



Northern Ireland
Assembly

Committee for Infrastructure

OFFICIAL REPORT (Hansard)

Water and Drainage Policy and
the Living with Water Programme:
Department for Infrastructure

19 February 2020

NORTHERN IRELAND ASSEMBLY

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Members present for all or part of the proceedings:

Miss Michelle McIlveen (Chairperson)
Mr David Hilditch (Deputy Chairperson)
Ms Martina Anderson
Mr Roy Beggs
Mr Cathal Boylan
Mr Keith Buchanan
Mrs Dolores Kelly
Ms Liz Kimmins
Mr Andrew Muir

Witnesses:

Mr Damian Curran	Department for Infrastructure
Ms Linda MacHugh	Department for Infrastructure
Mr Simon Richardson	Department for Infrastructure

The Chairperson (Miss McIlveen): I welcome Linda MacHugh, director of water and drainage policy; Simon Richardson, director of the Living with Water programme; and Damian Curran, head of the shareholder unit. Thank you for coming to meet us today. Apologies for the delay. There was a lot of interest in the previous briefing, and quite a lot of the questions were associated with what you will speak to us on today. If you would like to make an opening statement, we will follow it with questions.

Ms Linda MacHugh (Department for Infrastructure): Thank you, Chair, for the opportunity to present an overview of my areas of responsibility as director of water and drainage policy in the Department. I am here with Simon Richardson, who heads up the Living with Water programme, and his work and mine really dovetail, so we are going to do a joint presentation. I am also joined by one of my staff, Damian Curran, who is responsible for managing the relationship with Northern Ireland Water (NIW) in the shareholder unit in the Department.

As director of water and drainage policy, I am responsible for the oversight of Northern Ireland Water and policy and legislation relating to flooding, drainage and the operation of water and sewerage services here. First, you are probably aware that Northern Ireland Water was set up under the Water and Sewerage Services (Northern Ireland) Order 2006 as a regulated utility and a government-owned company. DFI is the sole shareholder of that company, but because it still receives over 50% of its funding from government sources, it is also classified as a non-departmental public body (NDPB), so where accountability and governance are concerned, it is kind of riding three horses, and that is complicated. The NDPB status comes with a lot of financial restrictions that a normal water utility will not face. It has all resulted in a very complex funding and accountability framework and arrangements.

I and my team work very closely with Northern Ireland Water and statutory regulators, which are the Utility Regulator, the Environment Agency, the drinking water inspectorate and the Consumer Council. We all have to function and perform our respective roles in the management and oversight of Northern Ireland Water.

Northern Ireland Water operates under price controls, which are essentially major six-year business plans agreed with the Utility Regulator and, indeed, all the other regulators. The current price control, which we refer to as PC15, ends in March 2021. We have been working very closely with Northern Ireland Water and the regulators for some time on the plan for the next price control, PC21, which will run from April 2021 until March 2027. We in the Department have developed draft social environmental guidance, which sets out priorities for investment for Northern Ireland Water. The regulator will have regard for that document and the price control process, and the draft is now with our Minister for consideration. Whilst investment figures will be finally known only once the Utility Regulator publishes its final determination in December this year, it is clear from Northern Ireland Water's initial assessment that the level of funding required for PC21 will be significantly higher than the level in the current price control. At present, DFI cannot afford to fully fund that, as you heard this morning.

The impact of underfunding has been particularly felt on the waste water side of the business. You will be aware of the increasing number of areas where Northern Ireland Water's systems are at or near capacity. Those areas are widespread throughout Northern Ireland and are of concern. Simon will talk you through the specific issues in Belfast shortly. The recognition of the need to address that underfunding in the commitments made in the New Decade, New Approach agreement are welcome, and my Minister is now discussing with Executive colleagues how those commitments could be honoured.

Where my policy and legislation responsibilities are concerned, we are working on a range of areas. 'Sustainable Water: A Long-Term Water Strategy for Northern Ireland' is the current Executive strategy, and it balances all our water needs and promotes a sustainable and integrated approach to managing water in and through our environment. That document forms the basis of a lot of the policy development work that we are undertaking. We are also responsible for monitoring that strategy's progress.

My team is in the lead in developing and reporting on flood risk management plans on a six-year cycle. That is a statutory requirement under the EU floods directive, which has now been transposed into Northern Ireland law. The first cycle of flood risk management plans, which we are in currently, runs from 2015 to 2021. Again, that is a six-year cycle. We are now working quite intensively on developing the second cycle. There are a number of stages in that cycle's development, which, again, are set out in legislation. We have successfully completed the first two of those on time. They are identifying areas of potential significant flood risk and reviewing and updating flood risk and flood hazard maps for those areas.

