



Northern Ireland
Assembly

Committee for Infrastructure

OFFICIAL REPORT (Hansard)

Role of Department for Infrastructure Rivers:
Department for Infrastructure

15 May 2024

NORTHERN IRELAND ASSEMBLY

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Members present for all or part of the proceedings:

Mrs Deborah Erskine (Chairperson)
Mr John Stewart (Deputy Chairperson)
Mr Danny Baker
Mr Cathal Boylan
Mr Keith Buchanan
Mr Stephen Dunne
Mr Mark Durkan
Mr Peter McReynolds

Witnesses:

Mr James Kelly	Department for Infrastructure
Mr Jonathan McKee	Department for Infrastructure
Mr Gary Quinn	Department for Infrastructure

The Chairperson (Mrs Erskine): I welcome to the Committee, from the Department for Infrastructure (DFI), Mr Jonathan McKee, director of rivers development; Mr Gary Quinn, director of rivers operations; and Mr James Kelly from rivers operations. Thank you very much for joining us. It is good to see you here today. We have your written information, so I invite you to introduce yourselves and talk briefly to the issues for about five minutes, after which I will invite questions from members. OK? Thank you.

Mr Jonathan McKee (Department for Infrastructure): Thank you, Chair. Good morning, and good morning, members. First, we welcome the opportunity to present the work of both rivers directorates. We are conscious that you have received the written briefing, so we really only want to outline some of the highlights and draw attention to some particular points of interest, in order to leave maximum time for questions, if you are content with that, Chair.

The Chairperson (Mrs Erskine): Yes.

Mr McKee: There are two rivers directorates: an operations directorate, which is headed by my colleague, Gary Quinn, and a development directorate, which I head. We are part of the water and departmental delivery group. You will recall that, in early March, you received a briefing from the group as a whole. We are two divisions within that overall group.

We are the statutory authority for drainage and the management of flood risk from rivers and the sea. That is an important distinction, because we do not have overall responsibility for surface water flood risk. We are also responsible for the implementation of the rivers elements of the flood risk management plan (FRMP), which is a requirement of the floods directive regulations. We do not have

statutory responsibility for water quality or coastal erosion issues: people often assume that DFI Rivers has responsibility for those matters. In the papers, you will see our overall structure and the break-up of responsibilities, so I will not draw particular attention to that.

It is important to highlight the scale of flood risk here and how big the problem is that we are trying to manage. At present, 45,000 properties are at risk of flooding, and, when you factor climate change into that, that figure rises by approximately a third. Therefore, there is a very significant and real flood risk here.

Nevertheless, the Department has been proactive in how it has managed that risk. Flood risk management plans were developed and published in 2015 and were refreshed in 2021. There are three pillars in the flood risk management plans that give us direction in how we do our work: prevention, protection and preparedness. The prevention pillar is to do with how we advise planning authorities in the management of flood risk. The protection pillar details our maintenance activities, our investment in flood alleviation projects and our capital investment in our existing assets. The preparedness pillar deals with our preparations for emergency response and our community resilience work.

We are conscious that we have high-level documents. The flood risk management plan is our strategic document, and the long-term water strategy sits above that. We have good policies, procedures and operational practice for our staff to follow. However, there was a need for a bridging document that allowed staff to understand how their work contributed to those higher-level plans and strategies, and we developed the DFI Rivers six-year strategy. It has six strategic priorities, which are listed in the written briefing. At the top of that list is "sustainable staffing structure and expertise". It is not just about capacity or staff numbers; it is also about the expertise that we need in order to manage flood risk here. We can maybe elaborate on that when we go to questions and brief you further on how we develop our flood risk management expertise here.

The second strategic priority is investment in flood risk management infrastructure. That is very important, and we need to keep doing what we have been doing: investing in our existing assets and providing new flood alleviation projects. The continuance of service delivery is one of our priorities. It is very often the forgotten piece, but continuing to do what we do — the maintenance activities and the routine flood risk management work — is vital, and it is important that that gets a focus and that we do not just pursue the new things all the time.

As an organisation, it is important that we are adaptable and outward-looking. Often, there is a sense that there is greater expertise in other jurisdictions, but we have been mindful and careful to develop our own expertise here. We engage with flood risk management organisations in the Republic of Ireland, England, Scotland and Wales and even further afield to share with them what we do and to gain some understanding of what they have learnt and how we can use that in our work.

The document is a bridging document between our high-level strategy and our working practice. It is also a listening document, so that staff can understand how we, as a senior team, can bring problems and difficulties that they may face into a document that focuses on delivery and the resolution of issues.

We covered planning and flood risk management quite well in our March briefing, so I do not intend to highlight that. It is a very important part of what we do. The cheapest way to manage flood risk is to avoid it in the first instance, and the planning process is vital to that. Capital investment in flood risk management infrastructure continues. Last year, we invested £20.5 million. That was well up from what we were investing, say, five years ago — £7.8 million was invested then — and we have plans for further investment, subject to budget allocations.

It is important to note that our past investment in flood risk management work has already provided substantial benefits to communities. Newry suffered considerably during the flooding at the end of last year, but the impacts would have been much worse had it not been for the investment that we had made there. Properties to the east of the town hall would have been badly impacted, but they were protected by the flood alleviation scheme that was built a number of years ago.

The Belfast tidal flood alleviation project is ongoing. It is a difficult project, but it will offer protection to 1,500 homes in Belfast from tidal flood risk. The Committee is welcome to visit it to see the work that is going on. It is an interesting project. A range of other projects are ongoing in a number of areas. No doubt we will touch on those as questions emerge.

Who has responsibility for flooding emergencies is a key area that needs to be considered. We have done a lot of work over the past decade to develop our response capability and fulfil the role of lead Department. Later in the briefing, I may refer to what that role is and is not, because there are some important distinctions to tease out. We have also been proactive in community resilience work, developing a strong network of community resilience groups in areas of known flood risk here.

Despite the work that we have undertaken to manage flood risk here, whether through maintenance, capital investment, emergency response or community resilience, it is entirely possible that there could be a rainfall event of such magnitude that it would overwhelm natural or man-made drainage infrastructure or overwhelm our ability and our multi-agency partners' ability to respond. It is not possible to prevent all flooding from occurring. We are seeing that increasingly with more intense or more prolonged storms.

