OFFICIAL REPORT
AITHISG OIFIGEIL

DRAFT

Public Audit Committee

Wednesday 29 October 2025

Session 6

The Scottish Parliament
Pàrlamaid na h-Alba

© Parliamentary copyright. Scottish Parliamentary Corporate Body

Information on the Scottish Parliament's copyright policy can be found on the website - www.parliament.scot or by contacting Public Information on 0131 348 5000

Wednesday 29 October 2025

CONTENTS

PUBLIC AUDIT COMMITTEE
28th Meeting 2025, Session 6

CONVENER

*Richard Leonard (Central Scotland) (Lab)

DEPUTY CONVENER

*Jamie Greene (West Scotland) (LD)

COMMITTEE MEMBERS

*Colin Beattie (Midlothian North and Musselburgh) (SNP)
*Joe FitzPatrick (Dundee City West) (SNP)
*Graham Simpson (Central Scotland) (Reform)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Anne Aitken (Scottish Government)
Mark Boyd (Convention of Scottish Local Authorities)
Roy Brannen (Scottish Government)
Will Burnish (Moray Council and Scottish Collaboration of Transport Specialists)
Gareth Dixon (Convention of Scottish Local Authorities)
Alex Flucker (Scottish Environment Protection Agency)
Diarmuid Ó Néill (Scottish Government)
Michelagh O'Neill (Scottish Government)
Nicole Paterson (Scottish Environment Protection Agency)

CLERK TO THE COMMITTEE

Katrina Venters

LOCATION

The Sir Alexander Fleming Room (CR3)

Scottish Parliament

Public Audit Committee

Wednesday 29 October 2025

[The Convener opened the meeting at 09:30]

Decision on Taking Business in Private

The Convener (Richard Leonard): Good morning. I welcome everyone to the 28th meeting in 2025 of the Public Audit Committee. We are joined online by the deputy convener, Jamie Greene.

Agenda item 1 is a decision for members of the committee on whether to take agenda items 3, 4 and 5 in private. Do we agree to take those items in private?

Members *indicated agreement.*

"Flooding in communities: Moving towards flood resilience"

09:30

The Convener: Agenda item 2 is further consideration of the Audit Scotland and Accounts Commission report, "Flooding in communities: Moving towards flood resilience". I am pleased to welcome to the committee a large array of witnesses from the Scottish Government, the Scottish Environment Protection Agency and the Convention of Scottish Local Authorities.

From the Scottish Government, I welcome the director general for net zero, Roy Brannen. He is with us this morning with Diarmuid Ó Néill, who is the interim director of environment and forestry; Anne Aitken, who is the deputy director of environmental quality and resilience; and Michelagh O'Neill, who is the flooding team leader.

We have representatives from SEPA: I am pleased to welcome Nicole Paterson, who is the chief executive, and Alex Flucker, who is the chief operating officer for data, evidence and innovation. You are very welcome, Mr Flucker.

From COSLA, I am pleased to welcome Gareth Dixon, who is a policy manager on local government finance; Mark Boyd, who is the head of finance at North Ayrshire Council, but is here representing COSLA; and Will Burnish, who is a senior engineer at Moray Council and is representing the Scottish Collaboration of Transportation Specialists, or SCOTS.

We have a number of questions to put that are based on the findings contained in the report but, before we get to those questions, I invite the director general to make a short opening statement.

Roy Brannen (Scottish Government): I am pleased to be here alongside my colleagues in the Scottish Government, SEPA and COSLA. The Scottish Government welcomes the Audit Scotland flooding in communities report and its findings that the Scottish Government's national flood resilience strategy is a

"positive step forward in providing the strategic leadership that is needed"

to address the challenge.

At the core of our work are the people across Scotland who are impacted by flooding. The Scottish Government is committed to improving flood resilience across communities in Scotland, and we are working closely with partners to do that.

It is encouraging that many of Audit Scotland's recommendations align with areas of improvement

that the Scottish Government has already identified. Work is already under way, including work with COSLA to manage the current cycle of flood protection scheme funding and to develop new governance and processes for funding major flood protection schemes in future.

Since Audit Scotland's recommendations were shared with us in draft form ahead of publication, we have made significant progress on a range of workstreams, including providing £970,000 to SEPA to improve coastal flooding monitoring and a further £600,000 to develop a national register of flood and coastal assets.

Work is under way to establish a national flood advisory service to improve delivery of high-value flood protection schemes. We are establishing the flood resilience strategy implementation governance group with key partners to oversee implementation of the national strategy, which includes the delivery of an implementation plan; the procurement of coastal and land light detection and ranging—LiDAR—mapping to improve mapping data; the finalisation of our flood recovery framework with local authorities; and the funding of research into home flood plans and how best to support the mental health and wellbeing of people who are impacted by flooding.

There is much to do to implement the flood resilience strategy and, in so doing, address Audit Scotland's recommendations but, in my view, those examples show that the Scottish Government and partners are already making significant progress.

As always, we will do our best to answer your questions today and to follow up in writing where required.

The Convener: Thank you very much. I invite Nicole Paterson to make an opening statement on behalf of SEPA.

Nicole Paterson (Scottish Environment Protection Agency): Good morning, convener, and thank you very much for inviting SEPA to contribute to today's discussion on flood resilience. We very much welcome Audit Scotland's report and are already working with partners to deliver on its recommendations.

Much of the committee's previous conversation focused on roles and responsibilities, so I will briefly outline SEPA's vital role in helping the nation to prepare for, respond to and recover from flooding. Indeed, it is one of the most important things that we do as an agency. Put simply, we are the national flood forecasting, flood warning and strategic flood management authority for Scotland.

I would just briefly explain that, when it comes to those services, there are three words that we use and which I am sure we will refer back to in today's meeting: avoid, adapt and warn.

First, we help the country to avoid flood risk harm by preparing the national flood risk assessment, which identifies areas in Scotland at significant flood risk. We provide flood risk advice for the land use planning system; last year, we provided advice on 1,500 consultations. We also produce and maintain the flood hazard maps.

Next, we help places to adapt to future flood risks by leading the development of 14 flood risk management plans that set the national strategic direction for flood risk reduction, and by running national campaigns and community engagement initiatives to support partners and colleagues in raising awareness of flood risks and promoting preparedness.

Finally, we warn communities when flooding is imminent by providing flood forecasts—our three-day advance forecasts help communities and responders to prepare—and then by providing flood warnings and alerts when flooding is imminent and immediate action is required. We operate floodline, our public alert system that provides real-time flood warnings to 42,000 subscribers across Scotland, and we maintain Scotland's hydrometric network of more than 700 monitoring stations, which provide data every 15 minutes—24 hours a day, seven days a week—all of which is made available to partners within 30 minutes.

Together, the services that we provide as an agency are vital. They save lives and protect livelihoods. However, as climate change increases flood risk, we must shift from trying to fix flooding through protection and defence and move towards building much more flood-resilient places.

We very much look forward to this morning's discussion with the committee and representatives sitting alongside me on this important subject and, of course, on how we work together to strengthen Scotland's flood resilience.

The Convener: Thank you very much. I will begin by asking what is for us a standard question. Mr Brannen has, to some extent, addressed this already, but I want to ask each of you in turn whether you accept the findings and recommendations contained in this joint Audit Scotland and Accounts Commission report.

Roy Brannen: We do accept the recommendations. I think that I signalled in my clearance letter that a couple of the timings would be challenging, and we might get into the budget cycle when it comes to how we agree future funding, but, in general, my answer would be that I accept the recommendations.

The Convener: Okay, thanks.

Nicole Paterson: I can confirm on SEPA's behalf that we accept and confirm the findings of the Auditor General's report. Again, we will work alongside partners on the timing of delivery and, indeed, we have already started to lean in to some of the solutions that are required to be presented to ensure Scotland's greater flood resilience.

The Convener: Okay, thanks. I call Mr Dixon, on behalf of COSLA.

Gareth Dixon (Convention of Scottish Local Authorities): Good morning, convener, and thank you.

We welcome the report; indeed, many of us were involved in working with the auditors on the recommendations, which we also welcome. However, we share the recognition that the challenges and timescales are quite difficult.

The Convener: Okay. I can say from my time as convener of this committee that it has not always been the case that timescales have been set by Audit Scotland or the Accounts Commission in reports. However, it has, I think, become practice to try to give a bit more of an impetus to acceptance and implementation of the recommendations. That is why the report is set out in the way that it is.

The report certainly uncovers some areas where there is a certain level of dissatisfaction, if not concern. Indeed, the very first recommendation talks about "gaps" and a lack of clarity over "roles and responsibilities". How would you address that criticism?

Roy Brannen: The flood resilience strategy sets out a pretty clear trajectory of six core outcomes that will move us from where we are today—which is cycle 1 activity, by and large—to where we need to get to. There is good alignment between that and the work that Audit Scotland has uncovered.

On the roles and responsibilities and what practitioners do, quite a lot of detail is already included so that individual members of the public can see what the responsibilities are between the Scottish Government, SEPA, Scottish Water and COSLA. I accept that the signalling of that could be better, and that is a matter for the flood resilience strategy implementation governance group—that is the last time I will say that; we will shorten it to "governance group". That team is being brought together now. We will consider a range of things, including all the recommendations, and we will identify where there are gaps and what we need to do, as a group, to plug the gaps and make it much easier to identify exactly who does what.

