about all WW enhancements since 2010 the amount invested increases to £1.1bn.

Is this what you were looking for?

Kind regards

[redacted]

SW Internal
Personal

From: [redacted]@SCOTTISHWATER.CO.UK>
Sent: 08 December 2021 14:25
To: [redacted]@SCOTTISHWATER.CO.UK>; [redacted]@scottishwater.co.uk>; [redacted]@SCOTTISHWATER.CO.UK>
Cc: [redacted]@scottishwater.co.uk>; [redacted]@SCOTTISHWATER.CO.UK>
Subject: RE: Ministerial Statement Q&A request

[redacted]

The spend for UIDs was £355m and for WWTW was £331m. £686m in total.

This is environmental spend specifically on the programmes that delivered these outputs.

There was another £422m of spend on WW enhancements that includes a variety of other programme areas but the main ones being Sewer Flooding and SR06 Completion. When this is included we have spend £1.1bn on WW enhancements from SR10 to SR21.

Regards
[redacted]

From: [redacted]@scottishwater.co.uk>
Sent: 07 December 2021 13:53
To: [redacted]@gov.scot>; [redacted]@gov.scot>; [redacted]@SCOTTISHWATER.CO.UK>; [redacted]@scottishwater.co.uk>
Subject: RE: Ministerial Statement Q&A request
Importance: High

[redacted] – please can you send over the previous Q&A so I am confident [redacted] will update the right document!

[redacted] – to note this urgent request for briefing which is beyond the original Q&A with a deadline for Thursday.

[redacted]

SW Internal

Personal

From: [redacted]@gov.scot>
Sent: 07 December 2021 11:03
To: [redacted]@scottishwater.co.uk>
Subject: FW: Ministerial Statement Q&A request

EXTERNAL MAIL - Think Before You Click

Morning [redacted]

Hope you are well.

As you'll be aware, there will be a statement in parliament in line with the publication of RBMP3 and urban waters improvement routemap. As part of this the Minister will be expected to take questions.

[redacted] noted you had previously sent a Q&A document – would you be able to provide an updated version which we can use to input to the Minister's briefing? I think there have been more recent developments in relation to RBMP discussions between SW/SEPA, and the continuing media interest. We'd also like to provide info on CSO monitoring (what it does/doesn't do, SW's plans), blockages (3 Ps campaign) and specifically some info on the River Almond improvements as that's likely to arise. You'll see our colleague has provided some numbers from SEPA, can you confirm these are accurate and what the level of investment is?

For our part, we'll provide some of our standard lines on flooding and the investment programme.

Apologies for the short deadline, but we need the info by Thursday the 9th December to meet the deadline.

Thanks for your help!

Regards,

[redacted]
Policy Officer
Water Industry Team
Scottish Government
Office: [redacted]
Mobile: [redacted]

[redacted]

[redacted]

From: [redacted]
To: [redacted]
Cc: [redacted]
Subject: RE: Urban waters routemap
Date: 15 December 2021 12:28:39

Hi [redacted]

On media lines v route map monitoring numbers, the media lines pre-date the route map in this area. We were actively working on installing a further 77 monitors but that work will now need to be rapidly up-scaled to meet the commitment of around 1,000 monitors.

As a matter of priority, we will need to find a way to determine where we look to install these new monitors. We anticipate working with SEPA (and others) to look at amenity levels including sensitive waters (shellfish and bathing waters), where CSOs are close to public access areas and active water use and where modelling suggests that higher spills are occurring. When water companies were funded in PR14 to install CSO monitors, an amenity / spill frequency matrix was developed to drive monitoring priorities and we see something similar being used in Scotland.

The question on why there are more monitors in England than in Scotland is simply because, in response to an obvious water quality impact from point source discharges in England, plcs were funded specifically to install CSO monitors in their Price Review 2014. There was no similar commitment made to funding installation of monitors in Scotland and Scottish Water had to lobby very hard to include the modest programme if 77 new monitors in our IR18 programme. Monitors were not seen as a priority in Scotland because the role of point source discharges in impacting water quality is generally better understood here (ie only 24 CSOs included in RBMP3 for improvement).

We need to be careful about how we respond to questions about normal rainfall. We have a number of modern CSOs that are designed to overflow when flow reaches 4 x flow expected during dry weather flow (DWF). Many overflow settings are established based on robust water quality modelling work. These settings will mean that relatively frequent overflows might be expected from the system. We will have demonstrated that further reducing predicted spill frequency will not improve water quality and would result in significant additional costs. CSOs are not designed to spill during **significant rainfall** – without the benefit of comprehensive modelling work, the default setting for overflows is that they pass forward 'Formula A' flow (around 6 – 7 x DWF). This setting could be exceeded during many rainfall events.

In general though, as development has occurred and impermeable surfaces have increased (urban creep as gardens and driveways have been paved over and properties extended), the volume of rainfall entering the sewer system during rainfall events has been increasing. Rainfall intensity has itself been increasing and the result of these two factors is that CSOs are spilling more frequently than originally designed.

CSO spills are associated much more closely with rainfall events than they are with sewer blockages – There are 35,000 chokes in the sewer system each year but there will be many more than 35,000 CSO spills.

<u>CSO priorities agreed with SEPA</u>

- 24 WQ CSOs (RBMP3)
- 85 High Priority CSOs
- 117 Medium Priority CSOs
- 428 Lower Priority CSOs

[redacted]

SW Internal
General

From: [redacted]@gov.scot>
Sent: 15 December 2021 11:52
To: [redacted]@SCOTTISHWATER.CO.UK>
Cc: [redacted]@scottishwater.co.uk>; [redacted]@scottishwater.co.uk>; [redacted]@gov.scot>
Subject: FW: Urban waters routemap

EXTERNAL MAIL - Think Before You Click

Morning [redacted]

Hope you can answer a quick question for colleagues. The routemap commits to having some 1,000 CSOs monitored by 2024. However, in the recent Q&A document the lines don't quite add up to this amount. Could you clarify the numbers?

Also as noted below, [redacted] was looking to confirm the level of priority. Are [redacted]s numbers correct?

If you already have some standard lines to address the CSOs spilling during "normal" rainfall events that would also be helpful.

Apologies for another short timescale, but if you can provide by 4pm today that would be great.

Thanks again.

[redacted]
Policy Officer
Water Industry Team
Scottish Government
Office: [redacted]
Mobile: [redacted]

[redacted]

[redacted]

[redacted]

POLLUTION OF RIVERS AND LOCHS

27 Nov: Scotsman and BBC Scotland report on sewage related debris held in suspension in Firth of Forth washing up on local coastline following storms thought likely to contain a large proportion of wet wipes. An FOI request to Scottish Water suggests issue was identified in an internal SW report in 2018 with estimates of up to £25m improvement works to remedy, but no clear timetable for commencement

13 Nov: Herald reported internal SG emails issued under FoI, reflecting SG concerns at "unacceptably high" number of sewage leaks, and view that we are "way behind" England in monitoring/solving issues. Limited other media follow-up but LD Liam McArthur called for ministerial statement on "sewage leak crisis" and Lab's Monica Lennon urged SG to act as "our rivers are treated like sewers"

4 Nov: Cons' Jeremy Balfour asked oral PQ (S6O-00328)**:** *To ask the Scottish Government what action it is taking to support the ecological status of Scotland's lochs and rivers.*

22 Oct: Herald report (headlined 'Scotland's rivers and lochs in the worst state on record') stated incorrectly that official statistics show over 400 well known rivers and lochs are damaged by pollution and other problems.

Background:

- SEPA regulates and licences activities that may impact water environment to protect "good" ecological status.
- SEPA monitors and classifies all rivers and lochs as high, good, moderate, poor or bad ecological status and this is published on its website.
- 654 Combined Sewage Overflows out of a total of 3,614 in 50,000km of sewer network in Scotland have been identified by SEPA in 2019 as unsatisfactory. Scottish Water estimate it would cost £650m to get them to a satisfactory standard.
- Only 20 CSOs (3% of the 654 'unsatisfactory' CSOs, or 0.6% of all 3,614 CSOs) have the potential to impact on water quality. These are identified for improvement through River Basin Management Planning by 2027.
- The remaining 634 CSOs with unscreened intermittent discharges cause significant sewage related debris and are being prioritised for improvement (including 27 identified as impacting on the Firth of Forth)

Note: **Annex A** contains background note on recent debate and developments around water quality provisions for the Environment Bill in the UK Parliament.

TOP LINES

While the number of rivers and lochs rated as bad or poor due to pollution is at its lowest level ever in Scotland – with just 1% classified this way in 2019 – we take very seriously the issue of sewage spills where they occur.

- The Scottish Government is working with the environment regulator SEPA and Scottish Water on proposals for a new, phased programme of work to reduce sewage debris in the water environment.
- That work is over and above Scottish Water's planned improvements outlined in the draft River Basin Management Plans to help increase the proportion of Scotland's waterbodies at 'good' water quality from 87% to 92% by 2027.

