



# Scotland's Flood Risk Management Conference 2020

## Conference Report

# Introduction

## Managing flood risk in the context of the climate emergency

This year we set out to do something a little different. We are all working hard to make Scotland more resilient to flooding, and sometimes we can get caught up in our own pocket of work without necessarily seeing the wider benefits of what we do and the context in which we are working.

In our concerns, worries and hope we are no different from the general public when we think about the climate emergency and it was really positive the response delegates had to framing the conference in this way, and in particular to having the panel of young climate activists.

We recorded audio of all the presentations, so in this report you'll find links to listen to all the speakers again. Like a good film, there's always something else to enjoy the second time around.

During these unprecedented times brought about by Covid-19, there are many changes we are now accommodating, but the challenge of managing flood risk continues and I hope that the learning from this conference will inspire change.

I'd like to take this opportunity to thank the conference steering group: Debi Garft (Scottish Government); Eleanore Cooper (SEPA); Will Burnish (Moray Council); Susan Veitch (South Lanarkshire Council); Dawn Lochhead (Scottish Water); Andrew Jackson (RPS); and Kirsty MacRae (Scottish Flood Forum) for their invaluable input.

Ruth Wolstenholme  
Managing Director, Sniffer



**Ruth Wolstenholme**

Sniffer's Managing Director opened the conference and invited delegates to add their words to a 'cloud' (pictured opposite) to help capture the mood of the audience on the subject of the climate emergency.



**Keith Connal**

The Chair for the first session, Keith is the Scottish Government's Head of the Natural Resources Division with policy responsibility for biodiversity and wildlife and recently also for peatland and flood risk management.



Through Sli:do delegates added the word that most expressed how they felt about our current situation, living in the climate emergency. Concern and worry were common, but it was good to see the positivity of the word 'Action' in there, as well as a fairly prominent 'hopeful'.



The first session of the conference heard from four inspiring young people presenting on the threats climate changes poses to their futures, urgently calling for action from those attending the conference and decision makers at local, national and international scales.



## Young people respond to the climate emergency

### Helen Jackson, 21

Glasgow University student Helen is a member of Scottish Youth Climate Strike and is active in planning strikes and other events in the run up to COP26 in Glasgow. She spoke about the need to mitigate while adapting to the effects of climate change. "Prevention is better than the cure". Change is coming whether we like it or not, but as Helen stated "We can choose what change that is".

### Holly Gillibrand, 14

Holly has been a high profile and vocal advocate for the environment, and travelled to meet political party leaders at Westminster with Greta Thunberg. She started off talking from perspective of 2120, and wondered whether people would talk about us as the generation that made the changes required to save the climate. Holly was also keen to talk about the ecological emergency, and how rewilding can help restore balance.

### Milo and Ellie (P7), Mount Vernon Primary School

Milo and Ellie's school are members of their school's Climate Change Citizenship Group. They spoke with conviction of the need for supermarkets to reduce plastic and source more local food. We need to tackle deforestation at home and abroad, and make driving electric cars more affordable and more practical.

**"Can we really continue to build our way out of this?"** 16 votes on Slido

## Session: A response from the public sector

**Tom Russon** (Team leader Climate Change and adaptation at Scottish Government) talked about Nicola Sturgeon being the first national leader to declare a climate emergency. This, he said, was in response to science and also in response to the clearly expressed voices of people in Scotland and especially young people. Ambition needs to be matched with on the ground action and they are currently updating the Climate Change plan.

**Vincent Fitzsimons** (SEPA) made it clear to delegates that flooding is a key priority and their aims are to avoid, protect and warn. The key thing we can do is to prevent, and ensure developments are not created in areas at risk. For those existing developments there is a need to prioritise best protection measures and need to develop new partnership ways of working.

**Gordon Reid** (Scottish Water) stated they are committed to taking action on the climate

emergency, and are looking to reduce emissions across operation and capital investment activities. Scottish Water broke their record for the most phone calls in one day (over 2000) to report flooding and this could become the norm if we don't manage flood risk.

**Catherine Payne** (Fife Council) works as she puts it on "front line of preparing a local response to the climate emergency". She believes we need to be more radical and that we are working within a system that has failed us. We need to empower people to become citizens rather than consumers – you don't create a business case for putting out a fire you just act. She feels that in Scotland there is huge gap between aspirations and the ability to implement and that we need to be agile. Declaring a climate emergency is the easy bit says Catherine and adaptation so far has come from "valiant few". Now we need everyone to play their part.