The Convener: There have been gaps in cycle 1, presumably.

Roy Brannen: I was not around in 2015, and how the original—

The Convener: You have been around for a few years, Mr Brannen.

Roy Brannen: But not during that period, with prioritisation for the cycle 1 flood prevention schemes. The key elements from back then included the surety of funding over the 10-year period, with £42 million committed through the local government grant to COSLA to support all the priority schemes.

A prioritisation exercise was done by SEPA at that time—Nicole Paterson may wish to say a little more about that—which considered the schemes in terms of economy, environment and social impact. By and large, it was up to local authorities to take forward the schemes, plan them, design them and programme them accordingly.

The key functions of who does what were pretty well set out back then. Clarity is required going forward to cycle 2, and that is what the implementation governance group is really all about. The issue is how to strengthen the funding element and the governance of any cycle 2 programmes.

Nicole Paterson may wish to say a bit more about 2015.

The Convener: If you do not mind, Mr Brannen, I will ask the COSLA representative to give their perspective, because local government is often at the other end of things. We will get into the funding arrangements over the course of this morning, but there is quite a big onus on both local government and central Government to find the capital expenditure required. It is therefore important to understand where the transfer of risk takes place and who is responsible if things fall behind.

Mr Dixon, what is the local government perspective on the gaps and on whether there is clarity on roles and responsibilities?

Gareth Dixon: In exhibit 6, the Audit Scotland report shows the "Key responsibilities" of different stakeholders and outlines local government's responsibility as the planning authority—and local authorities are responsible for implementing flood risk management.

I might turn to my colleague, Mark Boyd, to get further intake on what that was like from the finance perspective.

Mark Boyd (Convention of Scottish Local Authorities): Speaking from a finance perspective—looking through the lens of local government finance in particular—I would note that one issue that has arisen, which is very much impacted by inflation and construction cost

volatility, is the certainty of costs and how that aligns with the ability of councils to plan.

The council funding element is included in councils' general capital grant, and the level of funding for flooding contained in the general capital grant competes with a range of other investment priorities in councils. From a funding perspective, and as influenced by the timing of the development of schemes—with inflation and cost volatility—the result is a pretty challenging financial landscape.

The Convener: I will bring you in at this point, Ms Paterson. What is SEPA's perspective on what is identified in the report as "gaps" and sometimes "a lack of clarity" about roles and responsibilities?

Nicole Paterson: I will first address the point about roles and responsibilities. It is correct that no one single organisation is responsible for the delivery of flooding services in Scotland. However, speaking from a SEPA perspective—and as I think we will hear from colleagues—I would say that we are each very clear about our own individual roles. There is an opportunity in relation to the very people whose services we design, manage and deliver: to bring clarity to those consumers. That is one of the gaps.

09:45

We are very clear about the roles and what we deliver, but we recognise that there are gaps in the data, the evidence and the science on which all our decision making is based. There are two clear areas where gaps are identified at the moment. One is in the flood hazard maps, which look to determine the level of flood risk to any particular community. Those maps are never intended to be used at an individual householder level; they give a community-level sense.

The current maps are dated 2018, which is the last time that we undertook a national flood risk assessment. The next flood risk assessment is due in December this year. In many respects the natural cycle will fill some of those gaps, but that is still a community-level resource. Local authorities will work with individual communities to recognise the level of flooding at a local level, from various sources.

The second area, which the committee discussed previously with the Auditor General, concerns what might be regarded as gaps in the existing infrastructure. We have flood defence infrastructure within communities at the moment, and local authorities will undertake the asset management and maintenance of those flood protection schemes. I believe that the gap that is referred to relates to the fact that we do not have exact or full details in our national modelling and forecasting of each flood protection scheme.

If Scotland's climate were to stay static, that would be less of an issue. As we know, however, there are significant impacts and implications from climate change, so it is important to have the exact state and condition of each flood protection scheme so that we can use that information from day to day in our models. We are already working with local government and through the implementation group to consider how to resolve that gap.

The Convener: We will return to those themes as we go through the morning.

I have one other question, which I think is largely for you to answer, Mr Brannen. You have told us already that things are well under way and that, although the recommendations and timescales might be quite challenging, the recommendations are already being addressed, and you accept them all.

We took evidence from the Auditor General and other people from Audit Scotland on 17 September—which is not that long ago—as well as from Andrew Burns from the Accounts Commission. As was also captured in the report, Mr Burns said that, while there is now a strategy, which is

"a step in the right direction ... there is not an implementation plan."—[*Official Report, Public Audit Committee*, 17 September 2025; c 40.]

Why is that?

Roy Brannen: The strategy looks out to the mid-century—it is a long-term strategy. The second element is to deliver the implementation plan, and the governance group's task is to work up that plan. I hope that we will have an implementation plan in place by the start of 2026 that will take forward the key recommendations within the strategy, as well as the recommendations from Audit Scotland.

The Convener: The recommendation is that you will publish that implementation plan. Are you prepared to go on the record to say that you will do that?

Roy Brannen: It will be transparent, yes. The plan will set out what we will do as a group to address the issues that have been raised. It will also say how the strategy will actually deliver in real terms. I have already cited some examples of things that we have already implemented. We have started to consider the flooding advisory service, which is effectively the new governance model of how cycle 2 schemes will be overseen.

The Convener: Thank you. Colin Beattie has some questions.

Colin Beattie (Midlothian North and Musselburgh) (SNP): I would like to talk a little bit

about funding for the major flood schemes. The Auditor General's report indicates that

"the funding mechanism for major flood schemes is not fit for purpose".

That is quite a strong statement. The report also says that the funding mechanisms lack the appropriate safeguards to manage risks relating to delays and cost increases. That is worrying, given the nature of what we are facing. What mechanisms will be put in place to ensure that future risks of delays and cost increases are better managed?

Roy Brannen: I touched on some of the history of that in my earlier answer. Prior to 2015, things were done on a fairly ad hoc basis. In effect, the Government had a range of engineers to look at and check flood schemes as they came forward. In 2015, that changed, with certainty of funding over a 10-year period. A number of schemes were identified through the strategic analysis that was undertaken by SEPA and local authorities, and those schemes were, by and large, delivered by local authorities, running across that 10-year period. Over that period, the various issues that have been cited today—construction inflation, changes in the scope and timing of schemes, Covid and so on—all had an impact on scheme development.

What we would like to do in cycle 2—again, this is the governance group's task—is look at how we put in place a flooding advisory service that would produce a better holistic overview of the programme. There was not really a programme back in 2015; there was a series of flood prevention schemes across local authorities that SEPA prioritised in accordance with a set-out analysis. Going forward, the task is to set out what cycle 2 governance looks like and to ensure that there is a gateway process for schemes progressing through the system.

Colin Beattie: How do you engage with councils on existing projects such as the Musselburgh flood protection system, which is in my constituency? A number of schemes that I have looked at, including that one, started at one size and gradually grew legs and became much bigger. As far as I can see, those changes are developed locally, and it seems that there is no Government co-operation, oversight or input into that.

Roy Brannen: I might bring in Will Burnish from Moray to explain the process of local authorities' ownership and management of schemes. The Scottish Government does not oversee all the projects across the local authorities; the projects are for individual local authorities to take forward. However, my colleagues Michelagh O'Neill and Anne Aitken might say a little more about our role in the period since 2015 in looking at the available funding and the totality of projects that are coming through in that system.

Michelagh O'Neill (Scottish Government): I will go right back to the Flood Risk Management (Scotland) Act 2009, which moved us from a position in which a community would be flooded and then a scheme would be designed to respond to that flood. The 2009 act shifted us from that reactive approach to a more proactive one in which SEPA assesses the risk through a national flood risk assessment and there is then a cyclical process of developing plans and strategies and then delivering actions, including flood protection schemes but also other things.

As part of the first set of plans, there were 40 flood protection schemes. Another change under the act was that, whereas, prior to 2009, ministers had to legally confirm every flood protection scheme that went forward in Scotland, that is no longer the case. The 2009 act made it easier for local authorities to take forward projects by themselves, so it simplified the process. That means that, by and large, the delivery of flood protection schemes is a local authority responsibility, and they take schemes the whole way through the process. Ministers will become involved only if a scheme is notified to them, and that happens only when there are objections to a scheme in specific categories. In that case, ministers take a decision on whether to confirm the scheme.

In that process, there is a delicate balance between allowing local authorities to get on with and deliver their projects, because they are best placed to do that, and appreciating that the money is provided on a national basis and that there needs to be oversight. It is quite complex, but, over the past 10 years, we have worked closely with COSLA, recognising that there should perhaps be a little more scrutiny of how the money is spent and controlled. We have a funding working group that involves the Scottish Government and COSLA to look at the affordability of the programme of schemes and to put in place measures to control that. That has included things such as progress deadlines. If schemes have not made progress by a certain point, they are removed in order to improve affordability. We are still working on the affordability improvements with COSLA and others.

I will pass over to Will Burnish, who can maybe talk about some of the local complexity in developing the schemes, which are all very bespoke.

Colin Beattie: I am keen to understand the relationship between the work of the local council and the body that is providing the funding, or a

great part of the funding, which is the Government. There seems to be an element of isolation.