[redacted]

POLLUTION OF RIVERS AND LOCHS

- Supported by record funding from this Government, Scottish Water has upgraded 250 combined sewer overflows over the last decade.
- Across a 50,000-kilometre sewer network, with 3,614 combined sewage overflows, some 654 overflows *(including 27 identified as impacting on the Firth of Forth)* were identified by SEPA in 2019 as 'unsatisfactory' and are being prioritised for improvement.
- Just 20 (or 3%) of those unsatisfactory overflows have been identified to have an impact on water quality and are being addressed through River Basin Management Plans with improvements to be in place by 2027.

[redacted]

BBC SCOTLAND AND THE SCOTSMAN REPORTING OF SEWAGE RELATED DEBRIS IN THE FIRTH OF FORTH

- The £25 million sum incorrectly quoted in the articles (actually £24m) is a high level estimate covering wastewater assets which have the highest risk of impacting on the Firth of Forth. Scottish Water have already started developing detailed and effective solutions for 27 assets that have been promoted as agreed with SEPA. All investments identified from this exercise will be subject to Scottish Water's investment appraisal process, expected to complete by 2023, which will determine when these will be delivered.
- We support efforts to promote behaviour change and stop consumers flushing products down their toilets that result in sewage related debris. These campaigns are run by Scottish Water and the Marine Conservation Society. In addition we have taken action on:
  - Plastic-stemmed cotton buds - we were the first administration in the UK to ban these products in 2019
  - Reusable sanitary products – in 2019 we launched the Trial Period campaign to promote reusable products, to help reduce marine litter, address social inequality and work towards a low carbon economy. Products were distributed for free and educational materials are still in use.
  - Wet wipes containing plastic – we are pressing the UK Government to consider a joint approach to banning these products and reporting to Ministers on progress which is currently hampered by the Internal Markets Act.

ROLE OF COMBINED SEWER OVERFLOWS (CSOs)

Combined Sewer Overflows (CSOs) are an integral part of Scotland's sewer networks, ensuring they don't back up and flood homes, streets and sewage works during periods of heavy rainfall.

- SEPA is required by law to identify unsatisfactory CSOs, primarily for water quality or sewage related debris impacts, in order to reduce those impacts on the water environment.
- Rather than permanent monitoring, which is the more common approach for water companies in England, Scottish Water carried out a Scotland-wide environmental study programme to assess the impacts of its assets on water quality during the 2015 to 2021 investment period costing around £40m.

[redacted]

POLLUTION OF RIVERS AND LOCHS

- This comprehensive Scottish Water environmental study programme contributed significantly to 654 out of 3,614 CSOs being identified as unsatisfactory by SEPA.
- SEPA regularly monitors the water environment to ensure it is not impacted by sewage spills. In 2019, it took around 12,000 monitoring samples across Scotland to safeguard the water quality of our rivers, lochs and coastal areas.
- SEPA licences and regulates 345 sewer networks operated by Scottish Water carrying out inspections on a rolling basis and in 2019 there were 7 out of 100 found not to be compliant with their licence conditions.
- Scottish Water continue to record levels of Environmental Pollution Incidents that are well below the target for the 2015-21 period of no more than 330 per year.
- SEPA regulation has reduced pollution events from the public sewage system by 60% over the last decade from 800 each year to fewer than 300.

RIVER AND LOCH POLLUTION LEVELS AT RECORD LOW

SEPA's monitoring and assessment of the water environment shows that the number of rivers and lochs rated as bad or poor due to pollution is at its lowest level ever. Just 1% were classified this way in 2019.

- 87% of Scotland's entire water environment, which includes coastal waters, estuaries, and groundwater as well as rivers and lochs, is assessed by SEPA as having a 'high' or 'good' classification for water quality – up from 82% six years ago.
- This upgrade in water quality reflects improvements made through Scottish Water's investment programme, and work by a range of stakeholders to improve rural land management practices to reduce diffuse pollution.
- It is incorrect to say – was reported in media (Herald) on 22 October – that Scotland's rivers and lochs are in "the worst state on record".
- The number of waterbodies awarded a 'bad' overall ecological status by SEPA halved over the most recent year reported – falling from 126 in 2018 to 64 in 2019.

CHANGES TO SEPA CLASSIFICATION OF THE WATER ENVIRONMENT

The classification of rivers and lochs is a complex exercise involving an assessment of many parameters, so if any member wants information about specific locations they can write to SEPA directly.

- SEPA takes seriously its responsibility for protecting rivers and lochs from pollution and other impacts, including abstractions and engineering/ construction activities.
- SEPA carries out routine annual monitoring to identify changes in water quality, water quantity and any engineering impacts on banks and beds of watercourses.
- In 2018 and 2019 SEPA undertook detailed surveys of river and loch morphology to gather additional information about the physical condition of water bodies.

- SEPA found more historic changes to the banks and beds of the country's rivers than had previously been estimated, although the assessment did not significantly alter the overall classification results. Specifically, it did not result in a downgrading of the overall classification of those individual water bodies.
- Overall SEPA classifies 90% of Scotland's water bodies as being in high or good physical condition.

FORTHCOMING RIVER BASIN MANAGEMENT PLANS

Scotland's third River Basin Management Plans are due to be published by SEPA at the end of this year, setting out our aims and objectives to improve the water environment to good ecological status by 2027.

- SEPA has recently completed a public consultation on the third Scotland River Basin Management Plans, which will include feedback from 52 stakeholders and the public across Scotland.
- The Plans will shortly come forward to Ministers for approval before publication by the end of this year.
- The Plans will include a wide range of measures which aim to ensure that 92% of Scotland's water environment has a classification of 'good' or better water quality by 2027.

FLOODING

The Scottish Government recognises the devastation flooding can bring to householders and communities, and that such incidents are becoming more frequent due to an increase in severe wet weather events.

- The complex nature of flooding means there are many agencies responsible for different aspects of the sewerage and drainage systems in communities, so a partnership approach is key to reducing the risk of flooding.
- As a 'responsible authority' under the Flood Risk Management Scotland Act 2009, Scottish Water works with local authorities to understand and manage surface water flood risks across the country.
- Scottish Water is fully committed to taking steps to reduce the risk of sewer flooding for those properties across Scotland that are at highest risk of repeat flooding.

    - [redacted]

POLLUTION OF RIVERS AND LOCHS

ANNEX A
Background note on UK Environment Bill: Storm overflow amendments

There has been continued media interest over the summer about the impact on the environment from sewage spills and associated sewage debris in rivers across the UK.

Storm overflows (combined sewer overflows) are an integral part of most of the sewer networks in England as well as Scotland, ensuring sewers don't back up and flood homes, streets and sewage works during periods of heavy rainfall. The visibility of large amounts of sewage debris as a result of such spills has attracted public interest across the UK.

Environment Bill Amendments

Earlier opposition amendments to the Environment Bill at Westminster had sought to press the UK Government to commit to removing all storm overflows and, hence, preventing all intermittent untreated sewage discharges to rivers.

The UK Government rejected this proposed amendment as both impractical and prohibitively costly given the existing combined sewage and storm water infrastructure with widely varying estimates of £100-500bn, also citing increased flood risk to homes and businesses should all storm overflows be removed.

Instead the UK Government announced on 26 October that the Environment Bill will be further strengthened with an amendment that will see a duty enshrined in law to ensure water companies secure a progressive reduction in the adverse impacts of discharges from storm overflows. The amendment underpins the expectation that the regulator OFWAT will ensure funding is available to English Water companies in future price control periods to significantly both reduce the number of storm overflows and the impact of discharges from them. The UK Environment Bill has now passed into law with a watered down compromise amendment sorting out these storm overflows at a slower pace.

The above matter regarding the regulation of sewage overflows in England has been widely conflated with a supply chain issue for sewage treatment chemicals. Separately, the Environment Agency issued a Regulatory Position Statement (RPS) in September that said that, under certain conditions, they would not take regulatory action for breeches of licences leading to discharge of sewage that had not been fully treated as a result of supply chain issues for treatment chemicals. Operators are required to get written permission in advance to take advantage of this RPS. This RPS is still in force, and is planned to be in force for the rest of 2021. We are not aware of any information about how many times operators have taken advantage of this RPS.

POLLUTION OF RIVERS AND LOCHS

Scotland's position

In Scotland Ministers set Scottish Water's objectives and priorities and the independent economic regulators [Water Industry Commission for Scotland] WICS ensures necessary funding is in place to deliver them. In the current 2021-2027 regulatory period Ministers have already directed Scottish Water to take measures to further improve the water quality of Scotland's, rivers, lochs and bathing waters, including improving storm overflows to reduce the impact from their discharges.

There are 3,614 CSOs in Scotland. Over 250 unsatisfactory sewer overflows have been upgraded over the past decade. SEPA has, however, identified a further 654 unsatisfactory sewer overflows. It is estimated that the overall cost of improving all these unsatisfactory sewer overflows would be around £650m.

Scottish Water has currently committed to addressing 22 unsatisfactory overflows at a cost of £11m to resolve water quality issues under River Basin Management Planning.