A key question for members may be on what the Department has been doing since the flooding in October and November 2023. The emergency response to that involved not only us but our multi-agency partners, and many properties were protected because of that. A review is under way, in line with the processes surrounding civil contingencies, and a phased approach has been adopted. First, there was engagement with our multi-agency partners, which took place in March, when we had a debrief with them. Then, there was engagement with elected members and stakeholder groups at the end of March. It has always been our intention to engage with members of the public and businesses affected by the flooding in order to seek their views and involve them in the review process; my colleague Gary is leading on that and will cover it later, no doubt, during questions.

Flood forecasting is a key next step for us. I mentioned that we have a strong platform of community resilience groups. Providing those groups with further and better information on flood forecasting will be a vital next step, and doing that will leave us well placed to manage flood risk here as well as we can.

Flood risk and climate change are linked and are obviously an increasing focus for us. They drive a lot of our activities. We have flood maps that show present-day floodplains and climate change floodplains. We take climate change into account whenever we develop flood alleviation projects, and we are reviewing our technical guidance on the allowances that we need to make for climate change.

Looking to the future, there will be an increasing need to use sustainable urban drainage systems (SuDS), particularly soft SuDS. It will be important that a proper legislative framework is put in place for that and that there is a proper approval board so that we can manage and control the use of soft SuDS in the future. There will be further need for integrated modelling, and that means that we will be working not only with our own modelling teams but with partners in Northern Ireland Water, so that there is an integrated approach to modelling in some areas of combined flood risk.

Communications are key in the management of flood risk. It is important to communicate areas of risk, as well as what we, in government, can do to manage that risk, what we cannot do and what society needs to do, so that we can support it to manage the overall risk from flooding.

That is a very quick overview, Chair. I am conscious of the time.

The Chairperson (Mrs Erskine): Thank you, Jonathan. We appreciate that.

You talked about the responsibilities that DFI Rivers has. You do not have statutory responsibility for water quality, water recreation or coastal erosion issues. Would it be easier if you had statutory responsibility for them? Some of those responsibilities sit with other Departments. Does it perhaps hamper your ability to do work on those issues?

Mr McKee: It does not really hamper our work to manage flood risk. The Northern Ireland Environment Agency (NIEA) and colleagues in DAERA have a strong focus on water quality. We have good links with them. As we develop our projects, we take into account environmental considerations and liaise with our colleagues. If there were opportunities to improve water quality as part of our work, those links are well established, and we can do that. It does not really hamper or hinder us in the management of flood risk.

Coastal flood risk is our focus. Coastal erosion does not necessarily always cause coastal flooding; that is perhaps misunderstood in some cases. We enjoy quite a hard coastline here. Coastal erosion is an issue that needs to be focused on, but, again, it is not one that hinders us in doing what we need to do in the management of flood risk from the sea.

The Chairperson (Mrs Erskine): In the 6 March briefing, the Committee was told that 45,000 properties were at risk from flooding. The Committee asked for a breakdown of where those properties were concentrated, by council area and that type of thing. We have not seen a breakdown of that yet. It would be useful if you could provide that to the Committee, so that we can see where those properties sit and how that correlates with flood modelling and management plans and everything like that.

You said that about 14,800 properties were at risk from climate change flooding. Are those in areas that have not yet flooded but are projected to flood as a result of climate change?

Mr McKee: It is more complex than that. We develop flood maps that show where, we believe, the present-day flood risk is. That is largely done by computer modelling, assuming a flow in a particular watercourse and determining where that flow goes when it rises to a particular height and what land becomes flooded. When you start to model for climate change, you increase that flow: that increases the volume of water in the river, which then increases the area of land that could flood. It is a predictive modelling technique.

Some of the areas that have been identified as being in the climate change floodplain may already have flooded, because there could have been a flow in a watercourse that is actually greater than the understood present-day risk, and, therefore, the area of land flooded has been greater even than the present-day outline. It is a slightly more complex picture than saying that a climate change area has not yet flooded. Obviously, the correlation would be that a present-day floodplain would be more at risk than a climate change one, in a normal scenario.

The Chairperson (Mrs Erskine): Your regional community resilience groups are across 40 communities in Northern Ireland. It would be good to see where those resilience groups are, on the back of those 45,000 properties. What are the criteria for setting up those groups? There is flooding in parts of my area from time to time. What are the criteria for establishing such groups?

Mr McKee: In order to establish a community resilience group, we have focused on whether there is a known flood risk, whether the area has flooded in the past, and whether there is an appetite in the area for the establishment of a community resilience group. Sometimes, in the past, we have made contact with elected Members, and they have taken a leadership role in the community, which has been really good. We have then built on that and provided them with information to develop their community plans. There have sometimes also been text alert systems, so that they can be warned when river levels are getting particularly high, and remote sandbag storage. That broad process allows us to work out where we should be engaging. We have also identified areas of risk and proactively tried to establish a group; we have not just waited for a community to come to us. We have rolled that out as best as resources allow. We have 40 community resilience groups at present. They are working well to varying extents. They are community groups that have their own focus and priorities. Their individuality is not in any way compromised, but we still support them to help to manage flood risk where we can.

The Chairperson (Mrs Erskine): DFI Rivers is a statutory consultee in the planning process. Will you outline what your current time frames are for providing evidence to planning authorities?

Mr McKee: We reply within 15 working days of the planning consultation having been received. The unit that deals with that workload is not fully staffed as yet, so, sometimes, we experience delays, but we aim for a 15-day response time.

The Chairperson (Mrs Erskine): You are aiming for 15 days. Are you meeting 15 days? You said that you are understaffed. Your aim is 15 days, but you are not meeting 15 days.

Mr McKee: No, we are not. Of that target of 15 calendar days, we are meeting only about 60%.

The Chairperson (Mrs Erskine): What is your longest waiting time? Do you have an indication of what you are looking at with some of that?

Mr McKee: It depends on the complexity of the consultation. Some of them could be a number of months. That might be because the application that we receive has incomplete information, in which case we seek more information and clarity. Some of them could be a number of months. As I said, our

ability to improve that performance is directly proportional to the staff whom we have in the unit and the number of staff who can respond.

The Chairperson (Mrs Erskine): How understaffed are you in that unit?