Will Burnish (Moray Council and Scottish Collaboration of Transport Specialists): I can talk about that up to a point. When you receive your capital grant and start up your scheme, you work through that process and, as you go through, estimate the costs each time. The challenge with all flood schemes is that you start off with an initial idea that you think will be satisfactory and will work, but, as you work through the detail, you get more information from the modelling—for example, the number of properties involved might increase—and, once you have more detailed information, you might find that the area is bigger than you originally thought. You start with the SEPA data, which gives a broad national picture but, as you start getting down into the detail, things change.

You also have to deal with objections, which could mean that you have to change the design or the results of the design, and the costs increase as you find out bits of information. For example, there might be asbestos on sites, or the ground investigation might mean that what you thought you could build in one place does not work any more, so you have to move it. The costs can accelerate quite quickly.

There are also changes in some of the basic information that you use. For example, climate change figures have increased. If you started a scheme five years ago, it is likely that the climate change figures will have changed in the intervening period and will now point to more flooding, which means that the scheme will have to be slightly bigger or different, so the costs will go up.

There is quite a long window for taking a flood scheme right the way through—it is normally a minimum of five years. It takes a couple of years to design it, and, if there are objections, it might take another year to resolve those. If you cannot resolve them, there will be an inquiry, which will take another year.

That is why the costs go up. Each year, we liaise with the Scottish Government and give our returns showing where we think the costs will be and how much they will be. That is in the hope that, in the long term, the capital funding will come through to deliver the project. There is constant liaising and sharing of information during the year. However, as has been pointed out, there has been no oversight to give a bit more control, which is what the audit report picks up. The funding working group is actively looking at that to find a solution that works and to put more governance processes in place.

We must remember that, in 2015, the funding matched the requirements and what people thought the projects would cost. At that moment, when the 40 or 42 projects were put forward, the belief was that the funding and everything else was appropriate and met the need. Decisions made then would probably look different if we had not had that approach of thinking, “We can only do 40 projects and we have enough money—perfect.” If we had had 60 projects and only enough money to do 40, that might have changed the decision process at that time. There were complex things from 2015, and we now understand the effects. We have to look forward and think about how we are going to change those.

Colin Beattie: Given that you say that the average major project takes approximately five years and that, during that time, costs will probably escalate—as you say, you find things that you did not expect and so on, so the cost goes up—at what point during those five years do you get certainty that you will have enough funding for the scheme? That process in itself is not cost free, because there will be consultancies and other work going on, which cost money.

Will Burnish: In the current model, the funding carries on throughout the process. At the moment, the funding is given through the general capital grant in an order that I think some of my finance colleagues or colleagues from the Government could speak about. The funding comes through the general capital grant, and then the council manages the money to continue delivering the scheme through the general capital grant. It is not a ring-fenced pot of money, because, as you work through the project, the costs bend and flex depending on what you find out. For instance, if there is an objection, the project cost might be stalled for a year, because you are spending time answering questions and providing information rather than doing design or build work. Therefore, the cost for that year might be less and it might escalate again the next year.

Although we say that a project takes five years, in the current flood risk management cycle for the plans, which is cycle 2, a lot of effort has been done to split out the work, to ensure that the design work is done with the intent to build in the next cycle. That is a big shift from the previous cycle, in which we tried to design and build within the cycle. We found that, as it takes five years and the cycle was six years, it was actually quite difficult to do that.

Colin Beattie: Could a better mechanism be put in place to manage cost escalation? That is obviously a big issue at the moment, but the fact is that, over any five-year period, you are going to get inflation built into materials and all the rest of it. Could that be better managed?

10:00

Will Burnish: The funding and governance groups are looking into processes to better manage that and understand the risk. All the local authorities appreciate the challenges that are being faced. There are better mechanisms that can be applied, but it all needs careful thought, because, at the same time, we do not want to say no to something that will have viability for a community. We have to think about community need, too, so that we are not saying no to a project early on as a result of a governance process when, actually, a little bit more work and cost might get us to the end of it.

There are opportunities to make a change and have better governance, but it all needs to be carefully thought out, to ensure that the money is spent appropriately and in the right way instead of the project being stopped too early or being allowed to go too far. It is all about finding that balance.

We also need to look at how funding goes from the Government to local authorities and who picks up what bit of the tab at what time. We have to be quite careful about that, because you have to remember that local authorities get different-sized capital grants. I am from a local authority that gets a very small capital grant, and looking at the value of its schemes from 2010 onwards—there was £100 million for the Elgin flood schemes, for example—I would suggest that it probably could not stomach making that sort of money available over three or four years, given that it is such a large amount of its capital grant. Others, on the other hand, might be able to absorb those costs. Therefore, we have to be careful about how big the capital grants are within each local authority, because we do not all get the same grant.

Colin Beattie: I think that this is a question for Mr Brannen. Looking at the existing schemes and the schemes that are currently being considered as part of cycle 2, can you tell us when funding certainty will be in place for those projects?

Roy Brannen: That is the challenge with the timescales that have been set by Audit Scotland, which I mentioned at the very outset and which include a six-month timeline for the funding mechanism. Clearly, we will have to wait and see the United Kingdom Government budget at the end of this month before we can go through our own budget, spending review, infrastructure investment plan and pipeline as well as work out with COSLA colleagues a funding mechanism and a structure around that. I think that that will be quite difficult.

What we have managed to do so far as part of cycle 1 has been to agree, in collaboration with COSLA and ministers, a process of certainty of funding over a 10-year period as well as that approach to autonomy, if you like, with regard to the funding coming through the block grant and how that is used. We now have to develop a new system, and the flood advisory service provides the foundation for the sort of gateway processes that would be suitable to enable both ministers and COSLA leadership to better manage the funding that will, no doubt, be negotiated through the next spending review process.

Gareth, do you want to say a bit more about that?

Gareth Dixon: I just want to support Will Burnish's comment about the purpose of cycle 1 being to target councils that were typically smaller and that would have had difficulty in funding large-scale flood protection schemes. It is perhaps worth outlining that particular purpose, but I will pass over to my colleague Mark Boyd to talk a bit more about the financial element.

Mark Boyd: Going back to a point previously made by Will Burnish, I think it is important to note that having more cost certainty—or what I would regard as transfer of risk—comes at the point when the final tender costs come back. Throughout the process, you use various cost indices to project what the costs are going to be, but that is ultimately tested by the market. What we have found, certainly in a number of schemes, is quite a significant differential between what we had projected versus what the market actually brought back. There is a host of factors in that regard.

I would say quite openly that, in the actual funding mechanism, the current intervention rates are funded 80 per cent by Government and 20 per cent by councils. From a council perspective, the key thing is certainty of funding and understanding the actual cost implications over the medium to long term. Councils can plan for that. Coming back to the point that was made about a gateway review, I think that that is pretty critical to the process, and ultimately it also has to be aligned with the prioritisation of schemes.

Looking at this through a finance lens and trying to manage financial resources, I would say that the criteria that are set, once they are agreed and finalised, should also set the prioritisation of schemes across the country. There are, I know, a number of factors in that respect. The process that you then go through takes you to a point where you have tendered costs, which, in turn, let you know what you are dealing with financially and on what timescale. Ideally—and I appreciate that the Scottish Government has a number of competing priorities for its capital resources—that could then lead to funding certainty that would enable councils to support the delivery of these schemes.

It has been, and it is, a very complex process, and it has been influenced by the timing of the development of these schemes in individual councils. However, the critical thing moving forward is having a gateway review process that brings us to the point of having tendered costs—but, again, supported by what we see as the prioritisation of schemes according to the criteria. That is very important.

Roy Brannen: I have one other comment to make about the process over the next period. We are working with the Verity house agreement and the fiscal framework that has just been published. Therefore, ministers and COSLA leadership will need to work through things in accordance with those documents and policies to determine the cycle 2 process and the governance around it, recognising that those agreements have been put in place by both parties.

So, there is still a bit of work to be done. However, as I have said, depending on what level of governance and what gates are put in place to better manage cycle 2, we see the flooding advisory service, ultimately, as being the improvement from where we were in cycle 1. One of the first tasks of the governance group is to work that through. We have funded SEPA to come up with some scoping options for the flooding advisory service and bring them back to the group, to be taken through our normal clearance processes.

Colin Beattie: Some of Mr Boyd's comments lead on to my final question. There has been some suggestion that the criteria for assessing major flood schemes might favour more affluent areas. That might be because the criteria look at capital values or whatever; I do not know what the criteria are, but that is the suggestion that has been made. Which criteria might be used to appraise investment in future flood schemes in terms of value for money, but also taking into account inequalities and wider benefits? Perhaps Mr Boyd might like to comment on that.

Will Burnish: I will respond—and I need to start from the beginning, I think. Having read the report, I understand that there is a belief that the funding goes to affluent areas. However, when officers look at these projects initially, we do not look at house prices; we look at the house type and the depth of water going through the house. After all, it is the amount of water that goes through a property that creates the damage. It might seem that a large detached property will obtain more funding if you look at it as a property. However, when we look at the land space, we see that eight or nine terraced houses might generate more damage for the same depth of water.

Therefore, we always start with the type of house and the depth of water and use national averages to work out those damages; we do not say, "Okay, this particular area of Aberdeen or Moray has more expensive properties compared with others." It is all about the depth of water and the type of house to start with—that is the basis on which you build your scheme. As you work through the detail, there might be some skewing when you start to look at, say, capping property values, but, initially, you look at whether the project itself is viable. That is not based on house prices; it is based on the type of house, the depth of water and the square meters that the house covers.