In July, Ms McAllan's asked for further action on sewage spills. Senior officials continue to press SEPA and Scottish Water to bring forward proposals for a phased programme of work, setting out the associated risks and implications of each, for Ministers' consideration. Further advice will be brought forward to Ministers in December.

[redacted]

From: [redacted]
To: Cabinet Secretary for Net Zero, Energy and Transport; Cabinet Secretary for Rural Affairs and Islands; Minister for Environment, Biodiversity & Land reform
Cc: DG Economy; Director of Environment & Forestry; Director of Marine Scotland Mailbox; Dobson L (Leanne); Palmer MR (Mike); [redacted] Rathjen J (Jon); [redacted] Communications Net Zero & Rural Affairs; [redacted] MS Communications; [redacted]
Subject: Submission - Single-use wet wipes containing plastic
Date: 16 August 2021 10:14:20
Attachments: Routine Submission to the Cabinet Secretary for Net Zero Energy and Transport - Wet Wipes - 16 August 2021.doc

---

Good Morning

P/S Cabinet Secretary for Net Zero, Energy and Transport

Please see the attached routine submission - to note the strong support for legislative action to ban wet wipes containing plastic, and agree next steps.

Kind Regards

[redacted]

[redacted] | Marine Scotland | The Scottish Government | Mob [redacted]

If you receive this email late at night, early in the morning, or at the weekend - it means I am working flexibly, with no expectation of a response outwith office hours.

[redacted]
Marine Scotland – Marine Conservation
16 August 2021

Cabinet Secretary for Net Zero, Energy and Transport

SINGLE-USE WET WIPES CONTAINING PLASTIC

Purpose

1. To note the strong support for legislative action to ban wet wipes containing plastic, and agree next steps.

Priority

2. Routine.

Background

Marine Litter

3. Marine Litter is a global challenge, caused by a range of materials, but the most common of these is plastic. We know that marine plastics have a negative impact on our marine environment, our economy and threaten human health.

4. Beach litter data records Sewage Related Debris (SRD) which includes plastic products disposed of by flushing down toilets that are not captured by sewage treatment facilities, or by screens on combined sewer overflow (CSO) systems which discharge during periods of high rainfall. The data for Scotland shows that we have significantly higher levels of SRD than the rest of the UK. Great British Beach Clean reports since 2016 have recorded the number of SRD items found in 100 metre surveys, and Scotland is the only administration to exceed the UK average each year, by over 63% in 2016 and 95% in 2020.

Blockages to sewer systems

5. The largest single component material found in chokes is wet wipes, of which the vast majority will contain plastic. In light of recent publicity about CSO discharges and calls for more action to tackle the problem, the Minister for Environment, Biodiversity and Land Reform has separately noted her concerns about the role of SRD in blockages and as an aesthetic issue of concern to the public. Officials in the DECC Water Industry Team and ENFOR Environmental Quality Unit are preparing joint advice on the wider issue responding to the Minister's concerns about the need to do, and be seen to do, more around these issues.

Actions taken to reduce wet-wipe pollution

6. Scottish Government has encouraged business behaviour change with support of the development and promotion of the WaterUK 'Fine to Flush' standard. The standard

has been championed by all of the UK water organisations, and requires the product design to exclude plastic as an ingredient and enable full disintegration during the normal flushing process.

7. Wet wipes can be made without plastic. Large manufacturers have proven this is commercially viable, with Andrex (owned by Kimberly-Clark) making this switch and meeting the 'Fine to Flush' standard.

8. Scottish Government has also encouraged public behaviour change with support of campaigns run by Marine Litter Strategy Steering Group members Scottish Water and the Marine Conservation Society; 'Keep the Cycle Running' and 'The 3 Ps'. Each campaign has had a clear message of not abusing our sewage systems.

9. Wet wipes containing plastics were included in the public consultation on proposed actions to restrict to market single-use plastic products which closed 4 January 2021.

Results of actions taken

10. Uptake of the 'Fine to Flush' standard has been limited, with major retailers continuing to stock wet wipes containing plastic, including their own brand products. In addition, demand for anti-bacterial wipes has increased due to Covid-19.

11. A 2020 review of high-street retailers concluded that Aldi and Sainsbury's were the only retailers to have their own brands certified as Fine to Flush. Four retailers committed to meeting the standard by June 2021, however these changes have not yet been confirmed. Four companies have made no commitments or stated they have no plans to make changes; these include Asda, Lidl, Wilko and Superdrug.

12. Wet wipes are one of the items used as a Scottish Beach Litter Performance Indicator by Marine Scotland. The published 2019 report showed the number of wet wipes found on our beaches in the Clyde, Forth and East of Scotland was increasing at a faster rate than any other single item. More recent data collection and analysis has been hampered by the pandemic.

13. Analysis of the responses to the single-use plastic product public consultation response, which closed in January 2021, showed widespread support for market restrictions of wet-wipes containing plastic, with 94% of respondents supporting future Government action.

Update

14. Scottish Water has approached policy colleagues to press for action on this issue, following a public call for wider action from Welsh Water. A publicity campaign planned for later this year by Scottish Water will incorporate the 'bag it and bin it' message in respect of non-fit-to-flush wipes alongside traditional messaging on what to flush.

15. The EU Single-Use Plastics Directive supports better labelling of these products, however given the failure of behaviour change campaigns to stop the disposal of these items down toilets, it is doubted that labelling will have a significant impact.

Proposed action

16. It is concluded that a ban on the manufacturing and sale of wet wipes containing plastic is the most practical solution to this problem, using secondary legislation with the powers given under the Environmental Protection Act 1990. However, with the restrictions introduced under the Internal Market Act 2020, a joint approach across the UK is the most effective means of introducing a ban, with an expectation that each administration will develop its own legislation simultaneously. This will give clarity and a level playing field to manufacturing and retail businesses working across administrative boundaries and ensure that legislation will be effective and enforceable.

17. Marine Policy colleagues have been working with counterparts in DEFRA and the other Devolved Administrations to support a joint action, as was taken previously to tackle rinse-off personal care products containing plastic micro-beads.

18. DEFRA colleagues report that their Ministers "are keen to pursue a joint working approach for tackling wet wipes with DAs and we are currently working through high level options." They have not been able to share if those options include legislating for a ban.

Implications

19. Without UK-wide support, successful implementation of any proposed regulations will be limited due to the Internal Market Act.

20. There is considerable public expectation and water sector support for legislative development. Any lack of action by the Scottish Government will be viewed poorly and will contribute to further marine plastic pollution. In addition, lack of action will enable the persistence of sewer blockages which will likely lead to further negative public reaction and adverse publicity.

21. Development of legislation would come at a time when policy teams and SGLD have limited available resource and there would be an associated need to phase the work over time following any announcement. We would work to manage expectations accordingly with communications colleagues.

Next Steps

22. Scottish Government will support the refreshed Scottish Water awareness raising campaign through social media. There may be a potential link with increased flooding risk messaging used as part of wider climate change COP 26 communications.

23. Marine Scotland will continue to push DEFRA for a steer as to the UK Government's intentions and will keep all relevant policy areas and Ministers informed. If Ministers agree, we propose to promote legislation to apply a UK-wide ban in our ongoing dialogue with DEFRA and the other DAs.

Recommendation

[redacted]

[redacted]
Marine Scotland – Marine Conservation
[redacted] 16 August 2021

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
Cabinet Secretary for Net Zero, Energy and Tourism	X				
Cabinet Secretary Rural Affairs & Islands			X		
Minister for Environment, Biodiversity and Land Reform		X			

DG Economy
Director Environment and Forestry
Director Marine Scotland
Director Energy and Climate Change
Leanne Dobson, Special Advisor
Deputy Director – Marine Scotland
[redacted]– Marine Scotland
[redacted]– ENFOR
[redacted]– ENFOR
Jon Rathjen – Water Industry Team
[redacted]– Water Industry Team
[redacted]– Water Industry Team
[redacted]– Env Quality Unit
[redacted]- ENFOR
Communications Net Zero and Rural Affairs
[redacted], Communications
Marine Scotland Communications
[redacted]– UK relations

Enclosure 56 - ***Daily Record Sewage Spill article briefing***

Please find below for Ms McAllan's attention a short brief addressing recent articles in the press about sewage spills. Also attached, our current sewage spillages FMQ which was updated yesterday.

Kind regards,

[redacted]

[redacted]
Scottish Government

Tel: [redacted] | Email: [redacted]

Ms McAllan should note yesterday's Daily Record article Scottish ministers worst-hit by sewage dumping nightmare in their constituencies revealed - Daily Record, "*First Minister Humza Yousaf topped the 'revolting' list with his Pollok constituency facing 8.3million cubic metres of sewage discharged into waterways last year"* after the Scottish Liberal Democrats compiled the list from published Scottish Water data. Also covered in the Daily Express (Scotland) yesterday.

It also lists Ms McAllan in the table from the article, below.

We have drafted the following lines for the First Minister to take in the sewage spillages FMQ brief (attached for information).