Mr McKee: About 30% of the structure is vacant.

The Chairperson (Mrs Erskine): What does that look like in numbers?

Mr McKee: I think that there are 12 vacancies.

The Chairperson (Mrs Erskine): Flood risk for properties and development in terms of planning is really important for people and homeowners. What recourse does DFI have if planning permission is granted against its advice on an area that it considers to be at risk?

Mr McKee: The decision ultimately to grant planning approval rests with the planning authorities. We provide our advice, but the decision is theirs to make. All that we can do is provide advice.

The Chairperson (Mrs Erskine): You will be aware of the water, flooding and drainage Bill. Will DFI Rivers have any additional powers or statutory duties as a consequence of that Bill? What level of engagement has there been between rivers directorates and DFI colleagues on the development of that Bill?

Mr McKee: We have very strong links with the water and drainage policy division. The water and drainage policy division sits in the one group. We work very closely with it. We were involved in the development of the Bill. It allows us to have substantive powers in relation to the homeowner flood protection grant scheme, which is good. The present scheme utilises powers to carry out experimental work under the Drainage (Northern Ireland) Order 1973, so it is good for us to have substantive powers to develop a grant scheme.

The Chairperson (Mrs Erskine): You have outlined close links, but have you had a lot of engagement on the development of the Bill? Have you been able to feed into it, and are you content that there has been sufficient feedthrough?

Mr McKee: Yes, absolutely.

The Chairperson (Mrs Erskine): OK. We will move to questions from the Deputy Chair.

Mr Stewart: Thanks very much for coming today and for your answers so far. The Chair has covered a lot of the key points, but I will touch on two areas, the first of which is the homeowner flood protection grant scheme. What is the budget line for that? How much funding is accessible? How many people have applied for it in the past year, and how many of those applications were successful?

Mr McKee: I will let my colleague Gary answer that.

Mr Gary Quinn (Department for Infrastructure): To date, we have spent just over £1 million on the homeowner flood protection grant scheme, and it has facilitated work on 140 homes. I can provide that information in a table, if that would be handier.

Mr Stewart: Yes, it would be good if you could provide the specifics in writing.

Mr Quinn: In total, we have had 200 applications, to the value of about £1.6 million.

Mr Stewart: Did you say that the total budget for that is £1 million, or have you had applications totalling £1 million?

Mr Quinn: We have had applications for £1.6 million.

Mr Stewart: What can you extend to in the worst-case scenario?

Mr Quinn: I do not have those figures at the moment.

Mr Stewart: If you could send them to us, that would be useful. Are the criteria the same for those who are affected by river flooding and those who are affected by coastal flooding?

Mr Quinn: Yes.

Mr Stewart: Could you outline the criteria?

Mr Quinn: A home has to have been flooded in the past 25 years, plus it must be situated in the area covered by our flood maps that has a 1 in 25 year flood event attributed to it.

Mr Stewart: Not to be parochial, Chair, but I represent East Antrim, and many people in Carrickfergus, for example, have been affected by rising tides there. Some have been successful in their applications while their neighbours have not. Some of the people whose applications did not succeed feel that their homes have been flooded as a direct result of floodgates having been put in for those who were successful, after which their applications were turned down. Is that something that you are aware of? Does it happen often?

Mr Quinn: No. The feedback from the protection scheme has been good. Certainly, in the case of the more recent events in the north-west, particularly Eglinton and Drumahoe, some of those measures have been effective. There are still lessons to be learned. It was an experimental scheme, as Jonathan said, and it is something that we are looking at post-flood event review, because we recognise that there has been an increase in applications in recent months, and, because of that increase, we want to look at governance and the eligibility criteria.

Mr Stewart: The scheme has been a success for those who were able to avail themselves of it. Those who were not able to do so feel that they have missed out on an opportunity and that they have been affected as a direct result of that. I will contact you directly about specific applications.

Mr Quinn: Absolutely. We can take on board specific examples.

Mr Stewart: OK. I asked you to provide those top-level figures on applications, because I sense from the evidence today, Jonathan, that we are likely to see more applications and that a departmental budget line might need to grow in order to meet demand.

Mr McKee: We have seen a sharp increase in applications since last autumn.

Mr Stewart: My final point is on the flood forecasting service. What preparation does setting up the service entail? Your overview states that similar jurisdictions have taken three to five years to implement such a service, which might indicate how long it will take the Department. What does implementation entail, and why does it take three to five years?

Mr Quinn: It is a detailed and complex area of work; maybe you have heard that about hydrology and rivers. It is about the evolution of DFI Rivers: we have been a drainage authority, and, recently, we have moved into being a flood risk authority. The information that we have had is geared towards knowing what our rivers are doing and has not been so focused on forecasting or prediction. For a flood forecasting centre, we need more people, we need a home and we need more data. That means more hydrometric information. We need more specialist meteorological information — we need to look up as well as down — and we need to pull all that together. Our experience is from site visits to the Scottish Environmental Protection Agency (SEPA) in December 2022. We also went to look at Met Éireann in March. Basically, it takes a long time to pull that data together in a meaningful way that provides you with accurate, timely and predictable information.

As well as that, the communication needs to be right. You need to get the communication to the public right and to communicate in a way that is effective for communities. I will relate that to two different flood-type scenarios. There is the thunderstorm-type activity, which you will have seen over the weekend. That is the harder of the activities to predict, and it can happen quite quickly, so you need robust information at hand very quickly to give out to the public. Then there are events such as that of autumn last year, which was a longer type of event, with heavily saturated ground and heavy rainfall that fell over areas that we were aware of but not to the level at which we could have predicted accurately. In those two scenarios, you would need different types of information. Building all that

takes time, and that has been the experience elsewhere. We would like to get to a basic model. We provide weather information at the moment. We have that for situational reports. When we were sitting in the middle of strategic command — or tactical command — within Rivers, during the flooding event, we were pulling together information about what was happening in Newcastle, Downpatrick and Newry. We have some of that information, but we need to refine it. There is a large data and information piece in and around that. There is also the matter of the people: we need specialists.

Mr Stewart: Thanks, Gary. You mentioned Scotland and the Republic of Ireland. Are they areas — or are there other areas — that you look to as being models of best practice? Can we try to replicate what has worked well for them and learn from their mistakes? I suppose that one of the benefits of coming to the party later is that, in respect of how you do things, you can see what has worked well elsewhere.