In my opinion and view, that approach does not skew to more affluent areas. Indeed, when you look at some of the schemes that have been done, you will see that a lot of the flood plain work has been carried out in areas that are not affluent. Those are areas where housing stock was needed from the 1900s up to the 1960s; because the cheap land was in the flood plains, that was where a lot of the housing stock was built.

I appreciate that the approach can be slightly skewed, but the starting point is that the scheme is based on the type of house and the depth of water in it. If you imagine a row of terraced houses versus a single detached property on a big plot of land, the terraced houses will attract more damage to start with, which forms our basis when we work through our projects.

You can then start getting a bit more into the complexities. By that time, your costs are going up and so you look for every benefit that you can in order to keep coming back to the same ratio. We look at all the added benefits, even in the current schemes. When you bring the costs through, you look at what else the project brings. For example, does it protect roads, utilities or properties? Are there any other add-ons that you can bring to the project?

It is all taken into account at the start, but, going forward, you can look at the benefits as well. It is about how you cost those up in order to make them worthwhile and get the right points and the right prices.

Colin Beattie: That is helpful. Thank you.

The Convener: Following up on the last point, the issue is sometimes whether that matrix has unintended consequences. Certainly, reflecting on the evidence session that we had with the Auditor General and the Accounts Commission, it seems that some study might be useful—it could be done by the Government or by an academic institution—to see whether there is any kind of correlation.

To Mr Burnish's point, if more housing for working-class communities has been built on flood plains, it might validate the point about where the resilience is being carried out. Conversely, the

anecdotal evidence in Audit Scotland and the Accounts Commission's report suggests that there might be a skew. More organised middle-class communities are certainly sometimes very good at getting decisions to be made.

Mr Ó Néill, do you want to come in on that point?

Diarmuid Ó Néill (Scottish Government): On that point, a study was done—forgive me, I cannot remember which academic institute did it—that showed that where flooding damage is less than 30cm in depth over two years, it costs £1,800 per adult; where the flood damage is a metre or more in depth, it costs £4,100 per adult. I say that just to augment Will Burnish's point about the difference in flooding depth.

The Convener: If you can share any of that information with the committee, it would be useful. The cost issue was raised in the report, which is why Colin Beattie asked the question about it.

Roy Brannen: On that last point, you highlighted a gap that was raised at the last committee session. We will take that away to the governance group, look back at the 31 schemes and carry out a quick piece of analysis to satisfy the concern about whether there is a skew. I do not think that there is, but it would be useful to analyse that before we settle on cycle 2 and the criteria for prioritisation. In 2015, the criteria touched on the economy, the environment and social impact. We need to ensure that whatever we decide to prioritise in the next cycle, no skewing can occur as a result.

The Convener: Thank you. That is very helpful.

I will now bring in Graham Simpson to put questions to you.

Graham Simpson (Central Scotland) (Reform): I will ask about funding, but, before I do so, I want to pick up on a couple of things that you said, Mr Brannen. You mentioned the flooding advisory service. Can you tell us when you expect that to be set up?

Roy Brannen: I will let Anne Aitken say a little more on that, because she leads on it.

Anne Aitken (Scottish Government): As Mr Brannen mentioned, this year we have given some money to SEPA to do a scoping of the options for the flooding advisory service, which we expect to be reported on by the end of the year. From that, we will take the options to ministers and take things forward from there.

I expect that we will have a flooding advisory service in place for the next financial year, albeit that it might be developing its role throughout that period. By the start of the next financial year, we expect decisions to be made on which body the service will be placed within and what its key roles will be.

Graham Simpson: It will be early next year—is that right?

Anne Aitken: Yes.

Graham Simpson: Okay.

Mr Brannen, you said that you found a couple of the recommendations to be challenging from the point of view of timing. Which ones were you referring to?

Roy Brannen: One is to do with cycle 2 and funding. I have now extensively covered the timing of the budget and spending review process, as well as the normal process of reaching agreement with COSLA leadership and the formal approach that the Government will take.

If we were to try to do that between the UK Government budget at the end of November and our Scottish Government budget, factoring in six months from the time of publication would mean February, which would be an extreme challenge. I am just flagging the fact—Gareth Dixon will probably agree—that it will take a bit longer to get that set right than the six months that is identified in the Audit Scotland report.

10:15

Graham Simpson: Okay. Fair enough.

I go back to funding. We have touched on major schemes. The biggest scheme, which has not been started yet but is in the pipeline, I hope, is Grangemouth. By the way, anyone can answer this question.

Mr Burnish referenced that schemes could take five years, but Grangemouth has already taken far longer. There was an initial public consultation as far back as 2018, but we still have not agreed who is going to pay for it. It could cost north of £600 million. It is clear that Falkirk Council cannot afford to pay for that. It is a huge scheme—it will be the biggest in Scotland and one of the biggest in the UK if it goes ahead. Can anyone tell me how that should be paid for?

Roy Brannen: I cannot cover that today, but Anne Aitken can probably say where we are in the process in relation to Grangemouth, the approvals and the next stages. I think that the committee heard at the previous evidence session that the scheme had been taken off the normal cycle and a task force had been set up. That task force has now concluded its work and has reported to Falkirk Council leadership and Scottish ministers on identifying the elements of the scheme that focus on residential protection and the phasing of that.

Anne can perhaps say what will happen next.

Anne Aitken: The next stage for the Grangemouth scheme is that, following formal notification and a decision by Scottish ministers that it should be dealt with through a local hearing, it will be taken forward by Falkirk Council.

As colleagues have said, the exceptional scale and cost of that scheme led to the decision between COSLA and ministers to take it out of cycle 1 so that it did not skew the entire affordability of that cycle. The work of the task force was to consider how we could work with the council on making something affordable so that we could move forward to deliver resilience for local communities. The task force looked at the residential schemes to see whether elements of them could be implemented in chunks without having adverse effects on each other.

The task force did that work so that when we moved into the next budgetary cycle, we could take forward specific elements of that scheme as and when they are affordable, rather than trying to find a way to secure a one-off £600 million or whatever point we are at now.

The next steps definitely relate to a local hearing, and that is the stage that the council will take forward.

Graham Simpson: You are not telling us anything that we did not know already. You have said that, in your view, it might be done in chunks rather than as one big scheme.

Roy Brannen: The task force looked at how to prioritise the residential aspect and what that might look like for different schemes. It was for Falkirk Council to decide how it would prioritise coming out of the hearing stage.

Graham Simpson: That all comes back to what we have been discussing, does it not, Mr Brannen? We have discussed with COSLA already today the issue of funding. For big schemes, small councils—or even large councils—could not possibly afford £600 million if that is the end result. It is a scheme of national significance. It is really important that the Government works with councils to decide how a scheme of that scale should be funded.

I know where we are. There is a local inquiry, and I know about the task force. However, at the end of the day we need to agree on who is going to pay for it, do we not?

Roy Brannen: I think that I have covered that in relation to the process that COSLA leadership and ministers will need to agree in relation to the funding for cycle 2 and the schemes that will be considered as part of that. I cannot say much more than that. I am not sitting here today and saying that the scheme will definitely be funded through that mechanism, because I just cannot do that. We are about to run it through a budget process, a spending review, an infrastructure pipeline and an infrastructure investment plan. Quite rightly, ministers have to do that independently first and then again with COSLA leadership.

Graham Simpson: I refer you to paragraph 65 of the Auditor General's report, bits of which were quite extraordinary. First, it says:

> "There are significant gaps in data in relation to the annual allocation of money to councils for flooding by the Scottish Government".

It goes on to say:

> "The Scottish Government does not publish annual allocations to individual councils for major flood schemes or general flooding activity. The funding is provided via the General Capital Grant, therefore the Scottish Government does not monitor how annual allocations are spent by councils."

Why on earth not?

Roy Brannen: Again, coming back to 2015, that was the agreement that was set—£42 million was agreed by COSLA leadership and Scottish Government ministers. It was funded through the local government grant, which gives local government autonomy to spend it in accordance with prioritisation. It is not an area that I am directly involved with, so I do not have oversight of that £42 million—it is not in my budget portfolio. It is a local government settlement issue, and it involves a decision to be taken between ministers and COSLA leadership.

Graham Simpson: Perhaps that is a question for COSLA, then.

Gareth Dixon: Because that is a finance question, I will pass it to my colleague Mark Boyd.

Mark Boyd: From a pretty simple perspective, as soon as there is confirmation of funding for individual schemes, they are reflected in the capital plans of individual councils, and those capital plans are then subject to annual approval at individual councils' budget times. That is just a quick run-through of how the process runs from a council perspective.

Graham Simpson: I will stick with you, Mr Boyd. Paragraph 65 of the report goes on to say:

> "Councils provide high-level reports on expenditure through Local Finance Returns but this does not provide a detailed breakdown and no collective figures are published for flood expenditure.
>
> Stakeholders have highlighted that there is a risk that funds allocated for flooding within councils may have been redirected to other priorities."

That is quite a claim. Has that been happening?