[redacted]

Scottish Water's published document describes Settled Storm Sewage Overflow (SSSO) as intermittent discharges that receive settlement or primary treatment before discharge to the environment. Settlement can be in primary tanks or storm tanks. In comparison it describes combined sewer overflows (CSO) as located anywhere on the sewerage network, at a sewage pumping station or on an inlet sewer to the Waste Water Treatment Works (WwTW). Flows in excess of the licence pass forward flow will discharge to the environment and are not treated.

Scottish Water reported 195 spills in Ms McAllan's Clydesdale constituency in 2022 – all from Biggar Wastewater Treatment Works (WwTWs). Only 11 of the spill discharges (6%) were from Biggar WwTWs CSO, with the remainder coming from the SSSO and having received settlement treatment. We therefore suggest the following line to take in relation to the 195 spills figure in the Daily Record article, if required.

[redacted]

Extract from Daily Record:

Enclosure 57 – FMQ Brief – Sewage Briefing

Morning [redcated],

Please find attached the latest version.

Thanks,

[redacted]
Scottish Government
[redacted]

Enclosure 57.1 – FMQ Brief Sewage

25 Jun STV reports that 'sewage dumping' is going undetected in nine Scottish council areas.
30 May Daily Record reports a list of Scottish ministers whose constituencies are worst-hit by sewage discharge. Your constituency was at the top of this list with Pollok reported as discharging 8.3 million cubic metres of sewage into waterways last year (relating to outflow from the Shieldhall treatment works).
24 May Scotsman report suggesting that a 'crisis' of sewage in rivers and at beaches was entirely predictable, due to overflowing sewers made part of the system and climate change ignored.
22 May Daily Mail reports Scottish Water boss Simon Parsons as saying "I'd think twice about swimming in the sea after heavy rainfall due to sewage" – this misrepresents a BBC interview where Simon Parsons indicated he would follow SEPA's guidance before swimming.
19 May BBC, Herald, The Times and Scottish Daily Express report on Marine Conservation Society call for greater monitoring of sewage spills in Scotland and spill reduction targets to be set by SG.
18 May Alex Cole-Hamilton submitted a motion (S6M-08949) calling on Parliament to note Scottish Water's 14k sewage spill figures for 2022, for every sewage dump to be recorded and published, and for the upgrading of Scotland's ageing sewage system.
16 May Water UK announce creation of an environmental info. hub and bringing forward a storm overflow plan this summer with fast-tracking £10bn of funding [does not apply to Scotland – action we are taking is outlined in note below].

TOP LINES

SCOTLAND'S WATER QUALITY

87% of Scotland's entire water environment is assessed by SEPA as having a 'high' or 'good' classification for water quality – up from 82% six years ago.

- SEPA reports that 66% of Scotland's water environment meets 'good' ecological status overall.
- The upgrade in water quality reflects improvements made through Scottish Water's investment programme, and work by a range of stakeholders to improve rural land management practices to reduce diffuse pollution.
- SEPA's data indicates that 56% of rivers are in overall good condition, and for water quality the figure is much higher at 85%.

We take the issue of sewage pollution incidents very seriously. Scottish Water's Improving Urban Waters Route Map update demonstrates the work underway to reduce spills.

- 47% of Scottish Water's total reported sewage discharge events in 2022 are treated to protect the environment. *[settled storm sewage overflows receive settlement or primary treatment before discharge]*.
- Indeed, as published by Scottish Water, the reportable discharges in my constituency (127) are all from a settled storm sewage overflow at Shieldhall Wastewater Treatment Works, which is treated to protect Clyde estuary's water quality.

- It is not correct to say that 8.3 million cubic metres of sewage was discharged; less than 1% of these spills is sewage and the rest is largely rain water. These overflows represent huge volumes of rainwater being safely transferred away from homes and businesses to prevent flooding during times of excessive rainfall.

The Improving Urban Waters Route Map sets out a programme of continued action to reduce wastewater pollution and sewage litter over the coming decade backed by investment of up to half a billion pounds

- The first annual update to the route map was published in December 2022.
- 54 projects have already been initiated to address issues caused by high priority CSO discharges by 2027 in line with Scottish Water's capital investment process.
- Priority locations have been identified for 1,000 new spill monitors, with installation programmed over 2023 and 2024 at a value of £70m. The methodology for deciding these locations is on the Scottish Water website.
- Spill data which is reported to SEPA has already been published on Scottish Water's website.

Scottish Water is in the process of developing detailed solutions for 104 high priority unsatisfactory Combined Sewer Overflows (CSOs) due to their impact on water quality or sewage related debris.

- Plans are already in place to address 24 high priority unsatisfactory Combined Sewer Overflows (CSOs) by 2027 as set out in the third River Basin Management Plan.
- Scottish Water is also developing solutions for 39 waste water treatment works which are included as water quality improvement measures.

OVERFLOW MONITORING

Rather than permanent monitoring, which is the common approach for water companies in England, Scottish Water carried out a more comprehensive Scotland-wide environmental study programme to assess the impacts of its assets on water quality during the 2015 to 2021 investment period costing £40m

- English water companies have not yet undertaken the detailed environmental assessments that have been completed in Scotland.
- SEPA regularly monitors the water environment to ensure it is not impacted by sewage spills.
- In 2019, it took around 19,000 monitoring samples across Scotland to safeguard the water quality of our rivers, lochs and coastal areas.
- SEPA licences and regulates 345 sewer networks operated by Scottish Water carrying out inspections on a rolling basis.
- In 2019 there were 7 out of 100 found not to be compliant with their licence conditions. SEPA took action to ensure compliance was achieved.
- Scottish Water's Improving Urban Waters Routemap outlines the significant investment underway to increase data monitors on our overflows by the end of 2024. As part of this work, data capture and availability is being reviewed to allow further enhancements.
- Scottish Water will publish information on the number of days for which monitors are unavailable to support the reporting of 2023 overflow events in January 2024.
- Comprehensive monitoring of water bodies is undertaken by SEPA to assess water quality, water resources, physical condition and aquatic ecology which are combined to produce an overall classification of the water environment.

Commented [BM1]: As above -s imilarly can we start with something more current e.g. We are making progress with our Improving Urban Waters Route Map. The most recent update showed XYZ

- Increasing the monitoring of sewage outflow pipes would not change the classification of the water environment under the current system by SEPA, Scotland's independent environmental regulator.

ROLE OF COMBINED SEWER OVERFLOWS (CSOs)

Combined Sewer Overflows (CSOs) are an integral part of Scotland's sewer networks, ensuring sewers don't back up and flood homes, streets and sewage works during periods of heavy rainfall.

- It's not accurate to call CSO spills from the waste water network sewage spills. What is spilled is largely rain water as the toilet sewage element is less than 1% of the total volume.
- Scottish Water has reduced environmental pollution incidents by 60% over the last decade from 800 each year to fewer than 300, in spite of increasingly challenging weather patterns.
- Scottish Water's national campaign 'Nature Calls' raises awareness of sewer blockages caused by inappropriately-flushed items such as wet wipes containing plastic and other personal hygiene products.
- SEPA is required by law to identify unsatisfactory CSOs, primarily for water quality or sewage related debris impacts, in order to reduce those impacts on the water environment.
- Scottish Government recognises the multiple benefits that blue and green infrastructure provides to support climate and water resilience, including combined sewer overflow spill reduction, and published the Water Resilient Places Policy Framework in February 2021.
- Scottish Water, SEPA and the local authorities support the framework and we will continue to see increased use of blue and green infrastructure in future as this becomes the primary method for managing surface water.

BATHING WATERS

98% of Scotland's bathing waters currently achieve the bathing water quality standards with more being rated excellent than ever before.

- Scottish bathing water season started on 1st June with two new designations and more bathing waters rated excellent than ever before. This brings the total number of Bathing Waters in Scotland to 89.
- In line with globally recognised guidance, SEPA advises against bathing for up to 48 hours after heavy rainfall due to the increased risk of poor water quality.
- SEPA's monitoring of Bathing Waters shows water quality can be impacted by a range of bacterial sources following heavy rain and not just sewage spills including agricultural land runoff, urban runoff, and dog and seagull faeces.
- There are no sewage spills into Peterhead Lido bathing water and SEPA classifies the water quality there as excellent.
- Portobello beach designated bathing waters currently meet the stringent bathing water quality standards set by Europe and recommended by the World Health Organisation.
- Scottish Ministers designate bathing waters where a large number of people bathe considering past trends, facilities and infrastructure provided and promotion of bathing.
- The interpretation of a large number of bathers of around 150 daily bathers in Scotland is in line with those across Europe where the maximum figure used is 300 daily bathers.

WILD SWIMMING

Rivers and other open water locations that are not designated as bathing waters are managed for the purpose of protecting fish and wildlife.

- Water in these locations may contain levels of pathogens which are harmless to wildlife, but would not meet designated bathing waters standards.
- The UK Health Security Agency advises that anyone can become unwell from swimming in any open water, as there will always be micro-organisms present.