Mr Quinn: Absolutely. We are taking that lead. The Met Éireann system is very similar to that of SEPA in Scotland. We hope to cut some of the time frames short. We cannot be specific or give you an exact timeline. We are ambitious around this piece, however, and would like to move fast, but there are budget constraints. We have not yet been given a budget to move the flood forecasting centre forward.

Mr Stewart: Thank you.

Mr K Buchanan: Thanks for coming along, gentlemen. I have a couple of questions. John touched on the homeowner flood protection grant scheme. I have previously touched on the fact that the scheme covers money only in relation to the physical structure of the building — the house. Why can you not open that up to cover the back garden? I will use the example of rural areas, where flooding may creep up fields from rivers, and the homeowner does not get any support to put up a little mound, wall or whatever; they have to do that themselves. Why can you not open that scheme up to protect the house, but have it so that the money does not have to be spent on the house?

Mr McKee: When it was developed, the scheme was experimental, and it was important that the investment of public money was focused and controlled. It was focused purely on the building because that is where the primary risk is. That scheme has been running since January 2016. We need the legislation that we mentioned in order to develop a more substantive scheme. When looking at a more substantive scheme, we would look at the eligibility criteria, how it is administered and the measures that could be encapsulated by the scheme. Your suggestion is something that we would consider, but, as the scheme was originally established, it was —.

Mr K Buchanan: Can you do that quickly? Can you make the decision tomorrow and say, "OK. We are going to open that up and widen it"? What is stopping you from doing that?

Mr McKee: There needs to be a review of the existing scheme. We are hoping to do that review and complete it by the end of the summer.

Mr K Buchanan: What lessons have you learned? If that is one example — I am not saying that it is a lesson — what other examples would you put in place for that scheme, if you were to do a review tomorrow?

Mr McKee: The scheme is bureaucratic. It is bureaucratic because we have to have diligence around the administration of public money and grants. It was our first step into that area of work. Other jurisdictions have looked at what we do and consider the governance that we have around it to be something that they would desire. In looking at the scheme, we would be looking not to weaken the governance but to make it more flexible for adapting to flood risk, not just from rivers and the sea but from surface water. We would look at how we could streamline the administration of the scheme and, as you outlined, consider other measures that could form part of the scheme.

Mr K Buchanan: OK. The next point that I want to talk about, which the Chair has touched on, is planning and your responses to councils. I will come at it from a couple of angles: the flood maps and possible flooding due to climate change. I have touched on this before with you. If the council — Mid Ulster District Council, Fermanagh and Omagh District Council or wherever — goes against that, is there any comeback from an insurance company? Your advice could have been, "Don't build the house", but I have heard it said in committees, "That's a lovely fella. Give him the house", and the house is built on a climate change floodplain. What is the comeback?

Mr McKee: We have provided our advice. Any comeback would be for the planning authority to consider.

Mr K Buchanan: I do not mean to be rude, but what is the point in asking you?

Mr McKee: It is appropriate to ask about flood risk. It is one of the material considerations.

Mr K Buchanan: We get all these people saying, "He needs a house built", but, in five years' time, he is standing up to his knees in water saying, "You shouldn't have let me build my house here".

Mr McKee: We encounter that too when we respond to flooding. People have built houses in floodplains, and we respond to the flooding. We have provided advice.

Mr K Buchanan: Advice not to build them?

Mr McKee: Yes. To be fair to planning authorities, they take our advice on board in the vast majority of cases, but they have their own considerations. Ours is just one material consideration, but they have to weigh up the other factors that they consider. We are not sighted on those.

Mr K Buchanan: You give your advice to councils. I presume that you do not monitor what they do with it.

Mr McKee: That is correct.

Mr K Buchanan: You have given it to them, and it is up to them what they do with it. If you were to guesstimate the percentage of cases in which your advice is overruled, what would it be?

Mr McKee: I could not guesstimate, but I imagine that it would be a small number.

Mr K Buchanan: Why would any councils overrule? Why would they overrule your advice, unless, with respect, your advice is wrong? I am not saying that it is wrong. What is the point of asking for your advice if they do not take it?

Mr McKee: That is a planning matter; I am not sighted on their decision making.

Mr K Buchanan: Our next session will include evidence on validation checklists in respect of planners reaching out to you. You talked about a bit of toing and froing. Is there much toing and froing between planners — the councils — and you to get more information? Are you in the middle of that game of tennis? When people go on about planning, all we hear is that it goes out to consultation and then a response comes back — whatever length of time later — asking for more information, and it goes on and on and on. Have you fed into the validation checklist? Do you have a validation checklist that you send to councils with the information that you need?

Mr McKee: We have communicated what we need. In fact, we want to make further strides on that by putting a validation checklist on our web page, so that, if somebody wants to submit a planning application and knows that it will, possibly, be affected by flood risk, they will understand the information that we want from them. That is a way in which we can streamline the process and help to get the information that we need right first time. Some developers and agents are very good — they have worked with us for many years and understand the process — but some are less so. We are doing our best to try to explore what we can do to reduce the information gaps.

Mr K Buchanan: If planning for a house is passed tomorrow, in mid-Ulster, for example, and you have said, "No, don't pass it; that's a floodplain", or, "It's a possible climate change floodplain", but it is built and then floods, whom does the insurance company go after if it discovers that the house should not have been built and that the council had been advised not to pass it?

Mr McKee: We have provided our advice.

Mr K Buchanan: So, it would go after the council?

Mr McKee: I am not sure whom it would go after, but we have provided our advice.

Mr K Buchanan: I am almost done, Chair. What can you, as DFI Rivers, do? How can you say to councils, "This is our advice. On your head be it", in better language? I ask that because they are not listening. I could not believe it when I heard them say, "The guy's a lovely fella. He needs a house", when he was building it on a floodplain. What kind of planning is that?

Mr McKee: As I say, that is a matter that planners would need to address.

Mr K Buchanan: How can you — DFI Rivers — say, "You need to listen to our advice"?

Mr McKee: All we can do is what we do currently, which is give our advice and, when we engage with them, explain the consequences of flood risk. That takes place in some cases. If there is any strategic engagement with them, flood risk is, obviously, something that we highlight.