Mark Boyd: There is an argument that says that the general capital grant allocation that is made available to individual councils is there to fund the 20 per cent of the cost of flood schemes that councils are due to pay. However, because that funding is allocated through a general capital grant, it competes with a variety of other council priorities, so although the money is within the general capital grant allocation, it might not necessarily be used directly to support the flood schemes.

Graham Simpson: What about the sentence on stakeholders saying that there is a risk that funds for flooding may have been redirected to other things? Is that actually going on?

Mark Boyd: I interpret that reference from the perspective that, because the allocation is a general capital grant allocation rather than a specific grant, there is an inherent risk that that funding could be directed to something else.

As far as the schemes that have gone through my local authority are concerned, the allocation that was part of the general capital grant was allocated to the delivery of the flood schemes within my council area.

I apologise, convener—the point that I am making is that, because it is a general capital grant allocation, in essence, that means that it is up to the council to decide where that funding ultimately goes. As I said, that can compete with a variety of other investment priorities within the council.

Graham Simpson: So the statement in the report could be true.

I have a question for SEPA—that is you, Ms Paterson. Are you aware of any building projects that have been blocked because of a SEPA objection on the basis of the risk of flooding?

Nicole Paterson: One of our key roles is to respond to planning applications. In 2024-25, SEPA provided advice on 1,500 planning applications, and 98.4 per cent of those were determined in line with our guidance and advice. I will turn to Alex Flucker for more detail on projects that have been blocked because of a risk of flooding.

Alex Flucker (Scottish Environment Protection Agency): I will expand on that. We fulfil a statutory role for the Government as one of the group of stakeholders that local authority planning departments call upon when there is a potential flood risk. As part of national planning framework 4, when a local authority asks us to assess a planning application, we assess it against the standards that are outlined in national planning framework 4 and the policies and details that it contains. The cases that we receive from local authorities are the most complex cases, which local authority planning officials and experts do not have the necessary capability and skill sets to assess. We look at the most detailed cases, and we apply the knowledge of our technicians and specialists to those 1,500 cases per year.

The statistics that Nicole Paterson gave you are correct, but I can provide some additional information. Typically, 1 per cent of the cases that we receive are not aligned with NPF4 and policy schedule 22. In those cases, we would make a recommendation to the relevant planning authority on the basis that the application is not aligned with the national policy and that the outcomes could bring about a risk. That is the key information to share.

Over the past couple of years, as policy schedule 22 has been embedded, there has been a teething process, which is the case for any new national policy. We have seen a slight increase in the approval rate of planning applications that we have advised are not aligned with policy. In those cases, our recommendation has been overturned and the application has been approved. That has crept up from 1 per cent in 2022 to somewhere around 3 to 4 per cent now.

Graham Simpson: Are those cases in which you have said, "You shouldn't be building there, because there's a risk of flooding," and councils have said, "Actually, we're going to ignore that—we're going to approve it"?

Alex Flucker: I would not necessarily describe it in that way. We would assess that there was a risk of flooding, either now or in the future, because that is our role—to avoid building the wrong houses in the wrong places, so that communities are not flooded now or in the future. The decision-making process that councils go through can sometimes involve decisions being escalated to ministers through the planning and environmental appeals division, and the slight increase in the overrule rate, from 1 per cent to the current rate of 3 or 4 per cent, can typically be attributed to an aspiration to see local development take place.

Graham Simpson: I want to quote a couple of other things from the report. First—this relates to an earlier question from the convener—paragraph 32 says:

> "Not all critical responsibilities for managing flood risk are covered by legislation. For example, the Act does not set out who is responsible for the maintenance of Sustainable Urban Drainage Systems and for managing erosion enhanced flooding (Exhibit 2). This could mean important areas of activity may be missed."

Do any of you know who is responsible? Mr Flucker, I am looking at you and you are looking at me, so perhaps you can answer.

Alex Flucker: Sure—I can answer that. Again, that partly stems from national planning framework 4. There have been agreements that new-build developments will not be connected to the sewerage and drainage network that is run and operated by Scottish Water. Run-off and surface water from most new-build developments of a certain scale is collected by a SUDS scheme.

We think that the responsibilities in relation to those schemes are fairly clear. SEPA has a role in the margins, due to our regulatory role in relation to the environment. With regard to the maintenance of those schemes, we are aware that, if a SUD system lies within the boundary of a single property, the landowner or the occupier is responsible for it. Otherwise, it is typically a municipal responsibility, which, as we understand it, is handled in collaboration with Scottish Water.

10:30

Graham Simpson: Such schemes are often not within the curtilage of one landowner—they might cover an estate—so paragraph 32 is saying that the legislation is not clear on who is responsible for maintaining them. Do you accept that point?

Alex Flucker: I do not think that the Flood Risk Management (Scotland) Act 2009 could have forecast decisions in the national planning framework in 2022, so that legislation is not necessarily the right place to look for such confirmation or clarity. However, I think that there is clarity among the various stakeholders around the room. Local authority colleagues might be able to speak about SUDS in more detail.

Roy Brannen: I am stretching my engineering background a bit—I cannot remember whether SUDS were prevalent in national planning policy in 2009, so there might well be a timing issue in that regard.

A memorandum of understanding is in place between Scottish Water and local authorities on the division of responsibilities relating to run-off from properties, residential curtilage, below-ground infrastructure and above-ground sustainable urban drainage systems. In my estate in Larbert, a number of SUDS are in place, and those parties understand who is responsible for maintaining them. Not all local authorities have signed up to the MOU, but the vast majority of them have done. That is well known.

Will Burnish might want to say a bit more about the situation in Moray.

Will Burnish: I can add a little more to what has been said. A number of the developments are maintained by factors. Although it is seen as a flooding issue, the relevant legislation is section 7 of the Sewerage (Scotland) Act 1968, which relates to the drainage of property—not to the flooding of downstream properties, although it is there to prevent that—and should be considered in combination with the Roads (Scotland) Act 1984 in relation to road drainage, so it is quite a complex area.

The position will depend on whether a memorandum of understanding has been signed by Scottish Water, the local council and the developer of the estate. In a lot of cases, planning statements in planning applications refer to maintenance regimes so that, if systems are not maintained in the future, people know what is meant to be maintained. It is quite a difficult and complex area, because how a situation involving an individual property or two properties is dealt with is different from how one involving a housing estate is dealt with. The issue relates to Scottish Water and local authorities rather than to the 2009 act, so it might be worth asking Scottish Water that question.

Graham Simpson: Well, Scottish Water is not here.

Will Burnish: Yes, but it would be best placed to answer.

Graham Simpson: Perhaps someone from Scottish Water is watching, and they can get back to us.

In the interests of time, I will leave it there.

The Convener: Thank you. Joe FitzPatrick has some questions for the witnesses.

Joe FitzPatrick (Dundee City West) (SNP): I am keen to ask about some community aspects. Obviously, flooding has a major impact on local communities and, if we are planning to prevent future flooding, such work could also have a huge impact on them, so it is really important that all partners engage local communities in such planning. If you went to Brechin in the aftermath of the flooding there, you would have been able to speak to lots of people who said, “I knew that wasn’t going to work.” Clearly, those people did not feel that they had been engaged.

In contrast, in relation to the work that is being planned in the St Mary’s area of my Dundee constituency in partnership with SEPA, NatureScot, the local council and Scottish Water, it feels as though huge effort is being made to engage with the community so that people understand what is happening. Sometimes, folk might think, “We don’t get flooded, so why is this happening in our area?”, whereas other people might think, “Why are you not doing anything here?” How do we ensure that folk understand what is going on and feel part of decision making so that they maintain interest in the long term? I

know that SEPA is really involved in what is happening in Dundee.

Nicole Paterson: We have talked about roles and responsibilities. As a national agency, we are clear that we can engage with communities in a number of different ways. I will start at the top.

When preparing the 14 flood risk management plans, we consult and liaise with local advisory groups, and we work with local authorities, local communities and local partnership groups. Our work in that area is led by 14 regional flood resilience managers—they are experts who do that work day in, day out. The purpose of that work is to capture the national flood risk management picture so that, at a strategic community-based level, we can identify where the greatest risks are. Importantly, that work is also about raising awareness and preparedness within communities.

We employ another four area flood advisers, who provide advice to communities on flood warning and resilience. We know that when we start to see from our five-day advance forecast, our three-day forecast and our work with the Met Office that a flood is about to arrive, the more warning and preparedness that we can bring to a community, the better, because we are trying to build resilience. It is important that we are shifting the language from protection towards resilience. We try to provide as much warning and resilience as we can. People need to understand the actions that they could take to protect their property, their livelihoods and their lives well in advance. As well as working with people on preparedness, we work on the provision of post-event support.

In response to Mr Simpson's question, we have touched on the work that we do to advise local authorities on planning, in an effort to avoid flooding well in advance. We do many national campaigns that are aimed at raising awareness of flooding and how people can better prepare themselves. We have social media contact leading up to, during and after flood events. We have direct contact with 42,000 Scottish citizens who have signed up to receive our floodline alerts.

Of course, those are often times when there is already significant challenge and concern. You mentioned the Brechin example. At any point in time, we publish a wide range of advice and data on our website. For example, in 2024, 900,000 users visited our website for flood information. I have talked about the floodline service.