WATER OF LEITH

Scottish Water has confirmed that 24 Unsatisfactory Combined Sewer Overflows (CSOs) that discharge into the Water of Leith have been assessed as High Priority by Scottish Water and are in the solution development phase.

- The former Minister for Environment and Land Reform wrote to local MSP, Ben McPherson responding to SaveOurShore Leith's concerns.

RIVER ALMOND

Scottish Water is planning to invest up to £50m to deliver water quality improvements to the River Almond by 2027 to meet Scottish Government's River Basin Management Planning objectives.

FUNDING

Scottish Water is performing well as a publicly owned corporation.

- Evidence of its performance is clearly demonstrated by the fact that Scottish Water is matching the levels of service provided by the companies in England and Wales whilst ensuring that the average household charge in Scotland is lower.
- In 2023-24, the average charge is expected to be £411 compared to £448 in England and Wales.
- Scottish Water invested £3.7bn to deliver Ministers' objectives across the 2015-21 period.
- £799m was invested in 2021-22 – upgrading essential treatment works, water supply and sewer networks.

REMUNERATION

Scottish Water is subject to independent economic regulation. No other body accountable to the Scottish Parliament is subject to such a transparent and demanding improvement regime.

- The remuneration packages of Scottish Water employees are a matter for Scottish Water – in line with the Government's public sector pay policy.
- That policy makes clear that all public sector bodies are expected to demonstrate pay restraint for the most senior workers.
- The current remuneration package is significantly smaller than that paid by comparable utilities, both in terms of salary and bonus incentives.
- Bonuses are only paid in the event of outperformance of demanding targets that are verified by independent regulators.

Enclosure 58 – Media enquiry – sewage releases in environmentally sensitive areas response

Hi [redacted],

Ms McAllan is content.

Thanks,
[Redacted]

From: [redacted] <[redacted]@gov.scot>
Sent: 15 May 2023 16:04
To: Cabinet Secretary for Net Zero & Just Transition <CabSecNZJT@gov.scot>
Cc: [redacted] <[redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>; Jon Rathjen <Jon.Rathjen@gov.scot>; <[redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>; Deputy Director Environmental Quality and Resilience <DDEQR@gov.scot>; [redacted] <[redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>
Subject: Media queries (Record/Global) - sewage releases in environmentally sensitive areas

Hi Private Office

We've received queries from the Daily Record and from Global following up a press release issued by the Liberal Democrats over the weekend - and which has already been covered in the i – about sewage releases from combined sewer overflows, this time in sites with special environmental protections.

Proposed lines below are taken from officials' most recently updated rebuttals that the Cabinet Secretary has already seen, with minor adaptations. SpAds have seen.

As per the i reporting, Scottish Water have already issued a response to this but pitched at a more detailed/operational level (at bottom of email). Grateful if you could let us know if the Cabinet Secretary is happy for us to issue this line, which is pitched at more of an overarching level, to complement SW response.

Scottish Government spokesperson said:

- The Scottish Government takes sewage pollution incidents very seriously and works closely with the Scottish Environment Protection Agency (SEPA) and Scottish Water to reduce its impacts on the water environment.

- 87% of Scotland's entire water environment is assessed by SEPA as having a 'high' or 'good' classification for water quality – up from 82% six years ago.

- Scotland's River Basin Management Plan objectives aim to improve water quality to 92% of waterbodies at 'high' or 'good' classification by 2027 and this will benefit wildlife.

- SEPA reports that 66% of Scotland's water environment meets 'good' ecological status, whereas Environment Agency figures for England are only 16%.

- This upgrade in water quality reflects improvements made through Scottish Water's investment programme, and work by a range of stakeholders to improve rural land management practices to reduce diffuse pollution.

- Increasing the monitoring of sewage outflow pipes would not change the classification of the water environment by SEPA. Monitoring of water bodies is already undertaken to assess water quality, water resources, physical condition and ecology which are combined to produce an overall classification of the water environment.

- Detailed information on the evidence used to derive the water environment classification can be found in the Water Environment Hub on SEPA's webpage.

Press release

Scot Lib Dems reveal sewage is being dumped into a host of environmental protection sites

Scottish Liberal Democrat leader Alex Cole-Hamilton has today questioned why sewage is regularly being discharged into sites with special environmental protections in place and called on the First Minister to intervene.

Analysis of freedom of information requests submitted by Scottish Liberal Democrats suggests that at least 11 Sites of Special Scientific interest (SSSI), 4 Wetlands of International Importance (RAMSAR) and 6 Special Protection Areas (SPA) have sewage overflowing into them from at least 18 sewage outflow points.

The sites affected include the Inner Clyde, Hamilton Low Parks, Calder Glen, Endrick Water, Upper Solway Flats and Marshes and the Solway Firth, Longman and Castle Stuart Bays, Sands of Forvie and Ythan Estuary, Firth of Forth, Nigg Bay, Rosehearty to Fraserburgh Coast, the River Tweed, the Inner Moray Firth, North Orkney and Shetland's East Mainland Coast.

In total 7.6 million cubic metres of sewage was discharged at these sites alone in 2022, the equivalent of more than 3,000 Olympic swimming pools.

Mr Cole-Hamilton said:

“Scotland is world famous for its beautiful outdoors and its fascinating biodiversity, but these figures suggest that at a host of scientifically significant sites such as rivers and lakes, sewage is discharged into the natural environment.

“What’s more, this is almost certainly a significant understatement, because less than 1 in 20 discharge pipes are actually monitored.

“The First Minister has made a personal commitment to look into the health of Scotland’s waterways.

“The first step will be to get a handle on the scale of the problem. Humza Yousaf needs to give a commitment that Scottish Water will record and publish details on every sewage dump, not just the limited numbers that are currently recorded.”

ENDS

Notes to editors:

There are 3,614 overflows in Scotland’s 31,000-mile sewer network, but only 144 (4%) are currently monitored. This in contrast to England, which has 14,470 overflows of which 12,700 are monitored (89%).

A list of site where discharges have taken place, along with details of the environmental protections in place can be found here.

Scottish Liberal Democrats are calling for the government to:

- Record and publish every sewage dump.
- Introduce the first legally-binding targets for reducing sewage dumps.
- Upgrade Scotland's Victorian sewage network.
- Ban dumping on Scotland's best beaches.
- Speed up protection of bathing waters.

SW response

A Scottish Water spokesperson said: “We recognise the need to protect Scotland’s water environment and ensure it remains a national asset and resource we can all be proud of – we are fully committed to contributing to that.

“We’re spending an additional £500m currently on top of £1.1bn already invested over the past decade in improving how our waste water assets work. Removing overflows and rebuilding the system would cost £13bn.

“The independent environmental regulator SEPA currently classifies all of Scotland’s coastal waterbodies at good or better condition for water quality.

“The public drainage network and waste water treatment works serve homes and businesses across Scotland. It is designed to meet specific standards aligned to the designation of the receiving water (shellfish water, bathing water, Water Framework Directive water quality standards etc). Licences are set on this basis.

“Overflows operate during storm events, allowable under licence requirements, and flows include significant amounts of rainfall and surface water. It is important to appreciate we are not ‘dumping’ sewage.

“The data highlights examples of storm overflows occurring when there was major heavy rainfall events in parts of Scotland – for example, December 30 2022 when there was widespread flooding. These overflows represent huge volumes of rainwater being safely transferred away from homes and businesses and back safely to the environment to minimise the impacts of extreme weather.”

Notes

Scottish Water has already improved almost 300 unsatisfactory overflows and more than 100 waste water treatment works in priority areas over the past decade at a cost of some £1.1 billion.

How CSOs operate in the network is explained here - 170822 Understanding Waste Water - Scottish Water

We have committed to being open and transparent about this issue – including the proactive publication of overflow data.

We remain firmly on track to deliver on our commitment set out in the Improving Urban Waters Routemap (Urban Waters Routemap - Scottish Water) to install 1000 new monitors and have three intelligent waste water network programmes in place by the end of 2024.

Our Improving Urban Waters Routemap, which supports the national River Basin Management objectives (92% good water quality by 2027), commits us to further investment of up to £500m.

That investment will: improve water quality; increase monitoring coverage at overflow locations which discharge into the highest priority waters; significantly reduce Sewage Related Debris (SRD) such as wet wipes, sanitary products and other items; and reduce sewer network spills.

Other causes of overflows are often very preventable. We have been campaigning for years to highlight the impacts of flushing inappropriate items down the toilet and try and change behaviours. Our Nature Calls campaign included TV, Radio and Social media advertising highlighting the issue and asking the public to 'bin the wipes'. We have also successfully campaigned for a ban on the sale of wet wipes containing plastic in Scotland and we are delighted that this now looks like it has political approval to enforce this change – more info here: Scottish Water celebrates UK plastic wipes ban - Scottish Water

While we recognise that monitoring is important, we have focused on improving the performance of CSOs which have the biggest impact on the environment. Over the past year, Scottish Water has invested significant time in developing a prioritisation approach for monitoring locations, based on amenity levels and predicted spill frequencies, agreeing this with SEPA. This has been published on Scottish Water's website at: Prioritisation of Sewer Overflows in Scotland - Scottish Water

Our programme of investment and improvement builds on progress made over many years to further enhance the quality of Scotland's water environment, which remains high - 87% of the country's water environment is in good or better condition.