*"Thanks Catherine Payne for your clear, hard hitting messages! Need more people like you to shake things up!"* Slido



**FILM (3mins)**

**What does the climate emergency mean for FRM in Scotland?**

Watch our delegates give their thoughts on how working in Flood Risk Management is changing due to the climate crisis.

[Watch it on Vimeo](#)



## Session: Policy to implementation

Audio

“Planning is about managing the relationship between People and place and work” said **John McNairney** from the Scottish Government.

John gave an outline of the National Planning Framework and how work has begun on the 4th planning framework. Planning involves working to support our quality of life, health and wellbeing and protect and strengthen the special character of our places. So how do we approach development? How should Scotland be as a place in 2030? How do we get positive outcomes for biodiversity? These are the kinds of questions we need to keep asking.

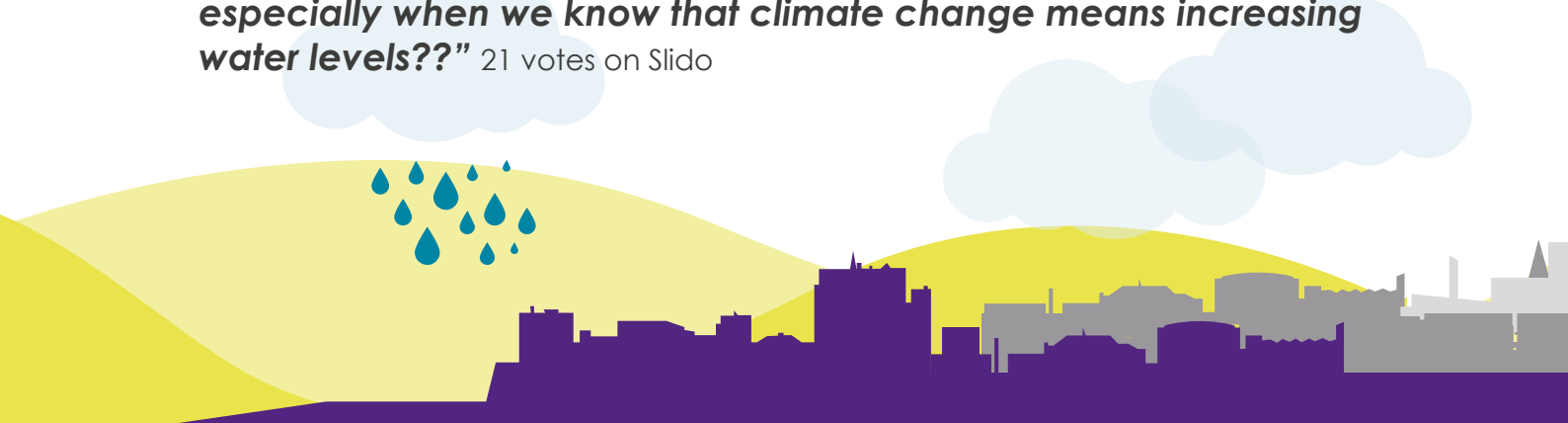
**Andrea Johnstonova** (SEPA) – Planning Manager at SEPA was up next. She is incorporating climate Change into SEPA’s flood risk strategies.

“Its for us grown ups to do something about it” Andrea said early on after displaying a drawing by her daughter that illustrated her fears for the future.

She highlighted the need for stronger messages around how we adapt to climate change and gave some alarming statistics. For example, right now Scotland has 284,000 homes, businesses and services at risk of flooding. 1 in 11 homes are at risk, and by 20180 that will rise to 1 in 9. 90% of this increase will be due to coastal flooding.

**Brian Templeton** was the third and final speaker in this morning session. He is on the Dumfries and Galloway flood team and Section Lead at the Local Authority Forum. He talked about LFRMP prioritisation for cycle 2, and property losses that may occur in future. He looks at the kind of decisions that we will need to make in the years ahead – including the really big decisions around managed retreat or abandonment of communities and land.

**“Why does development keep getting approved in flood risk areas, especially when we know that climate change means increasing water levels??”** 21 votes on Slido



## Case studies: enabling change

A series of presentations in the last session before lunch looked at the importance of close collaboration with partners from an early stage, and how protecting communities from flooding can bring many additional benefits.