You touched on the point that those communities that have, unfortunately, experienced some degree of flooding are very well aware of the risk, are on the front foot and are in contact with us and, at a more local level, with their local authorities, but it is also important to recognise that there is always more that we can do. In those communities that have not yet experienced flooding—we know from the work that we will publish in December that more communities will be at risk of flooding as a result of the impacts of climate change—we want to build more awareness to help to build resilience.

As an organisation, part of our work under the public sector reform agenda has been to self-fund a programme of transformation, and one of the key strands in that programme is our flood services review, which is under way. Principally, we are looking to enhance the delivery of our services as an agency and ensure that they are resilient, and to ensure the strategic value of our flooding-related services. In my opening remarks, I said that the work that we do in relation to flooding is the most important thing that we do for Scotland, and indeed it is.

The review aligns with our broader organisational goals of operational excellence and ensuring that we work closely with our partners in delivering flood resilience for Scotland. It is important that that work becomes much more customer-centric. The information is there, and we want to make it more readily available. In terms of roles and responsibilities, we want to make sure that the information from us, the Scottish Government, Ready Scotland and local authorities—which, for individuals in communities, are often the most trusted source of information—is cohesive and available for all residents of Scotland.

Joe FitzPatrick: That is brilliant. I was just checking who to put my next question to when Diarmuid put his hand up. There is also the aspect of more natural forms of flood prevention and how we help people to understand that a wall will not always be required.

Diarmuid Ó Néill: I wonder whether you could indulge me a bit, so that I can do a before and after. Some of these points will be blindingly obvious, for which I apologise.

Up to 2019, Scotland's average winter rainfall increased by 20 per cent. To state the blindingly obvious, flooding is an interaction with the land or the topography. One of the key things that the Scottish Government has done is invest in a LiDAR—light detection and ranging—programme, which will map the topography of Scotland. That is 100 times more accurate than Ordnance Survey maps. That is really important in relation to Nicole Paterson's point about preparing a community, being resilient and having access to that data, which will be open access for everybody. That is a bit of the before.

The forestry aspect is important. Again, to state the obvious, trees collect some of the water that falls out of the atmosphere and hold that in the

soil, which means that it does not run off on the land. In the past few years, the Scottish Government has invested £185 million in around 55,000 hectares. Since 2020, we have invested £90 million in restoring peatland, which, again, is about holding the water where it is. Those things are the before and the after, if you like.

Another important point, which Roy Brannen referred to at the start of the evidence session, is that we have invested £950,000 in eight buoys around the coast, which are going to plug 90 per cent of the gaps that we have, because 227 plans that relate to resilience mention waves. At the moment, we have wave buoys only in the south-eastern part of Scotland. Therefore, those buoys will help us to do that in your constituency, Mr FitzPatrick. Those things are really important with regard to putting all the pieces together.

On what happens after a flooding event, last year I met somebody from Brechin who was still deeply traumatised by what had happened to them. It is quite impactful to listen to local people who were in River Street at the time and who were impacted by the flooding. Public health colleagues have put together £160 million for more than 4,000 community groups for mental health. Public Health Scotland also has an action plan that covers drought, heat and flooding. The plan looks at seven areas, one of which is inclusion. That work is built on the Government's public engagement plans.

That whole package includes important steps on peatland, forestry, flooding prevention, data and wraparound care at the very end of the process.

Joe FitzPatrick: Could Gareth Dixon or Will Burnish talk about local government's role in that, specifically focusing on how you are ensuring that, when there is engagement, it is not just those with the loudest voices who are involved but all communities? There is evidence that suggests that more disadvantaged members of communities are more affected by flooding events.

Will Burnish: Community engagement is a very challenging area for local authority officers—I can give personal examples. We undertook a community engagement event in a village to talk about property-level protection and what people can do to protect their properties. We had three officers there for two hours—we deliberately held the event in the afternoon before school finished and then through to the early evening—and two people turned up. Six months later, there was a big coastal event in Moray. There was then a lot of reaction, with people saying that the council was not engaging or talking to people. We had been engaging, but nobody came. We then did another presentation—in the exact same room as the previous event—and 75 people turned up. It is very challenging; we can engage only if people want to engage with us.

For that reason, Moray Council has changed its approach to how it engages on flooding. For example, we held an event in Aberlour. We were asked a number of times to go straight to the community to talk to people, but we held back a bit so that we could gather all the information that we needed. That meant that we arranged an event with not just flooding officers but our roads department, SEPA and Transport Scotland, because the A96 runs through the centre of Aberlour. The whole of the Scottish Flood Forum also turned up, with a plethora of property-level protection measures. So, we organised an event where attendees could obtain information, ask questions and speak to numerous representatives, rather than just two or three people.

Recently in Moray, we have found that having all the bodies at an event—and holding back a bit until we have answers to all the questions—has had a marked impact. That is better than people turning up, being spoken to and us merely saying, "We'll take that away" in response to everything. However, again, the community must want to be engaged. I also have examples of communities that we have worked with on and off for six years, but which have not submitted any responses to SEPA's consultation events for the next six-year cycle of the flood risk management strategy. That is the community's opportunity to be involved; we push it out to them, we tell them that it is going on, and we say, "Please respond to the consultation", but we receive no responses. As a result, we cannot take their feedback and build it into our plans. It is very difficult if communities do not want to engage. As we have spoken about, there are people who shout louder—people who are more vocal—but our approach is to look at where people are at risk. Sometimes, we cannot get to them after we have tried everything to get them in the room.

Moray Council has another example in relation to the regional plans. We did road shows—in car parks and town centres—with a mobile caravan so that we could go around and talk about the plans, but that engagement still did not work. People have to want to be engaged. I appreciate that doing so is difficult for disadvantaged people. We are trying everything that we can, but we can do only so much with limited resources.

Joe FitzPatrick: I am certain that a lot is being learned from the project that is under way in Dundee, but, based on your experience, how do we ensure that what is learned is shared across Scotland?

Will Burnish: That is quite easy for me to answer. Every year, the Scottish Government funds a conference that all flood practitioners, all

SEPA staff and significant numbers of community members attend. Best practice is shared over those two days. It is an absolutely brilliant event that allows all the practitioners, alongside the community, to engage with each other.

10:45

I am on the steering group for the event. When I started 10 years ago, very few communities were in attendance. Now, we have community groups and insurance people—Flood Re also turns up—so it is a more positive event at which to share information, and community people have presented at it over the past three years. That is a really good showcase of how the work on flooding in Scotland is driving forward.

Roy Brannen: To add some numbers to that, the most recent event involved 65 presenters and 600 attendees—400 in person and 200 online. The event has grown in success over a long time, and it is really good for practitioners to be able to share their experiences.

Anne Aitken can say a little bit more about what else we can do to bring the community along with us. We fund the Scottish Flood Forum, which reaches out to 124 groups. Its website has a really good geographic information system. If you click on any of the groups, you are given a contact email and phone number that enables you to engage with the group on flood preparedness and recovery in your area.

One key element of the resilience strategy is to develop a framework for community resilience. The governance group will take that forward and develop the framework to support communities. Overall, the key principle of the national standard for community engagement is to design engagement correctly and ensure that it is applied consistently across all our activities. We need to build engagement at the outset, remove barriers to inclusion and set our aims for what the engagement will be focused on. We can then drive forward the event, engagement or whatever format is being used to deliver the best outcomes, so that any change that occurs has people and communities at its heart.

Anne Aitken: It is probably worth highlighting the work of the Scottish Flood Forum, which is a third sector organisation that the Government has funded since 2009. It reaches out and supports individuals and communities before, during and after a flood. For example, in the post-Babet recovery period, it was involved at community centres, and it supports 124 community groups across Scotland. It also has a flood bus, which is funded by Flood Re. Its team goes into communities and talks to people about the property flood resilience measures that they can take and what they can do to avoid or mitigate flood risk. Over recent years, it has been hugely successful at getting into those communities.

More broadly, the Scottish Government recognises the huge traumatic experience and psychological effects that people go through with flooding. We recently commissioned one of Scotland's centres for expertise to do further research on what other practical actions we could implement to mitigate the negative mental health impacts of flooding. We are also doing some work so that individuals and households can work out the best model of flood plan to develop. That is often seen as a starting point to build awareness and help people think about what they can do to protect their homes.

Joe FitzPatrick: Thank you. I think that you have answered all my questions.

The Convener: That is great. Jamie Greene, the committee's deputy convener, joins us by videolink.

Jamie Greene (West Scotland) (LD): Thank you for allowing me to join remotely this morning. It is much appreciated.

I have listened very carefully to the questions that have been asked, and I have a few other areas to cover, but I want to clarify a few things that have been said. First, I want to press on the issue of gaps in information and data, which came up earlier in the meeting and was raised in the report by the Accounts Commission and the Auditor General. The report is clear on the matter in referring to specific circumstances. Paragraph 35 says:

> "there is currently no consistent, comprehensive national monitoring system in place to assess the condition of existing flood-protection schemes."

The report then goes on to explain that, in practice, that means that, because information about whether the existing schemes are performing effectively is not available, it is not clear if they are providing the protection that they were presumably meant to provide. It is an open question, but who wants to address that specific criticism?

Roy Brannen: I will come in first, and I will then ask Nicole Paterson to pick it up. I mentioned in my opening statement that we have provided SEPA with £600,000 this year to develop that understanding and create a database of more than 200 flood-protection assets across Scotland.