The Chairperson (Mrs Erskine): Is that OK, Keith?

Mr K Buchanan: Yes. I have one more point.

The Chairperson (Mrs Erskine): Yes, one more.

Mr K Buchanan: I want to talk about the Blackwater river. We have talked about this before. I understand that you do not deal with navigational issues, but you deal with dredging. Colleagues and I have been working with Armagh City, Banbridge and Craigavon Borough Council and Mid Ulster Council on this issue. I am, since last week, an expert on boats. *[Laughter.]* If boats cannot get up that river — we are talking about small boats that do not need a lot of water — water cannot get up it. Is there a problem with the flow of water in the Blackwater river getting into Lough Neagh? That is irrespective of navigational issues. I am talking about the volume of water to prevent flooding and the possibility of flooding.

Mr McKee: James and Gary will add more detail, but, generally, where a large river is going into a lough, a sandbar develops, and that can impede a boat getting up the river. It does not mean, though, that the river cannot convey the flows that it needs to convey out into the lough, because, as a storm arrives and the river level rises, the top water level of the river will rise above the sandbar, so the water will actually push out over the top of it

Mr K Buchanan: I cannot get my head around that. I am not saying that you are wrong — I understand your point — but I cannot get my head around it. If there is a blockage, it has to create a restriction.

Mr McKee: It creates a restriction only when you are dealing with normal flows and normal land drainage issues in the very close locality of where the sandbar is. With a raised flow as part of a flood, it would not make a significant impact on the overall flooding associated with that river.

Mr K Buchanan: This is my last point. How do we solve this problem with the Blackwater river? Last week, we brought it up with Waterways Ireland, and, no doubt, colleagues have communicated with DFI Rivers on this in the past. You are probably aware of the issue. How do we solve that? It feels like the net between McEnroe and whoever the other player is: the ball goes over my head every time, and we are not getting a solution.

Mr Boylan: Record that one. *[Laughter.]*

Mr K Buchanan: How do you solve it? I do not mean this to be cheeky, but people will say, "It is a river. It is your problem."

Mr James Kelly (Department for Infrastructure): It is a river. It is a natural system. I am not sure exactly, but the water coming down the Blackwater probably pushes about 20 tons a second out into the lough. As that river comes down into that narrow channel and reaches that wider expansion of water, it broadens out. Speed slows, and material drops out as it settles and forms that sandbar over a wider area. As the drainage authority, it is the flooding that we are mindful of. Our eye goes to the flooding and the protection of property and people from that. Blackwater can push a lot in front of it,

and it does. Close to where the Blackwater goes into Lough Neagh, there is a little cut called the Maghera canal. It is a little narrow cut a few hundred metres long. It goes off to the side really, and where Blackwater spills in and spreads out, it creates this effect going into Lough Neagh. That has been used as navigation for a long time. When I look at maps going back to 1830 or 1840, I see that it is on those. It has been there that entire time. That natural system exists. It will push through when more water is coming down and needs to go through it. As I said, as a drainage authority, our resource and our priority go to flood risk management and the preservation of life and property from flooding.

Dredging is coming up as a question, and it has come up in another question as well. As I said, it is a natural system. The river is a natural system. We monitor it and take care of blockages in areas where it might back up. We do maintenance and remove blockages that could be impeding the flow of a river. Dredging is a different thing. It is much more invasive. It is the excavation of a portion of the riverbed, and that will fill pretty quickly. It is the top water level that is the concern, not necessarily the bottom water level of the river. Digging a hole locally in the bottom of a river does not necessarily create much or any flood capacity. The river will restore its equilibrium. It will find its way back in again. It will find the level that it needs to be for the floodplain that it has. The river breathes out, and, in times of flooding, it breathes back in. That channel has been created naturally by the river and the processes that go on within it. Dredging is not the solution that some may think it is.

Another point to note is that the advantages of dredging can be limited, and it also needs to be considered in the context of other environmental impacts and regulations. There are other impacts associated with it. The Blackwater pushes out into Lough Neagh, which drains 40% to 43% of Northern Ireland. It is like a big bath with one plug and about six taps. They all come in: the Sperrins rivers and so on bring sand and glacial deposits. A large sediment load in a number of those rivers brings sand and gravel down into Lough Neagh and onwards to the Lower Bann and 30 miles on to the coast of Coleraine.

Mr K Buchanan: OK. This is not a question —.

The Chairperson (Mrs Erskine): We will have to move on. Very quickly.

Mr K Buchanan: You talk about preservation of life, but Lough Neagh Rescue cannot get down that river. I will leave it there.

Mr Boylan: I do not know where to start. I have never heard tennis being equated to Lough Neagh and Blackwater before, but we will go with that, Keith. Thanks for the entertainment.

I will come back to the rivers. I have three points from your presentation. First, will you give an update on what you mean when you talk about updating the climate change technical guidance? Secondly, will you give me an update on Newry? A survey is being carried out there, and I just want to know when that will report back. Thirdly, will you elaborate a bit on the adaptability and outward-looking engagement under your six-year strategy?

Mr McKee: I will answer your questions on the guidance, the adaptability and the Newry flood alleviation scheme, and my colleague Gary will cover the wider review of flooding, which will also look at Newry.

The climate change guidance is what we use when we are designing a project or developing our flood maps. It guides us on what scenarios we should consider, what emission scenarios we should consider as appropriate to make the assessment of what the climate change flows would be and, ultimately, what the climate change flood maps should look like.

The climate change guidance is based on 2009 projections. More recent projections were produced in 2018, and our departmental colleagues in policy division are working through that piece of work to determine the best options for us to consider to ensure that our maps are as accurate as they can be and that our flood alleviation projects are designed in the right way.

It is a complex piece. Climate change has some scenarios that are quite broad in their range, so it is important that we make the right choices. Those will be based on not only what other jurisdictions are doing but what is unique to us. That work is ongoing, and I suspect that, as we get more clarity, the Committee will have an interest in it.

Re the six-year strategy and adaptability and outward-looking engagement, the last time we were here, I was struck by your comment about the danger of silo working. Rivers is a small organisation. Compared with organisations such as Roads and Northern Ireland Water, we are smaller, but we have been given big responsibilities in the management of flood risk.