### Working in Partnership

Alan Gardner (Balfour Beatty) and Peter Dickson (Perth and Kinross Council) talked about the value of collaboration between contractor and local authority, focusing on the Almondbank flood protection scheme

Audio 

### Multiple benefits

Neil Mclean (Stantec) and Ross Speirs (Fife council) gave a presentation on the St Andrews Kinness Burn flood study. After several recent extreme flood events they wanted to identify economically viable and sustainable fluvial and surface water management options.

Audio 

### Co-delivering river restoration and flood risk management

Alice Tree (SEPA), and Duncan Sharp (The Highland Council) talked about the flood protection study on the River Peffery near Dingwall that has been prone to flooding. Three sections of the river were identified as needing restoration to improve its resilience.

Audio 

### Twenty years of change

Louise Parry (ARUP) discusses the Water of Leith flood prevention scheme. She concludes that flood prevention schemes need to consider the different elements of change and uses of space within a city, and stresses the importance of collaboration between public and private sector.

Audio 

***“But should we still be aiming to ‘grow the economy’? If serious about radical solutions shouldn’t we stop our unsustainable obsession with infinite economic growth?”*** 33 votes on Slido

***“With such frequent flood events are you already in a retreat conversation? How do you manage these conversations with the affected community?”***  
19 votes on Slido

## Workshops: Enabling change

In the afternoon of Day 1, after a tasty vegetarian buffet, and much lively discussion we moved into parallel sessions.

### Escape Room

This space was about enhancing collaboration in the flood risk community. By participating, delegates built their rapport and improved their collaborations.

*“Was good to take a break and have some lighthearted fun & network”*

### Making sense of the climate emergency

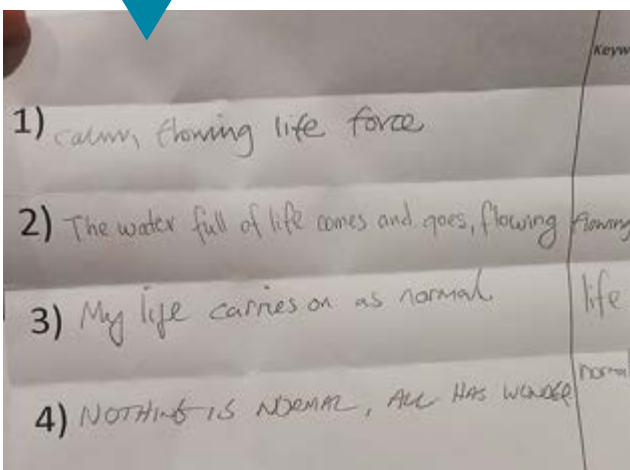
To collectively operationalize what climate emergency means for us, our day jobs and our organizations, we explored how to treat emergency like a true emergency and move away from business as usual. The calls for system change, inspired by young people’s voices, will hopefully help catalyze necessary changes in the FRM world.

### Creative practices

Here we have been reimagining our relationship with rivers – attempting to understand what being the river feels like. We watched segments of underwater film, which seemed to imbue the river with a life and personality. Our responses to the film then helped create a collage of poetry which showed a curious alignment of our more ‘creative’ response to rivers.

### Masterplanning a climate change park

This was an opportunity to design flood resilience alongside other benefits using the place principle in major new developments. We’ve been adopting a sub-regional approach and thinking about ‘whole place’ in masterplanning a climate change park – embracing the complexity of places and what it means when it comes to holistic placemaking.



***Calm, flowing life force***

***The water full of life comes and goes, flowing***

***My life carries on as normal***

***Nothing is normal, all has wonder***

A poetry ‘collage’ from the creative practices workshop

**“How do we keep our flood models and studies up to date in a world of constant change?”** 17 votes on Slido

# Session: Natural Flood Management

The last session of the day was chaired by Ruth Ellis from SEPA.

## Implementing Natural Flood Management

Will Burnish (Moray Council) presented the findings from a survey conducted among the flood risk management community. While there is a growing momentum and interest around implementing NFM, some key aspects to help promote it as a part of flood scheme were identified:

- using expert advice from people on the ground
- improving modelling of NFM
- access to other sources of funding
- increasing confidence in quantifying each mechanism
- standardisation of methods to improve performance
- evidence that can be shared with other communities

Thank you



Salmon Parr



Salmon Smolt

## Integrating Modelling and Monitoring of Natural Flood Management

lessons learned from the Eddleston Water study with Chris J Spray - Dundee University  
Barry Hankin - JBA

[Download presentation](#)