[redacted[| Communications: News (Net Zero & Rural Affairs)
Scottish Government, St Andrew's House
[redacted]

Enclosure 59 – Note to First Minister (withheld)

Enclosure 60 - FMQ Brief Sewage Spills (April 2021)

25 Apr Scot Lib Dems on Twitter: *"Across Scotland there were 14,008 disgusting sewage overflows like this. The Scottish Government are neglecting our rivers and waterways. The new Environment Secretary must ensure monitoring of is ramped up so we get a true picture of the scale of this disgusting problem."*
25 Apr Scot Lib Dems on Twitter: "*Stop Sewage Dumping campaign petition: Sewage was released into our rivers and waterways more than 14,000 times in Scotland last year".*
8 Apr: Record highlights that Feargal Sharkey demands answers after stretch of Scotland's most famous salmon fishing river deteriorates. A popular 20-mile section of the world-renowned River Spey has been classed as in 'poor ecological condition' since 2019.
5 Apr: The Ferret highlights a green charity has complained to Environmental Standards Scotland about the Scottish Government's allegedly "unlawful" approach to protecting bathing waters from sewage leaks, claiming it is the weakest in the UK.
5 Apr: STV News highlights Sewage released into Scottish waters more than 14,000 times last year.
30 Mar: Record highlight authorities in Scotland only required to monitor 4% of overflows, in comparison to 89% requirement in England. Highlight SEPA stats showing 10799 overspill events in Scotland in 2021, but volume not recorded for 5219 of these. Alex Cole Hamilton: *"There is every reason to believe the current volumes are a significant underestimate. The next Environment Secretary must listen to .. calls.. for targets to be set to reduce discharges, for enhanced monitoring to be backed up with transparent reporting, and for the acceleration of measures to upgrade sewage systems and tackle overflows".*

We take very seriously the issue of sewage spills, and the former Minister for Environment and Land Reform's statement in Parliament in December 2021 set out comprehensive plans to reduce sewage spills over the coming decade.

- Scottish Water's Improving Urban Waters Route Map (December 2021), sets out a programme of continued action to reduce wastewater pollution and sewage litter over the coming decade backed by investment of half a billion pounds.
- The first annual update to the route map was published in December 2022:
    - 54 projects have been initiated to develop solutions and support delivery of all high priority CSO discharges by 2027.
    - These projects will develop over the next two years, in line with Scottish Water's capital investment process.
    - priority locations have been identified for the 1,000 spill monitors, with installation programmed over 2023 and 2024.

- Spill data which is reported to SEPA has already been published on Scottish Water's website.

66% of Scotland's overall water environment meets 'good' ecological status.

- To meet its commitment to invest up to £70m to install 1,000 new monitors, including those at bathing waters, Scottish Water has prioritised where these will be installed and has published this methodology on its website.
- Installation is programmed over 2023 and 2024 and spill information will be provided online to the public by December 2024.

Scottish Water is in the process of developing detailed solutions for 104 high priority unsatisfactory Combined Sewer Overflows (CSOs) due to their impact on water quality or sewage related debris.

- 24 high priority unsatisfactory Combined Sewer Overflows (CSOs) are included as water quality improvement measures in the third River Basin Management Plans.
- Scottish Water is also developing solutions for 39 waste water treatment works which are included as water quality improvement measures.

SCOTLAND'S WATER QUALITY

87% of Scotland's entire water environment is assessed by SEPA as having a 'high' or 'good' classification for water quality – up from 82% six years ago.

- This upgrade in water quality reflects improvements made through Scottish Water's investment programme, and work by a range of stakeholders to improve rural land management practices to reduce diffuse pollution.
- SEPA reports that 66% of Scotland's water environment meets 'good' ecological status, whereas, Environment Agency figures for England are only 16%.
- SEPA's data indicates that 56% of rivers are in overall good condition, and for water quality the figure is much higher at 85%.

ROLE OF COMBINED SEWER OVERFLOWS (CSOs)

Combined Sewer Overflows (CSOs) are an integral part of Scotland's sewer networks, ensuring sewers don't back up and flood homes, streets and sewage works during periods of heavy rainfall.

- Scottish Water has reduced environmental pollution incidents by 60% over the last decade from 800 each year to fewer than 300, in spite of increasingly challenging weather patterns.
- SEPA is required by law to identify unsatisfactory CSOs, primarily for water quality or sewage related debris impacts, in order to reduce those impacts on the water environment.
- A monitor only indicates whether an asset is spilling; it does not confirm if there is an environmental impact.

OVERFLOW MONITORING

Rather than permanent monitoring, which is the common approach for water companies in England, Scottish Water carried out a more comprehensive Scotland-wide environmental study programme to assess the impacts of its assets on water quality during the 2015 to 2021 investment period costing £40m.

- This comprehensive Scottish Water environmental study programme contributed significantly to 654 out of 3,614 CSOs being identified as unsatisfactory by SEPA.
- SEPA regularly monitors the water environment to ensure it is not impacted by sewage spills.

- In 2019, it took around 19,000 monitoring samples across Scotland to safeguard the water quality of our rivers, lochs and coastal areas.
- SEPA licences and regulates 345 sewer networks operated by Scottish Water carrying out inspections on a rolling basis.
- In 2019 there were 7 out of 100 found not to be compliant with their licence conditions. SEPA took action to ensure compliance was achieved.

BATHING WATERS

Scottish Ministers designate bathing waters where a large number of people bathe considering past trends, facilities and infrastructure provided and promotion of bathing. Two new bathing waters were designated in 2022 increasing the number of bathing waters across Scotland to 87 in total.

- 98% of Scotland's bathing waters currently achieve the bathing water quality standards with more being rated excellent than ever before.
- The interpretation of a large number of bathers of around 150 daily bathers in Scotland is in line with those across Europe where the maximum figure used is 300 daily bathers.
- The River Almond at Almondell, West Lothian has been the only bathing waters application in recent years that has been unsuccessful in meeting the large number of bathers criteria.
- In 2022, the former Minister for Environment and Land Reform responded in writing to local River Almond stakeholders and the Environment Rights Centre for Scotland, who represented them, explaining why the River Almond was not designated as a Bathing Water and the bathing waters designation process.

RIVER SPEY

A section of the River Spey was reclassified from moderate to poor for its physical condition in 2019 following a detailed field assessment by SEPA rather than any changes to the river. This did not relate to water quality as this section of river is currently classified at high status.

- Overall, 93% of the River Spey catchment is classified by SEPA as good or better for its physical condition and for water quality it's at 97%.

WATER OF LEITH

Scottish Water confirm that 24 Unsatisfactory Combined Sewer Overflows (CSOs) that discharge into the Water of Leith have been assessed as High Priority by Scottish Water and are in the solution development phase.

- The former Minister for Environment and Land Reform recently wrote to local MSP, Ben McPherson responding to SaveOurShore Leith's concerns

LOCH LOMOND AND THE TROSSACHS NATIONAL PARK

Scotland's River Basin Management Plan sets objectives aiming to improve Loch Lomond and the Trossachs National Park's water environment from 50% to 70% at good or better overall status by 2027.

- SEPA currently classifies 80% of the water environment at good or better water quality within the National Park and the River Basin Management Plan objectives aim to get to 92% by 2027.

RIVER ALMOND

Scottish Water is planning to invest up to £50m to deliver water quality improvements to the River Almond by 2027 to meet Scottish Government's River Basin Management Planning objectives.

LOCH LEVEN

The former Minister for Environment and Land Reform recently wrote to the leader of Perth and Kinross Council, Grant Laing responding to its concerns setting out the ongoing River Basin Management Plan objectives aiming to reduce phosphorus pollution in Loch Leven.

- The most recent independent scientific study concluded that 86% of the phosphorus load to Loch Leven was from rural diffuse pollution.
- SEPA's planned priority catchment work with land managers and farmers began in November 2022 and aims to reduce rural diffuse pollution to improve Loch Leven's water quality.

FUNDING

Scottish Water is performing well as a publicly owned corporation.

- Evidence of its performance is clearly demonstrated by the fact that Scottish Water is matching the levels of service provided by the companies in England and Wales whilst ensuring that the average household charge in Scotland is lower.
- In 2023-24, the average charge is expected to be £411 compared to £448 in England and Wales.
- Scottish Water invested £3.7bn to deliver Ministers' objectives across the 2015-21 period.
- £799m was invested in 2021-22 – upgrading essential treatment works, water supply and sewer networks.

REMUNERATION

Scottish Water is subject to independent economic regulation. No other body accountable to the Scottish Parliament is subject to such a transparent and demanding improvement regime.

- The remuneration packages of Scottish Water employees are a matter for Scottish Water – in line with the Government's public sector pay policy.
- That policy makes clear that all public sector bodies are expected to demonstrate pay restraint for the most senior workers.
- The current remuneration package is significantly smaller than that paid by comparable utilities, both in terms of salary and bonus incentives.
- Bonuses are only paid in the event of outperformance of demanding targets that are verified by independent regulators.