Nicole Paterson: I touched earlier on one of the gaps that Mr Greene has highlighted. As we have already heard from colleagues in COSLA, responsibility for the operation, construction and oversight of flood defence schemes rests with the local authority, as does responsibility for their on-

going management and maintenance. For us, the most important factor is how we include the flood defence schemes in our modelling work. I will ask my colleague Alex Flucker to give you a bit more detail on our modelling work and on the importance of what we see today.

I refer to the previous evidence session, when the Auditor General used the example of Brechin, where the scheme is designed for a one in 200-year flood. From the data that we are now gathering, we can see how the shift that we have seen in the climate over the past couple of years is significantly changing the performance of schemes.

Alex Flucker: In our modelling work, we operate a six-yearly cycle—we touched earlier on some of the things that we produce. We start with potential vulnerable areas. From a community perspective, our recommendations have gone down a level, from catchment-level potential vulnerable areas to community level ones. That approach has been successful and highly championed.

The modelling then moves on to our flood risk assessment for Scotland, which we do every six years. Our most recent assessment, which we did in 2018, highlighted 284,000 homes that were at risk. We are about to publish the updated assessment, using the most up-to-date and best available techniques, models and information, including climate change projections.

The things that impact our modelling and the risk assessment that we carry out in the flood risk assessment for Scotland include cognisance of the quality, the extent and the height of flood defence schemes, and of how efficable they are in the face of modelled river-flow dynamics, which is really what we are trying to manage—we are trying to manage water running down hills and into communities.

The United Kingdom has a very scarce skill set in terms of the skills that it takes to model and design flood schemes. Quite often, SEPA or local authorities across the country and across the other countries of the UK will use a very small group of consultancies to deliver the design work. The models and methods that they use can be updated at variable times between different consultancies. In Scotland, SEPA expends a degree of effort in working in collaboration with local authorities and the consultants that they procure to understand the methodology and the modelling that is taking place, so that we can work that back into our models and assessments.

The gap is called out in the audit report, which is a really good distillation of some of the challenges around our on-going understanding of flood defence efficacy, the condition of flood defences and whether they are graded to offer protection from the level of climate change and river-flow dynamics that we see now and that we will see in the future.

We were on the front foot in the work that we were doing, as was the Scottish Government, which provided us with funding for that work. We had already identified the risk, and that is why, using funding from the Scottish Government, we are already engaged in work to digitally map the flood defence schemes across Scotland. That will be done in a way that is sustainable, so that we can use it in the future. We need a programme of work that can continually review and monitor those flood defences.

The implications for our mapping and modelling work are that, if we do not understand the quality or efficacy of flood schemes, there is a risk that our flood risk assessments, which are at the strategic level, will overestimate or underestimate the extent of protection that exists in Scotland, which might cause the on-going actions that are taken by local authorities or by SEPA to protect communities to either be misdirected or set at the wrong level. That is why we are now working hard to close those gaps.

Jamie Greene: Thank you for those answers, which go some way to addressing the point about how you are responding to the audit report, which is welcome.

Paragraph 39, on the next page, has another specific critique that I would like to point you to. It is about the joined-up approach to managing flooding both within and between organisations. Specifically, the report says:

"there is a lack of joint action within and between organisations."

It refers to a

"separation between engagement with communities on flood schemes and engagement on broader resilience issues",

as well as

"a lack of long-term strategic planning"

and

"disjointed delivery".

Those are all fairly negative comments on what is supposed to be a joined-up approach. The fact that we have so many agencies represented on the panel, and that there are many others involved that are not on the panel, is testament to how complex flood management is. Ultimately, whose responsibility is it to ensure that all those disparate organisations are working together, communicating well and agreeing a joint national plan, which clearly does not exist at the moment?

Roy Brannen: The flood resilience strategy is the road map for how we try to bring together what has been a productive set of arrangements to date with our stakeholders in managing flooding across Scotland, although we recognise the gaps that Audit Scotland has identified. At the risk of repetition, I will ask Anne Aitken to say a little more about how we make that strategy into an implementation plan and the function of the governance group and the sub-groups that lie below it, so that, as you say, there is greater clarity than we have at the minute on how all the bodies work together.

Anne Aitken: Obviously, our governance group has a wide range of partners. In the strategy, we recognise the great degree of interaction between flooding and a number of other areas of policy, and all the bodies that need to be round the table to look at that. In taking forward our implementation plan for the strategy, we are looking to bring together all those parties.

Moving on from 2009 and 2015, there was a recognition in the strategy that we needed to broaden out the range of flood-related actions from something that had primarily focused on engineering solutions to much wider things. By doing that, we needed to draw in a number of other areas that have a contribution to make in relation to things such as natural flood management, peatland, forestry or whatever. That is the kind of approach that we are very keen to take.

Diarmuid Ó Néill: I will follow on from what Anne Aitken said. The paragraph that Mr Greene referred to in the audit report mentions civil contingencies. About five or six months ago, we did some work with colleagues who are in the room, the organisations that they represent and colleagues from SGoRR—the Scottish Government resilience room—and ran what we rather blandly called tabletop exercises. The point was to identify gaps relating to flooding episodes or events and who has responsibility for those. That work, which is on-going, is part of the learning from Covid and our attempts to learn about civil contingencies in the middle of emergencies. We welcome that finding from Audit Scotland, as it gives us the mandate and momentum to keep going with the work that is coming out of the tabletop exercises.

11:00

Jamie Greene: You will all—[*Interruption*.] My apologies—it is difficult to see who is speaking because I am not in the room. I have a lot of questions and not everyone needs to answer every question.

I want to point to the Bellwin scheme, which is one example of where a bit more work could be done. The Government could have a contingency fund available to local councils, because, as we have heard, it is often local councils that bear the brunt of dealing with the issues first-hand—and that get the most criticism. As you will see if you read some of the news reports on recent storm events, it is local councillors and officers who get the first wave of criticism from local residents—perhaps rightly so in many cases, but equally their hands are often tied when there is simply no capital funding available. Perhaps this is therefore a joint question for the Government and COSLA.

Use of the Bellwin scheme funding has gone up massively over the years, presumably as a by-product of requests for funds, due to more incidents. Is there an argument for having a bigger pot of cash sitting there, which is not necessarily agreed up front for the council but which could be used by any local authority in the country at any point to support communities on a small-scale and immediate basis? I will talk about compensation in a moment, too.

Roy Brannen: The Bellwin scheme is well set out between the Scottish Government and local authorities. If there were to be a review of it, advice would need to go to ministers and the COSLA leadership on what that might look like.

We have just published our flooding resilience framework. On the back of where we were after storm Babet, it sets out the additionality in relation to support for residential and business properties and what the trigger for that support would be. It provides a bit more clarity on what would happen in a similar circumstance in the future, where there is impact across three local authority areas. We provide some idea of the size and scale of an event at which the additional support might be triggered. It would be for local authorities to approach the Government to signal that they would like to see the support triggered.

Gareth, do you want to say more about the Bellwin scheme? It is certainly not on my radar as something that ministers, or indeed the COSLA leadership, are looking to look at, but that might be something for the future.

Gareth Dixon: It is right to highlight that we would need to take that matter to COSLA leaders to get a decision, but my colleague Mark Boyd might have something to add.

Mark Boyd: From a local government perspective, the Bellwin scheme is fit for purpose. However, again from the local government perspective, the issue is the threshold at which the funds can be accessed. I cannot remember exactly the threshold up to which the expenditure must be borne by the council, but we would

support any review of the threshold that is attached to the use of the scheme.

Jamie Greene: In that case, I hope that my question was positive and has inspired the possibility of looking again at the scheme.

That brings us to a wider issue, namely what people expect in communities that are affected by a flooding event. It is fair to say that, in some areas, the response has been quick and has got better over the years, as a result of a change in direction and focus. In other areas, however, communities have absolutely felt let down.

The example of Brechin was raised earlier, and there are anecdotal stories about specific households and businesses there that felt that they were treated very poorly, not just by local government, but by national Government. In Cupar, after storm Gerrit, which unleashed havoc in that community, some businesses were waiting five or six months for compensation, and many were not even eligible. Even for those that were eligible, the level of the compensation grants was extremely low.

I appreciate that there is no open-ended pot of cash for compensation and that the scheme must be focused and targeted at the communities that are most affected by flooding. However, is the money getting there fast enough, and is there enough of it? If the answers to those two questions are no and no, what representations will officials make to ministers on improving that? After all, we need to do better for communities.

Roy Brannen: I have already referred to the flooding resilience framework, which has just been published and which gives more clarity on when an event would trigger support and what the level of funding support would be. The intention is to build on storm Babet and put more of a structure around support to ensure that things happen more quickly than they did in the course of that event and during the clear-up.

That is probably where we are at the minute on the question whether that is sufficient for future flooding. I guess that that is a question for ministers as they consider what might come forward.

Anne or Diarmuid, do you want to add anything?

Diarmuid Ó Néill: The issue was raised at the round table that we had with all the organisations as part of our civil contingency and response approach. We really welcome the examples that you have highlighted, Mr Greene. I think that you talked about your question being “positive”, and it is definitely something that we will take away and look at, because there is a recognition that we do need to do something.

Jamie Greene: Okay—I will not labour the point.