**“Thanks for highlighting the NFM benefits to insects, fish and other co-habitants of bogs and wetlands! How do we bring focus on other than human species to FRM?”** 13 votes on Slido





***“Is NFM failing because of a lack of resource to engage with the landowners and stakeholders needed to build relationships and work together?”*** 16 votes on Slido

## Community Attitudes to Natural Flood Management

Keith Marshall, Kerry Waylen, Mark Wilkinson, Nikki Dodd, Sophie Beier

[Download presentation](#)

## Empirical insights into natural flood management

Results from the intensively-monitored Eddleston catchment with Andrew Black, Andy Young, Alan MacDonald, Tom Ball, and Chris Spray

[Download presentation](#)

## Accumulating benefits: Natural flood management in Allan Water Catchment

Sandra Stewart from Forth Rivers Trust and Claire Elliot from Stirling Council

[Download presentation](#)



### THINK PIECE Terry A'Hearn

Key message from SEPA CEO was crisp and clear: the world is changing and we can't just tinker - we have to help system change in radical way and we better do it fast. Terry also highlighted the role of visionary leadership and the need the need for different decision making to live up to the change required.

Audio 

***“Should we shift our perspective of NFM and focus on other benefits (climate, wildlife, health, etc), rather than just reducing flood risk?”*** 23 votes on Slido



# Day 2 - Living with flooding



## Session: Living with flooding

### Long term impacts of flooding in the north-east of Scotland

Lorna Philip and Gillian Dowds from the University of Aberdeen and Mags Currie from the James Hutton Institute gave a presentation to help us better understand the long term impacts of flooding upon people and communities and to consider what types of support and advice people and communities need at different stages of a longterm recovery.

[Download their presentation](#)

### How many properties are protected by flood risk management in Scotland?

David Basset from JBA asked some of the perennial questions around flood protection for properties.

[Download his presentation](#)



#### KEY NOTE ADDRESS

**Roseanna Cunningham MSP**

*“Adaptation is about today”*

In her address Cabinet Secretary emphasized the urgent need to act collectively upon the climate emergency. While reminding us of Scotland’s commitment to reduce all greenhouse gas emissions to net zero by 2045, she highlighted that adapting to our changing climate is also essential - and both require fundamental changes in the way we live. Ms Cunningham also acknowledged the importance of the flood risk management community in continuing to make people and places more resilient.

[Watch it on Vimeo](#)

#### Top ranked questions for the above speakers

*“Should we stop using the term ‘flood protection scheme’, and instead use ‘flood reduction scheme’? To the public, “protection” implies zero risk of flooding.”*

*“Should Scottish Government or insurance companies offer a grant for property level protection?”*

*“Should we be encouraging people to resettle back in a property which floods so extensively?”*

#### Top ranked questions for the Cabinet Secretary:

*“What will happen to environmental legislation when we leave the EU?”*

*“When will the Scottish Government set out a clear strategy for managed relocation and retreat? Will this be a focus of forthcoming NPF4?”*

*“What is delaying Scottish Ministers approving/ discounting flood scheme which have been through public inquiry?”*

*“Is it also not about being more innovative in designing of homes and developments to live with water? Other countries have adapted to living in these areas.”*

## Session: Property flood resilience

### Code of Practice and Guidance for property flood resilience

David Kelly from BRE talks about the benefits of introducing a code of practice for design, specification and success of property flood resilience.

[Download presentation](#)

### Lessons Learned from the Kings Sutton Property Flood Resilience Scheme

Enrico Isnenghi shares WSP's lessons around complex and time consuming communication that involves a number of stakeholders in resilience scheme planning. He also highlights the need to give homeowners a more active role in the process.

[Download presentation](#)

### 10,000 Raingardens for Scotland increasing the use of raingardens as surface water management features

Emilie Wadsworth (Central Scotland Green Network Trust) discusses CSGN's journey to date and the future in promoting, encouraging and delivering 10,000 Raingardens across Scotland.

[Download presentation](#)

### Top ranked questions

*"Should developers be required to fund the costs of protecting properties which have flooded within 10 years of being built?"*

*"Should all new developments be required to incorporate raingardens?"*

*"When will Scotland produce detailed design guidance on raingardens, similar to that produced by Urban Design London?"*

*"If relying on raingardens as part of flood risk management how can we ensure that they are properly maintained to remain effective?"*



## Session: Preparing for a changing climate

### Implementing Scotland's Climate Change Adaptation Programme

Anna Beswick, Adaptation Scotland Programme Manager at Sniffer, shared the lessons learned from implementing Scotland's Climate Change Adaptation programme as well as the role a new 'Capability Framework for a Climate Ready Public Sector' plays in helping organizations build their adaptation capacities.