Enclosure 61 – FMQ Brief – Sewage Spills (Sept 2022)

4 Sept The Ferret and National reported 49 Scottish beaches polluted by sewage. This year 49 of the 87 designated bathing waters around the country have recorded levels of faecal bacteria that could endanger the health of swimmers, surfers and paddlers. The data quoted in the report has been sense checked with SEPA as accurate.

25 Aug Daily Mail (Scotland) reported sewage spillages into rivers and burns hit 10-year high, 282 were recorded 2021/22 up 45% from 194 in 2020/21. It comes the same week that warning signs were placed on two beaches to alert people to the risks posed by a sewage leak. The data quoted in the report was sourced from Scottish Water's most recent 2021/22 annual report.

23 Aug 2 Courier articles regarding sewage entering the River Tay at Dundee due to a collapsed public sewer main that is being repaired by Scottish Water.

TOP LINES

We take very seriously the issue of sewage spills, and the Minister for Environment and Land Reform's statement in Parliament last December set out comprehensive plans to reduce sewage spills over the coming decade.

- Scottish Water has reduce environmental pollution incidents by 60% over the last decade from 800 each year to fewer than 300, in spite of increasingly challenging weather patterns.
- It is important to remember that a small number of 'poor' monitoring results at each designated Bathing Water does not mean that water quality is continually poor on all days at Scotland's Bathing Waters. SEPA has analysed 1,297 water quality samples from 87 designated Bathing Waters this season and 93% were found to be at safe levels.
- Scottish Water's Improving Urban Waters Route Map, published in December 2021, sets out a programme of continued action to reduce wastewater pollution and sewage litter over the coming decade.
- This route map is backed by investment of half a billion pounds.
- Scottish Water is in the process of developing solutions for 90 (of 108 identified) high priority unsatisfactory Combined Sewer Overflows (CSOs) due to their impact on water quality or sewage related debris.
- It is continuing to assess the planning work required for the remaining 18.
- 27 high priority unsatisfactory Combined Sewer Overflows (CSOs) are included as improvement measures in the third River Basin Management Plans.
- Scottish Water is also developing solutions for 40 waste water treatment works which are included as improvement measures.
- Scottish Water has identified the first programme of around 250 Combined Sewer Overflow (CSO) monitors that will be delivered to meet its commitment to invest up to £70m to install 1,000 new monitors, including those at bathing waters, before 2024.
- Work is underway to identify the next priorities based upon predicted spill frequency, potential impacts and receiving water amenity with further programmes expected by December 2024.

BATHING WATERS

Last year, 99% of designated bathing waters (85) achieved the bathing water quality standards.

- Bathing Waters classification gives an overall indication of expected water quality, but there can be short term fluctuations in water quality driven by heavy rainfall.
- Bathing Water classification in Scotland is undertaken by SEPA following strict EU standards. These were reviewed by the World Health Organisation in 2018, which concluded they were fit for purpose.
- SEPA investigates poor water quality sample results to seek overall improvements to bathing water quality.
- SEPA's monitoring of Bathing Waters shows water quality can be impacted by a range of bacterial sources including sewage spills, agricultural land runoff, urban runoff, dog and seagull faeces.

RIVER TAY SEWAGE INCIDENT

Scottish Water worked hard with contractors to repair the broken sewer on the at Riverside Drive, Dundee, and this work was completed on Wednesday 24 August.

- As part of the emergency repairs, sewage received primary treatment to remove solid debris before being discharged to the River Tay as a temporary measure.
- SEPA was notified by Scottish Water of the incident on Friday 19 August and monitored the situation to ensure that any impact on the River Tay was minimal and short term.
- As a precautionary measure the public was advised not to bathe at Broughty Ferry and Monifieth Bathing Waters.
- Following SEPA monitoring this advice ended on Thursday 25 August as it was considered safe to bathe.

87% of Scotland's entire water environment is assessed by SEPA as having a 'high' or 'good' classification for water quality – up from 82% six years ago.

- This upgrade in water quality reflects improvements made through Scottish Water's investment programme, and work by a range of stakeholders to improve rural land management practices to reduce diffuse pollution.
- SEPA reports that 66% of Scotland's water environment meets 'good' ecological status, whereas, Environment Agency figures for England are only 16%.

ROLE OF COMBINED SEWER OVERFLOWS (CSOs)

Combined Sewer Overflows (CSOs) are an integral part of Scotland's sewer networks, ensuring sewers don't back up and flood homes, streets and sewage works during periods of heavy rainfall.

- SEPA is required by law to identify unsatisfactory CSOs, primarily for water quality or sewage related debris impacts, in order to reduce those impacts on the water environment.
- Rather than permanent monitoring, which is the more common approach for water companies in England, Scottish Water carried out a more comprehensive Scotland-wide environmental study programme to assess the impacts of its assets on water quality during the 2015 to 2021 investment period costing around £40m.
- This comprehensive Scottish Water environmental study programme contributed significantly to 654 out of 3,614 CSOs being identified as unsatisfactory by SEPA.
- SEPA regularly monitors the water environment to ensure it is not impacted by sewage spills.
- In 2019, it took around 12,000 monitoring samples across Scotland to safeguard the water quality of our rivers, lochs and coastal areas.
- SEPA licences and regulates 345 sewer networks operated by Scottish Water carrying out inspections on a rolling basis.
- In 2019 there were 7 out of 100 found not to be compliant with their licence conditions. SEPA took action to ensure compliance was achieved.

RIVER BASIN MANAGEMENT PLANS

Scotland's third River Basin Management Plans, published in December 2021 by SEPA, set out our aims and objectives to improve the water environment to good ecological status by 2027.

- The Plans include a wide range of measures which aim to ensure that 92% of Scotland's water environment has a classification of 'good' or better water quality by 2027.
- The River Basin Management Plans are complemented by Scottish Water's 'Improving Urban Waters Route Map', which describes how Scottish Water will take further action to reduce wastewater pollution and sewage litter over the coming decade.
- Scottish Water's new national campaign 'Nature Calls' urges customers not to flush wet wipes (and other items) down the toilet.
- We encourage the UK Government and other administrations to work with us to bring forward a ban on wet wipes containing plastic, and to ensure that products on the market meet the Fine to Flush standard.

FUNDING

Scottish Water is performing well as a publicly owned corporation.

- Evidence of its performance is clearly demonstrated by the fact that Scottish Water is matching the levels of service provided by the companies in England and Wales whilst ensuring that the average household charge in Scotland is lower.
- The average bill for 2022-23 is £391(£375 in 2021-22), which is £28 less than the average charge in England and Wales (£419 as published by Discover Water).
- Scottish Water invested £3.7bn to deliver Ministers' objectives across the 2015-21 period.
- £799m was invested in 2021-22 – upgrading essential treatment works, water supply and sewer networks.

REMUNERATION

Scottish Water is subject to independent economic regulation. No other body accountable to the Scottish Parliament is subject to such a transparent and demanding improvement regime.

- The remuneration packages of Scottish Water employees are a matter for Scottish Water – in line with the Government's public sector pay policy.
- That policy makes clear that all public sector bodies are expected to demonstrate pay restraint for the most senior workers.
- The current remuneration package is significantly smaller than that paid by comparable utilities, both in terms of salary and bonus incentives.
- Bonuses are only paid in the event of outperformance of demanding targets that are verified by independent regulators.

Enclosure 62 – FMQ Brief – Pollution to Rivers and Lochs (Dec 2021)

21 Dec: Express report 'Unacceptable!' SNP 'MUST take action' over damaging leaks - Scotland 'way behind' England' as per previous 13 Nov articles quoting LD Liam McArthur calling for SNP to address the problem and announce measures to counter it before matters get worse.
13 Nov: Herald reported internal SG emails issued under FoI, reflecting SG concerns at "unacceptably high" number of sewage leaks, and view that we are "way behind" England in monitoring/solving issues. Limited other media follow-up but LD Liam McArthur called for ministerial statement on "sewage leak crisis" and Lab's Monica Lennon urged SG to act as "our rivers are treated like sewers"
Background:

- SEPA regulates and licences activities that may impact water environment to protect "good" ecological status.
- 654 Storm overflows/ Combined Sewer Overflows (CSOs) out of a total of 3,614 in 50,000km of sewer network in Scotland have been identified by SEPA in 2019 as unsatisfactory.
- Only 24 CSOs (4% of the 654 'unsatisfactory' CSOs, or 0.6% of all 3,614 CSOs) have the potential to impact on water quality. These are identified for improvement through River Basin Management Planning by 2027.
- The remaining 630 CSOs with unscreened intermittent discharges cause significant sewage related debris and are being prioritised for improvement **Note**: **Annex A** contains background note on recent debate and developments around water quality provisions for the Environment Bill in the UK Parliament.