About 10 years ago, we recognised that we could not do it on our own. We needed to collaborate with others, build strong policies and links with planning authorities and do our best from our point of view. We need to work with councils and with the voluntary sector, such as the Red Cross, to respond to flooding, and we have done that.

We need to make sure that our delivery teams do not just, for want of a better expression, pick up the manual and follow it. We need to be alive to what is going on with our colleagues in the Republic, through the Office of Public Works, and what is going on in England, Scotland and Wales and even Europe. The floods directive, as you will know, was a European directive, and we had good links with some European counterparts there.

Our view is that the management of flood risk requires in-house expertise, so, if we bring consultants on board, it is largely to add capacity rather than capability. For us to be the intelligent client, we need to be adaptable and to integrate with others, and I have outlined some of the organisations that we integrate with, but we are also outward-looking.

Flood forecasting is a good example of where we are not knocking people's doors for the first time. We have long-standing relationships that we are now able to call on.

We need to manage the expectation around flood forecasting. We will not be able to forecast every flood on every river everywhere. No flood forecasting system can do that. However, it will be useful here because, unlike other jurisdictions, we developed the community resilience platform first so that our outward-looking piece here was to have an informed user base for a flood forecasting system, and that would become something that we would be able to develop. Those are some examples of where, we think, we have broken down the walls of the silos.

Your third question was about Newry. Gary will cover the review. The flood alleviation project has three phases. Phase 1 is the Greenbank industrial estate, and that is complete. Phase 2 is building flood walls or enhancing the flood walls that currently run through the centre of Newry. We have really good links with the council there, and it is taking forward a public realm scheme. There is an opportunity for us to integrate what we want to do with the council's public realm scheme around the town hall, and we are working through that to try to accelerate that element of the flood wall work. The remaining portions of the flood wall project, which is stage 2, are going through the business case development for the other elements. Phase 3 is upland storage, and that is something that we will face increasingly in our towns and cities. We cannot build our way out of managing flood risk. We will have to learn how to store water, and I am not talking about ponds and pools the size of this room; I am talking about substantial storage areas. That is what phase 3 will look like, and that will be a challenging, more long-term piece, but we have a vision to tackle that now so that we are managing the risk in Newry into the future.

Mr Quinn: I will speak about the flood review, folks. Chair, a few months back, we promised the Committee that we would deliver on a flood review by the summer, and we are on track to do that. Thankfully, that is progressing very well. The last piece of the jigsaw will involve open days on 25, 26 and 27 June in Portadown, then Downpatrick and then Newry. Those are open to elected representatives and the public alike, and they will be communicated through DFI and partner organisations. The flooding review is a joint piece between the Executive Office, DFI and local government. We have been running regular review meetings on that, and, prior to the open days, we have had stakeholder engagement sessions in leisure centres in the very towns that were flooded, and those sessions brought together people in affected communities in those locations. We have had very good feedback from those, and that will feed into the report.

The report is basically founded around two drivers that were contained in the terms of reference, and the two drivers are really a British standard that determines a post-flood risk assessment approach. That looks at the causation factors, the advice being given by the Met Office, hydrological issues and, I suppose, the flooding infrastructure that exists in each of those towns. As you know, it was a very widespread event. The flooding in Downpatrick differed from that in Newry and that in Portadown. There were different factors at play. The other element of the report is that we need to look towards a civil contingencies framework for Northern Ireland, in the sense that we prepare, we respond and then we recover from any emergency. The report will be guided by that sort of strategy. We will look at the

preparation, what information we had, how the multi-agency partners came together and how we responded. The last element is recovery, and that looks at the financial assistance that was offered, how Downpatrick and Newry recovered and how the businesses recovered from that. It is more in and around the financial assistance and the recovery piece as opposed to what we did from a DFI perspective. It will perhaps be more about local government and the Department of Finance. That gives you a flavour. It will be a very detailed report, and we hope to present it to the Committee in early summer.

Mr Boylan: I have a wee final point, because this is important. Jonathan, you said that you have responded to all the local development plans (LDPs). I take it that you will play a part in all of those. To be fair to Keith, you cannot interfere. You respond as a statutory consultee, and we do not want to take away the autonomy of councils to make the decisions. We brought in Planning Policy Statement (PPS) 15 — the planning and flood risk policy — about 10 years ago. You can answer this question if you wish: in your opinion, is that planning policy statement robust enough when it comes to making these decisions? If you want to comment, that is grand. That is the one that they use at the minute. They may have reviewed parts of it, but, initially, that was it.

Mr McKee: We are feeding into the local development plan process. As planning authorities work through their planning policies, PPS 15 has served us well as a policy that gives us a framework whereby we can respond. It then gives the necessary planning levers for a planning authority to use. It is robust, so we would like to see those replicated as much as possible in local development plans. We are feeding into the process. We think that the existing policy is robust, but I cannot answer the questions on the application of policy. That is not to be evasive —

Mr K Buchanan: No, I know.

Mr McKee: — but I just cannot.

Mr Boylan: Thank you very much.

Mr McReynolds: Thank you, everyone, for coming in. Jonathan, it is good to see you again as well. I will touch loosely on what John said earlier, which is the element of the flood forecasting system that I always talk about. You mentioned silo approaches. Is DFI working with other Departments to try to finance this? I raised this issue at the last Committee meeting. It cannot, as you say, just be left up to you to introduce something like this. There are benefits for other Departments as well. Is a cross-departmental approach being taken to introduce this as quickly as possible?

Mr McKee: Our initial piece of work is to work out more detail on what we need to do. We have requested the finance to do that through our departmental budgetary process. As we develop it, we will see more clearly whether there are other opportunities for engagement with partner Departments or partner organisations on funding.

Gary, you may have more detail on that.

Mr Quinn: Yes. Some elements will be transformational, particularly around the digital piece, so we can look towards budgets elsewhere for that, for instance: not for only the flood forecasting centre but there are other elements. We talk about adaptability for Rivers. We make use of a lot of geographic information systems (GIS) technology and modern hand-held technology for field operatives. We would certainly go looking for money in that invest-to-save area.