[Download presentation](#)



### Taking a managed adaptive approach to flood risk measures in Scotland

Anne Marte Bergsens introduced new ClimateXChange guidance. Drawing on Scottish case study evidence, it presents recommendations for how the guidance can be changed to facilitate more adaptive approaches in cases where this can be valuable.

[Download presentation](#)

### A Panarchy Project with the River Forth

Rachel Clive (University of Glasgow; with co-researchers from Green Routes, Gartmore) discuss accessible and "panarchic" FRM consultation practices, local capacity and capacity of neurodivergent people in FRM thinking as well as community empowerment through integrative art-science public engagement work.

[Download presentation](#)

#### FILM (3mins)

**What do you think we'll be talking about at FRM2030?**

Watch our delegates give their thoughts on their hopes and aspirations (and worries) about the next ten years, and what we might be discussing at FRM2030.

[Watch it on Vimeo](#)



# Tools for change - sessions and workshops

## New tools, methods and guidance presentations Part 1

This was an opportunity to learn about and discuss some of the latest developments supporting FRM:

- A web-tool to explore the potential impacts of climate change on peak river flows in Great Britain  
*Alison Rudd (Centre for Ecology & Hydrology)*

[Download the presentation](#)

- Developing a method to assess the impact of incremental loss of floodplain  
*Anne Marte Bergseng, (ClimateXChange) and David Cameron (JBA Consulting)*

[Download the presentation](#)

## New tools, methods and guidance presentations Part 2

In this second session we looked at:

- Use of the Latest 2D Modelling Techniques in surface water management to help inform a long-term drainage strategy  
*Dom McBennett (Scottish Water), Andy Reid (Dundee City Council), Francisco Simon (Scottish Water)*

[Download the presentation](#)

- Sustainable urban drainage systems (SUDS) and partnership working  
*John Wright (Mott MacDonald) and Julie Waldron (City of Edinburgh Council)*

[Download the presentation](#)

# Reflection and thanks



## Minnie Jain, The Flow Partnership

Minnie works with communities across the world enabling communities to do what they *already* do really well. Communities already know what to do, and are now being backed by science. She makes the point that a community is made up of everyone from governments to the children, and all can be part of the solutions we seek.

Audio 



# Sniffer

Sniffer is a Scottish charity working towards a sustainable future for all. We take a collaborative approach to understanding and responding to environmental change for greatest benefit for people and places. Our activities are focused around three key areas:

**Capacity building and training** – this includes design and provision of guidance materials, tools, training events and conferences. Our Adaptation Scotland Capability Framework for example, is designed to help the public sector embed adaptation to climate change in its activities, and for 15 years we have been organising the FRM conference, establishing it as the go to place for policymakers and practitioners to share experience, best practice and new ideas. This is now supplemented by a new Knowledge Exchange programme delivering to the needs of the FRM community.

**Climate ready places** – through initiatives such as Climate Ready Clyde, Highland Adapts and Edinburgh Adapts we bring key stakeholders together at a regional, city-wide or local level to ensure we have a participative approach to climate change adaptation.

**Innovation services** – we provide services to support organisations and businesses become more sustainable and resilient to the impacts of climate change. We know a lot about climate finance, climate science and theories of change. Among many other things.

At Sniffer we like to be bold and creative in helping those across all sectors of society play their part in making Scotland more sustainable, resilient and more just.

Visit [www.sniffer.org.uk](http://www.sniffer.org.uk) to learn more

Follow us on Twitter at [@SnifferScotland](https://twitter.com/SnifferScotland)

We are proud to deliver some of Scotland's most influential and ground-breaking programmes including:

ClimateReadyClyde

Adaptation  
Scotland  
supporting climate change resilience

This is a free event organized by Sniffer and funded by the Scottish Government



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gov.scot



Edinburgh Centre for Carbon Innovation  
High School Yards  
Infirmary Street  
Edinburgh, EH1 1LZ

**T:** 0131 6505326 **E:** [info@sniffer.org.uk](mailto:info@sniffer.org.uk)  
**W:** [www.sniffer.org.uk](http://www.sniffer.org.uk) **🐦:** @SnifferScotland

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Registered Office: Caledonian Exchange,  
19a Canning Street, Edinburgh, EH3 8HE

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