TOP LINES

We take very seriously the issue of sewage spills, and the Minister for Environment and Land Reform's statement in Parliament on 22 December set out comprehensive plans to reduce sewage spills over the coming decade.

- Supported by record funding from this Government, since 2010 Scottish Water has worked with SEPA to upgrade 279 combined sewer overflows and 104 wastewater treatment works by investing £686 million.
- Scottish Water's Improving Urban Waters Route Map, published yesterday sets out a programme of continued action to reduce wastewater pollution and sewage litter over the coming decade, with investment of a further half a billion pounds.
- Scottish Water has committed to develop solutions for 40 wastewater treatment works and 24 combined sewer overflows to improve water quality; to develop solutions for a further 235 combined sewer overflows causing sewage litter; and to increase monitoring on over 1000 highest priority storm overflows.

SCOTTISH GOVERNMENT EMAILS

It is important that published emails, partially reported in the absence of context, are put in the proper context.

- The reference to 'unacceptably high', reported in the Herald on 13 November, was referring to the frequency of spills at just 6 out of 350 monitored Combined Sewer Overflows (CSOs) – and not to the overall number of spills across Scottish Water's sewerage systems.
- At those individual sites, we are indeed of the view that the frequency of spills were too high, which is why SEPA is taking appropriate action to ensure any non-compliances with the licences are rectified.
- The reference in the Herald to Scotland being "way behind" the position in England was specifically about the monitoring of Combined Sewer Overflows (CSOs) by the water company, and not about the level investment to reduce their impacts on the water environment.
- Indeed, in England around 16% of the water environment currently meets 'good' ecological status according Environment Agency official figures, whereas in Scotland SEPA reports it is 66%.

ROLE OF COMBINED SEWER OVERFLOWS (CSOs)

Combined Sewer Overflows (CSOs) are an integral part of Scotland's sewer networks, ensuring they don't back up and flood homes, streets and sewage works during periods of heavy rainfall.

- SEPA is required by law to identify unsatisfactory CSOs, primarily for water quality or sewage related debris impacts, in order to reduce those impacts on the water environment.
- Rather than permanent monitoring, which is the more common approach for water companies in England, Scottish Water carried out a Scotland-wide environmental study programme to assess the impacts of its assets on water quality during the 2015 to 2021 investment period costing around £40m.
- This comprehensive Scottish Water environmental study programme contributed significantly to 654 out of 3,614 CSOs being identified as unsatisfactory by SEPA.
- SEPA regularly monitors the water environment to ensure it is not impacted by sewage spills. In 2019, it took around 12,000 monitoring samples across Scotland to safeguard the water quality of our rivers, lochs and coastal areas.
- SEPA licences and regulates 345 sewer networks operated by Scottish Water carrying out inspections on a rolling basis and in 2019 there were 7 out of 100 found not to be compliant with their licence conditions.
- Scottish Water continue to record levels of Environmental Pollution Incidents that are well below the target for the 2015-21 period of no more than 330 per year.
- SEPA regulation has reduced pollution events from the public sewage system by 60% over the last decade from 800 each year to fewer than 300.

RIVER AND LOCH POLLUTION LEVELS AT RECORD LOW

SEPA's monitoring and assessment of the water environment shows that the number of rivers and lochs rated as bad or poor due to pollution is at its lowest level ever. Just 1% were classified this way in 2019.

- 87% of Scotland's entire water environment, which includes coastal waters, estuaries, and groundwater as well as rivers and lochs, is assessed by SEPA as having a 'high' or 'good' classification for water quality – up from 82% six years ago.
- This upgrade in water quality reflects improvements made through Scottish Water's investment programme, and work by a range of stakeholders to improve rural land management practices to reduce diffuse pollution.

RIVER BASIN MANAGEMENT PLANS

Scotland's third River Basin Management Plans, published yesterday by SEPA set out our aims and objectives to improve the water environment to good ecological status by 2027.

- The Plans will include a wide range of measures which aim to ensure that 92% of Scotland's water environment has a classification of 'good' or better water quality by 2027.
- The River Basin Management Plans are complemented by Scottish Water's 'Improving Urban Waters Route Map', which describes how Scottish Water will take further action to reduce wastewater pollution and sewage litter over the coming decade.

FLOODING

The Scottish Government recognises the devastation flooding can bring to householders and communities, and that such incidents are becoming more frequent due to an increase in severe wet weather events.

- The complex nature of flooding means there are many agencies responsible for different aspects of the sewerage and drainage systems in communities, so a partnership approach is key to reducing the risk of flooding.
- As a 'responsible authority' under the Flood Risk Management Scotland Act 2009, Scottish Water works with local authorities to understand and manage surface water flood risks across the country.
- Scottish Water is fully committed to taking steps to reduce the risk of sewer flooding for those properties across Scotland that are at highest risk of repeat flooding.

FUNDING

Scottish Water is performing well as a publicly owned corporation; evidence of its performance is clearly demonstrated by the fact that Scottish Water is matching the levels of service provided by the companies in England and Wales whilst ensuring that the average household charge in Scotland is lower.

- The average household charge in Scotland is £382 in 2021-22 – £26 lower than the average charge in England and Wales which is £408.
- Scottish Water's capital programme is supported by Scottish Government lending. Since 2007, the Scottish Government has lent almost £2bn to Scottish Water. (£1,927,600,000)
- The Scottish Government intends to lend up to £1.02bn during 2021-27 which is an increase of £270 million from the previous period to support Scottish Water's capital programme.
- Scottish Water invested £3.7bn to deliver Ministers' objectives across the 2015-21 period.
- £612m was invested in 2020-21 – upgrading essential treatment works, water supply and sewer networks.
- It is proposed that some £4.5bn will be invested during the period 2021-27 – up from £3.7bn in the 2015-21 period.
- This contributes significantly to economic growth and will support over 5,000 jobs directly in the civil engineering, construction and design sectors - roughly 20% of the market in these sectors in Scotland.
- SEPA is funded through a combination of regulatory charges and grant in aid. The charging revenue is substantial and equates to over 50% of its annual operating income
- Since 2007, SEPA's overall budget has increase by 10% from £72m to £80m in 2020/21.

ANNEX A
Background note on UK Environment Bill: Storm overflow amendments

There has been continued media interest over the summer about the impact on the environment from sewage spills and associated sewage debris in rivers across the UK.

Storm overflows (combined sewer overflows) are an integral part of most of the sewer networks in England as well as Scotland, ensuring sewers don't back up and flood homes, streets and sewage works during periods of heavy rainfall. The visibility of large amounts of sewage debris as a result of such spills has attracted public interest across the UK.

Environment Bill Amendments

Earlier opposition amendments to the Environment Bill at Westminster had sought to press the UK Government to commit to removing all storm overflows and, hence, preventing all intermittent untreated sewage discharges to rivers.

The UK Government rejected this proposed amendment as both impractical and prohibitively costly given the existing combined sewage and storm water infrastructure with widely varying estimates of £100-500bn, also citing increased flood risk to homes and businesses should all storm overflows be removed.

Instead the UK Government announced on 26 October that the Environment Bill will be further strengthened with an amendment that will see a duty enshrined in law to ensure water companies secure a progressive reduction in the adverse impacts of discharges from storm overflows. The amendment underpins the expectation that the regulator OFWAT will ensure funding is available to English Water companies in future price control periods to significantly both reduce the number of storm overflows and the impact of discharges from them. The UK Environment Bill has now passed into law with a watered down compromise amendment sorting out these storm overflows at a slower pace.

The above matter regarding the regulation of sewage overflows in England has been widely conflated with a supply chain issue for sewage treatment chemicals. Separately, the Environment Agency issued a Regulatory Position Statement (RPS) in September that said that, under certain conditions, they would not take regulatory action for breeches of licences leading to discharge of sewage that had not been fully treated as a result of supply chain issues for treatment chemicals. Operators are required to get written permission in advance to take advantage of this RPS. This RPS is still in force, and is planned to be in force for the rest of 2021. We are not aware of any information about how many times operators have taken advantage of this RPS.

Scotland's position

In Scotland Ministers set Scottish Water's objectives and priorities and the independent economic regulators [Water Industry Commission for Scotland] WICS ensures necessary funding is in place to deliver them. In the current 2021-2027 regulatory period Ministers have already directed Scottish Water to take measures to further improve the water quality of Scotland's, rivers, lochs and bathing waters, including improving storm overflows to reduce the impact from their discharges.

There are 3,614 CSOs in Scotland. Over 250 unsatisfactory sewer overflows have been upgraded over the past decade. SEPA has, however, identified a further 654 unsatisfactory sewer overflows. It is estimated that the overall cost of improving all these unsatisfactory sewer overflows would be around £650m.

Scottish Water has currently committed to addressing 22 unsatisfactory overflows at a cost of £11m to resolve water quality issues under River Basin Management Planning.

In July, Ms McAllan's asked for further action on sewage spills. Senior officials continue to press SEPA and Scottish Water to bring forward proposals for a phased programme of work, setting out the associated risks and implications of each, for Ministers' consideration. Further advice will be brought forward to Ministers in December.