Mr McReynolds: Jonathan, you said that it was an important next step. When will we aim for that important next step to be taken? There will be plenty going on after that as well, as you just said, Gary, in how to deliver that. It will take three to five years to deliver something like that. It will not happen this year, I imagine, although I am always optimistic. Will it be next year, the year after, the year after that? When will we see it?

Mr Quinn: I have said that we are very ambitious around this space. We have employed Jacobs as our consultant, which is leading on the flooding review. Jacobs sits on the special scientific advisory group and is very much a specialist in this field. It has reaches within SEPA and in the Environment Agency in England and good contacts in Met Éireann and the Office of Public Works (OPW) in the Republic.

We are doing what we can around this space, and we are very ambitious. Certainly, we have put forward a business case that will bring forward a flood forecasting system as quickly as possible for here. That is what we would like to do, absolutely.

Mr McKee: It is important to flag that other jurisdictions have developed flood forecasting capability ahead of us. However, the community resilience network that uses it has not been as regionally focused as it has been here. Our view was that rather than just producing more and more information, which the public might not know how to use or how to react to when they receive it, we wanted to have a good base of understanding among affected communities about what to do with that information when they get it.

It is one thing to be told that your area is going to flood or that there is a flood alert in your area, but what do you do about it? That is why the community resilience platform was important. We are hopeful that that will allow greater traction fairly quickly with whatever product we are able to produce in whatever time frame.

Mr McReynolds: You will have data to communicate to people. What does that look like in other jurisdictions? If you are giving the public very scientific information, how do you make that digestible so that people are able to understand what they are receiving? Is it highly technical, or is there a way for the Department to ensure that it is digestible for the public?

Mr McKee: It needs to be something that is easily understood. Otherwise, the whole purpose of it falls down. Other jurisdictions have what are called flood alerts and flood warnings. We quite like the approach that the Met Office has used here, which is the coloured shape on a map that shows the area of most concern.

Mr Quinn: I will come in on that. James sits on the Public Weather Service Customer Group (PWSCG). Behavioural science principles are used to get the message out. It is a bit like traffic signs. We see them every day and get used to them, so we may start to ignore them. It is therefore important to get the right message out to the right people in the right way. We are well aware of that. Our eyes and ears are open in that regard.

Mr Dunne: Thank you, gentlemen, for your time. I have a couple of questions. You mentioned the Belfast tidal flood alleviation scheme, which I welcome. Your paper states that it is:

"due for completion in autumn 2024",

which is approaching reasonably soon. I am keen to know whether that is still the plan. Are you confident about meeting the completion date?

Mr McKee: Yes, we have reasonable confidence that it will be achieved.

Mr Dunne: Good. My next question links to that. I am looking at the interactive flood maps on the website, which is very good. It is good that anybody can access it for use. In my constituency of North Down, a number of areas not far from here — Kinnegar is probably the most alarming example — have low-lying properties that are at risk. Those areas extend right to Donaghadee harbour. You may be aware of the recent discussion about that. What plans are there to reduce the risk of flooding? The map shows the present-day risk, but, when we include climate change, the colours get even darker in those particular areas. My question therefore ties into the Belfast scheme. How far up Belfast lough does the scheme stop?

Mr McKee: There are a number of issues in there. The Belfast tidal flood alleviation scheme runs from the Harbour estate right up to Stranmillis. It has quite a large footprint.

Mr Dunne: It does not cover the Kinnegar section of the lough, however.

Mr McKee: No. We have a capital works programme of over 60 projects. In broad terms, its value is about £300 million. There are a number of significant flood risk areas, such as Bangor. That is part of the consideration. It takes a fair bit of time to proceed with studies to determine whether there is a risk that needs to be managed and a viable approach to managing it. We are working through that, as much as the budget allows.

Mr Dunne: I appreciate that. It will not be solved overnight, and there will be a significant cost implications

My final question touches on planning applications. We are all familiar with the processes and the frustration of the public, applicants and agents. The Department is not the only statutory consultee that is not meeting its targets as much as it would like to. What plans do you ultimately have to improve response times? You spoke about staff shortages. Are you looking at recruitment and at putting measures in place to try to improve the situation?

Mr McKee: DFI Rivers used to have an excellent track record of responding to planning consultations on time. From about 2019 onwards, however, the volume of planning consultations increased so much that our performance started to slip. We developed plans to augment and enhance the size of the planning advisory unit. That enhancement took place, but people retire, and there are difficulties with attracting civil engineers and flood risk experts to the industry, particularly into the government sector. We have recently been working through some novel approaches to bringing in expertise from different disciplines to help build up the unit. Doing that will be budget-dependent, of course, but we are exploring, even if we have the budget, how to get people in. We are therefore very aware of the need to augment the unit where we can, because, as I said in my opening remarks, it is a key part of our work.

Mr Dunne: I know that departmental colleagues in other areas have talked about recruitment challenges for the public sector when competing with the private sector. I am sure that you experience that in engineering as well.

Mr McKee: We do indeed.

Mr Baker: Most of my questions have been answered, but I will make a small point about resilient communities. Although I represent an area that, by any stretch of the imagination, is not viewed as being a flood risk area, climate change and the extreme weather that we get from storms that come out of the blue led us to do a very simple thing a number of years ago. A number of homes in different areas had been particularly badly flooded. We installed a simple container, filled with sandbags, that the community could access when such events take place. It is really important that all communities are prepared for flooding, even if they are not areas such as Downpatrick or Newry, which tend to have massive events. Something as simple as that protects individuals' homes from that damage that occurs. Last summer, a house facing me was the only house that was in any danger of flooding, because of the way in which the water was running down the road. An insane amount of water fell in minutes, not even in hours. It was just minutes of torrential rain. Having resilient communities will be so important. On the approach that is taken with stakeholders, you mentioned the review, which will be so important. As a former Belfast councillor, I have to praise the council and you for the quick response when such events take place in our communities.

Mr Durkan: A lot of the questions have been asked, but do not worry. I have scraped around for some, and I am sure that I will have another couple.

The Chairperson (Mrs Erskine): I have faith in you, Mark.

Mr Durkan: Following on from Danny's comments, I am wondering whether is a set policy on the provision of sandbags to communities. In the Eglinton area, for example, there is a container, and a resilience group has been set up there. When the storm warnings come, and they are coming with increased frequency, my phone is hot from areas that have been flooded before that do not enjoy that provision, and those bags of sand then become like bags of gold dust. There is a huge demand for them. Are there criteria for how sandbags are to be deployed?