With regard to flood defence systems being fit for purpose, we have already spent a huge amount of money, with costs doubling or trebling from original expectations. Of course, new schemes are in play, and we know how expensive they are, but one of the big tests will be whether they actually do the job that they are intended to. The proof of the pudding will be very much in the eating, because what local communities really care about is whether a system will protect them, their homes, their businesses and their high streets.

The Brechin example is interesting. That scheme, which cost £60 million and was completed in 2015, was described to the people of Brechin at the time as a one-in-200-year defence system, but it lasted only eight years before it was breached. I appreciate that the answer to my question will be, “Well, it was an unexpected and extraordinary weather event that caused the breach”, but you have been talking about all the money that is spent on consultants and how few people with world-class expertise there are. How can we spend tens of millions of pounds on a defence system that does not do its job after less than a decade? My concern is whether it will happen again, and I do not think that simply blaming the size of the waves and the force of the wind is good enough.

Roy Brannen: I will hand over to Nicole Paterson, Alex Flucker and then Will Burnish, but there are two things to highlight from my perspective. First, we have to design for what we know is in front of us and what we can forecast. My background is in engineering, so I know that a one-in-200-year event was the previous test that we would have designed for. Clearly, significantly more than what had been designed for occurred in the event in Brechin.

Diarmuid Ó Néill has touched on this already, but the fact is that the intensity and severity of the storms that are occurring are increasing year on year. We only need to look at hurricane Melissa just now—I think that the storm surge was over 3.5m in some locations in Jamaica. That is the issue for all practitioners, engineers and forecasters: we need to get ahead as best we can and ensure that any investment that is made in physical flood protection is able to do its job.

I would also say that hard flood protection, on its own, will not be the entire solution to the issues. The intention of the flood resilience strategy is to move away from fixing flooding problems to creating flood-resilient places, and that is going to take the efforts of individuals and communities as well as some tough decisions being made on planning in the future. The scale of the challenge,

with the move from 284,000 to 400,000 properties at risk, will not be solved by hard flood protection schemes alone.

On the design element, I will ask Nicole Paterson or Will Burnish to say a little more about the evolving status of what happens in engineering terms when there is a breach of the likes of Brechin.

Nicole Paterson: I will start with the one-in-200-year event point. Flood defence schemes are designed to have one-in-200-year protection, but the data comes from the past. Over the past decade—more importantly, over even the past two to three years—we have seen a significant shift in our weather patterns. Last year, for example, our agency issued the highest number of flood warnings and alerts to Scotland for the entire time that the scheme has been in existence, so we are seeing significantly different patterns of weather.

When the scheme in Brechin was designed to be one in 200, it related to the one-in-200-year events of the past. If we were to redesign the scheme again today to make it reflect the new one-in-200-year protection, it would look vastly different. As the director general said, much of the work—and the importance of the naming of the flood resilience strategy—is about how we build more resilient places; it is less about out-and-out protection.

It is becoming more important that we understand that flood defence schemes, as they have been named in the past, are part of a suite of protections that are used to build community resilience. It is about buying communities time, which is why the work on nature-based solutions is important. As my colleague Diarmuid Ó Néill explained, some of the solutions that we are looking to enact in upper catchments will slow the flow of water down towards any community, buy time and increase resilience.

The efficacy of nature-based solutions has begun to be proven. We have begun with the Eddleston Water project, for example, and we have two pilot public sector reform projects—the Dee and South Esk—which we will bring together with partners at Cairngorms National Park, NatureScot and Scottish Water so that we in Scotland can get real examples of how we can improve community resilience by integrating both nature-based solutions and traditional engineering solutions. There is a place for both, but it is important that we better understand how they interact in any particular community.

We should bear in mind that the work is being done against the backdrop of what we now understand to be the increased duration and intensity of rainfall in the winter, and of rising sea levels, which have given rise to a myriad of different flooding impacts in communities that we need to be cognisant of. On the flipside, Scotland is seeing more incidents of scarcity—which is not unconnected.

Alex Flucker: Those points are really well made. The pressures on communities and the ability to protect them will only get harder, because we are seeing more rainfall than ever, and we will see more rainfall than we are seeing now.

The most up-to-date statistics, published by the Scottish Government on the Adaptation Scotland website, show that average annual rainfall in Scotland in the past decade was around 10 per cent higher than the 1961 to 1990 average, and winter rainfall over the same period was about 29 per cent higher. There is no doubt that we are seeing more rainfall and that the challenge faced by communities will get bigger and harder—that is the first simple thing to consider.

In Brechin, the flood defences had held back a flood or heavy rainfall months before storm Babet, so the town was protected from those floods. Do flood defences work? They absolutely can and do, but when we see very scarce, rare peak flows in the context of the changing climate that Nicole Paterson mentioned, the defences can succumb and be overtopped.

The next thing to call out is the design process, which local authority colleagues touched on earlier. The process involves consultation, which can add delay, time and increased costs, but it can also lead to retweaked designs. Communities that live around rivers and the coast often choose to live there because it is beautiful, but they do not want to live behind walls. Sometimes, designs of schemes can be compromised, but the local authorities that take forward those designs are in a hard space because they are positioned between considering the efficacy and risks, given what they are trying to hold back, and the strong desire of the communities that they are there to protect. That is a tension that can have an impact.

Nicole Paterson touched on nature-based solutions. There has been a shift in direction in the Scottish Government's flood resilience strategy to broaden the suite of tools and techniques available to stem the flood risk in communities beyond just concrete, grey, civil-engineered infrastructure and to make nature-based solutions part of the mix.

11:15

As for the evidence that we are seeing, we are looking across international partners at the people who are ahead of us and at the pilots that we have in place. For example, the Eddleston Water project that Nicole Paterson mentioned has proven to have reduced peak rainfall flows by 5 per cent

through a range of leaky dams or ponds upstream, though not in the upper reach of the catchment, and is also delaying peak rainfall reaching the community by between three and seven hours. That gives communities that are trying to respond to a deluge of rain valuable time to get prepared, put out sandbags and close floodgates.

There is real value in those approaches, but that is all that I want to add for now.

Jamie Greene: Time is tight, so you will excuse me for not bringing in any more responses, but thank you for the responses that you have given me.

I guess that what has hit me most from your comments on the nature of flood defence systems is that the one-in-200-year efficacy model is based on historical data. Most people will be quite surprised by that. Historical data is of course helpful and useful, but surely we should be designing things based on our knowledge of what the future is going to look like. That is not actually that difficult to do these days—I know that SEPA, for example, has done some good work with the University of Strathclyde on artificial intelligence models—but my point is that if you base your plans on what has already happened, you will be designing a system that is not fit for the future.

The Convener: That was perhaps more of a philosophical contribution, Jamie, and I think that it nicely ends that section of questions, if that is okay with you.

Jamie, you are unable to see this—we all can—but Will Burnish wanted to come in on your last question. I will give Mr Burnish the final word in this session.

Will Burnish: I have just two comments. First, on the one-in-200-year model, we are developing flood defences based on likelihood of event, not duration of life. In other words, they are designed on the basis of the likelihood that some event will happen.

Secondly—and I know that this was a question for SEPA—a number of flood defences are not designed to one-in-200-year level in Scotland. Back in the early 2000s, the principle was one in 100 years, so there are schemes in place that have not been designed to the later standard. I just want the committee to be aware that that might be the standard today, but it was not the standard in 2000, 2005 or 2010. Not all schemes are designed to the one-in-200-year standard; it might be one in 100 years or even as low as one in 50 years. It is important to take away the fact that the one-in-200-year standard is not the case for every flood scheme in Scotland.

The Convener: Thank you very much, and thanks to the deputy convener for that final series of questions.

We have run out of time, so I will draw this morning's session to a close. Before I do, I take this opportunity to thank all of you—Anne Aitken, Diarmuid Ó Néill, director general Roy Brannen, Michelagh O'Neill, Nicole Paterson, Alex Flucker, Mark Boyd, Gareth Dixon and Will Burnish—for your contributions. You have all had an opportunity to give us evidence this morning, and we really appreciate that.

There was some scepticism as to whether we needed so many witnesses for one session, but I think that it has proved useful in giving us a fuller version of how you see things and the perspectives of your different organisations and parts of government. It has certainly given us as a committee a lot to consider, so thank you all very much.

I now move the meeting into private session.

11:18

Meeting continued in private until 12:04.

This is a draft *Official Report* and is subject to correction between publication and archiving, which will take place no later than 35 working days after the date of the meeting. The most up-to-date version is available here: https://www.parliament.scot/chamber-and-committees/official-report

Members and other meeting participants who wish to suggest corrections to their contributions should contact the Official Report.

Official Report
Room T2.20
Scottish Parliament
Edinburgh
EH99 1SP

Email: official.report@parliament.scot
Telephone: 0131 348 5447

The deadline for corrections to this edition is:

Wednesday 3 December 2025

Published in Edinburgh by the Scottish Parliamentary Corporate Body, the Scottish Parliament, Edinburgh, EH99 1SP

All documents are available on
the Scottish Parliament website at:

www.parliament.scot

Information on non-endorsed print suppliers
is available here:

www.parliament.scot/documents

For information on the Scottish Parliament contact
Public Information on:

Telephone: 0131 348 5000
Textphone: 0800 092 7100
Email: sp.info@parliament.scot

The Scottish Parliament
Pàrlamaid na h-Alba