It may be quicker if I run through my questions. There has been talk of the need for cross-departmental working, and that is fairly obvious. What relationship do you currently have, and have you historically had, with the Executive Office's civil contingencies policy branch (CCPB)? Through the COVID inquiry, we have learnt how under-resourced that policy branch has been. Historically, Departments' budgets were top-sliced, and every Department contributed to that pot, but, as budgets have become constrained, Departments have not been willing or able to put money away for a rainy day, literally in this instance. How does that impact on your flood response?

I raised the matter of the flood protection grant scheme before. If a review of it is being carried out, I would like to see some provision for engagement with social housing landlords. They have not really

been engaged with in my constituency. In fact, Eglinton is a former part of my constituency. It has been taken away. This is about protecting people and protecting property, and, ultimately, the public purse will be protected.

Mr McKee: I can perhaps answer some of the questions, after which Gary can come in. We welcome any opportunity to get sandbags to areas at risk of flooding. They help the community, and it helps us respond to a flooding event if the community can help itself. If there are communities where people think that sandbags will be useful for them, by all means we are very open to considering that.

We have long-standing links with the civil contingencies policy branch. Before I fulfilled my current role, I was responsible for emergency planning, where I worked very closely with CCPB colleagues on developing the lead Department arrangements. When that responsibility originally came to the Department, I thought that it meant that DFI Rivers would have to respond to every flooding incident everywhere. The CCPB's expertise was really helpful in teasing out what the subtleties of being a lead Department were. It does not mean that we respond to all floods everywhere but that we have flood risk expertise that we can share with other responding organisations to make the government response as good as it can be. The CCPB has also been involved with us in developing emergency response exercises, and it has linked with us on the current review, about which Gary might speak.

On the homeowner grant scheme, the review and the social housing aspect, I can say that the Department is absolutely committed to fulfilling its obligations on the management of flood risk. Sometimes, when flooding occurs, the natural response is to say that it must be the fault of government. If we have lessons to learn, we will learn them. The reality is that flooding occurs when rain falls in such volume that, in some cases, it cannot be managed. To manage flood risk as effectively as possible, the organisations that provide social housing, particularly those that are publicly funded to do so, need to recognise the risk to their infrastructure, in the same way in which utility companies recognise the risk to their infrastructure and do what they can. It is therefore important that the Department not only fulfil its role but be clear on where the boundaries of its role sit. That is something that the review should mention so that there is clarity. That would be useful.

Mr Durkan: Perhaps information can be imparted to social housing landlords that their site or development is at risk.

Mr McKee: Yes. Gary, do you want to say a bit more about the role of the CCPB and the civil contingencies group (CCG)?

Mr Quinn: I just want to offer reassurance that there are very good structures in place. I have been in an emergency response role for about 16 years in different guises, first in DFI Roads and now in DFI Rivers. Emergency response has evolved to the point that it is in a very good place. We have good structures. We meet regularly, as Jonathan said. We conduct mock exercises to understand not only how we coordinate at a strategic level but how that works on the ground. There are three emergency planning groups in Northern Ireland, in the east, the north and the west. Those are led by the Executive Office and see the coming together of, for example, local government, central government and blue-light organisations such as the Fire and Rescue Service (FRS).

During the floods of autumn 2023, we came together very well. We switch on very quickly in such scenarios. The virtual world in which we live makes it easier for us to communicate. I would hold up as a shining light the way in which we work. In fact, our exercises have been held up as a shining light by other organisations across the UK. The fact that we are a close-knit community and that this is a small region geographically means that we often meet the same people around the same tables, which, at a strategic and technical level, works quite well. It is often the people who move the mountains, not the processes or the systems. I reassure the Committee that we work very well, particularly in an emergency response situation, right across the Department and that our responsibilities are well known and exercised.

Mr Durkan: Thank you. My final question ties into flood prevention and concerns the difference between designated and non-designated areas for ongoing maintenance. What oversight powers or role do you have over the non-designated stretches? Can you compel landowners to do work or not to do work? It is difficult, in many instances, to identify landowners.

Mr McKee: The Drainage (Northern Ireland) Order 1973 provides us with powers to do the work that we need to do on designated watercourses. The flood risk management plans, which are a statutory requirement, detail that watercourse maintenance is one of the key measures for managing flood risk

here. A vast network of watercourses is not designated. That means that those watercourses have not been designated by the Drainage Council to be maintained at public expense. The 1973 Order contains powers that allow us to take enforcement action if a blockage on a watercourse that was not designated is significantly affecting the flow of water in that watercourse. We therefore have some ability to enforce and encourage riparian landowners to fulfil their obligations to maintain their watercourses.

Mr Durkan: OK. Thank you.

The Chairperson (Mrs Erskine): Before you go, it would be remiss of me not to ask, considering that the Budget is coming up, what bids were submitted for flood forecasting and capital projects as part of the 2024-25 Budget process. Can you briefly tell us?

Mr McKee: Yes, we can. Gary, do you want to cover flood forecasting?

Mr Quinn: The bid for flood forecasting this year is £350,000. That is to get people in place to drive the project forward. We would like to make some technological improvements in the shorter term, but it is primarily to recruit people to get the centre up and running. We have a three-year profile, as we said. The required funding will ramp up to £2 million over two years. Thereafter, we will need in the order of £2 million per annum to finance the flood forecasting centre. Our bid for this year is in and around £350,000. I can provide you with the exact figure.

The Chairperson (Mrs Erskine): What is the figure for capital projects?

Mr McKee: The capital figure is £21.5 million. That is the money that we will need to take forward what we are committed to doing this year. We are awaiting the decision on the budget.

The Chairperson (Mrs Erskine): Sorry, is that for the 60 projects that you outlined? How many projects would it cover?

Mr McKee: It would allow us to work on the list of 60 projects. It would take some of them forward to construction. For some, it would be the development of design. For some, it would be the development of business cases. I do not have the figure to hand for exactly how many projects on the list will have work carried out this year, but quite a few of them will.

The Chairperson (Mrs Erskine): OK. Thank you very much for coming to the Committee. We appreciate your time. No doubt we will see you again.