Whilst the plans for the next cycle will still cover the three key principles in flood risk management — those are prevention, protection and preparedness — there are some changes in approach in the next cycle, which will focus much more on the impact of climate change and the flooding created by surface water. They will also take account of existing flood defences that had not been factored into the first series of plans. Those plans are due to go to public consultation at the end of this year, and, clearly, as they emerge, we will brief you on them. In the meantime, we have also amended the Northern Ireland regulations to make sure that they are still operable now that we have left Europe.

One particular area of flooding policy is reservoirs. Again, you will be aware that the Reservoirs Act (Northern Ireland) 2015 was, unfortunately, left off the Departments (Transfer of Functions) Order (Northern Ireland) 2016 when the then Rivers Agency moved into DFI in 2016. By default, then, that Act is still with DAERA, and we have been working with DAERA to start the transfer process to get that legislation back where it belongs so that our Minister can move forward on the regulations that are needed to implement the key elements of that Act. Those regulations will come to the Committee for scrutiny in due course.

My team is also responsible for a range of other policy areas relating to water and drainage. I will go quickly through those. We are working with DAERA, local government and other stakeholders to encourage the greater use of sustainable drainage systems, commonly known as SuDs. Those either return rainwater to the environment directly through natural means rather than putting it down the drains, or they hold back rainwater so that it does not overwhelm the sewerage system and cause out-of-sewer flooding, which is really unpleasant. They are becoming ever more important as the impacts

of urbanisation and climate change are felt and there are more instances of very heavy rain over short periods.

In the last mandate, we legislated for hard SuDs, which are usually oversized pipes or tanks with flow-control mechanisms. It is good to see that that has increased the number of planning applications coming forward that have a SuDs element. We are now working to increase the number of soft SuDs, which are more natural features that are designed to hold back water in the environment. They not only deal with the problems of storm water but can bring added environmental health and social benefits, particularly in urban environments, so that is something that we are trying to encourage more of.

We in the DFI family have been working collaboratively to deal with difficult flooding problems, and we continue to explore how the three drainage authorities in the DFI family can work in a more integrated and effective way when dealing with surface water. Simon will talk more about the work he does on that in the Living with Water programme.

We are also scoping out a possible water and drainage Bill that would provide Northern Ireland Water and DFI Rivers with more effective powers to adapt to climate change and adopt more sustainable approaches to water and drainage. We are seeking the Minister's views on what legislation she would like to take forward.

Finally, we support the Coastal Forum's work. That was set up in 2015 to explore how we can address problems of coastal erosion, and it is jointly chaired by DFI and DAERA. Its membership is made up of those two Departments, the seven councils that have a coastline and the National Trust, which also has a significant interest in the coast. Unlike other parts of these islands, no Department here has statutory responsibility for coastal erosion, which is part of the issue. We in DFI have responsibility for coastal flooding, and either the Department or its arm's-length bodies (ALBs) have a significant amount of infrastructure along the coast, so we clearly have an interest in it. DAERA has responsibility for marine planning and the marine environment, and we have been collectively pooling our current vires to see how we can move the debate forward and figure out what needs to be done to properly manage coastal erosion here.

We commissioned a baseline study, which completed just over a year ago. That was aimed at figuring out what position we are in, what parts of the coastline are vulnerable and where we need to focus our energies. The outcome of that report was that we need to do an awful lot more work to get the baseline to a position where we could take informed decisions on that. We are working through the Coastal Forum to see how we can do that, and we are, clearly, also now taking our Minister's mind on how she sees that work going forward.

That is a brief overview of some of the main areas of my responsibility. I will hand over to Simon, who will talk about the Living with Water programme.

Mr Simon Richardson (Department for Infrastructure): Thanks, Linda. My name is Simon Richardson, and I am the director of the Living with Water programme in the Department. The programme was established as a multi-agency initiative, headed by the Department, to deliver a new, integrated, long-term strategic approach to drainage provision. The core objectives of the programme are to provide drainage and waste water treatment infrastructure, needed to protect against flooding; enhance the environment; and enable economic growth.

As we know, the capacity of our sewers and waste water treatment facilities faces constraints in development in Belfast and across Northern Ireland. While there is certainly a need to improve and upgrade that hard infrastructure, we must also change how we manage rainwater on the surface to try to reduce flooding and control the volume of surface water getting into the combined sewer network. The focus for the Living with Water programme is on developing integrated, catchment-based solutions to manage rainwater on the surface through the use of blue-green infrastructure. Blue infrastructure includes features that retain water, such as retention basins, ponds and wetlands. Green infrastructure plays to the natural land or can be plant-based, including woodlands, green open space and parks. Both types of infrastructure are designed to attenuate flow before it enters a watercourse. Using green space to manage surface water and implement a more natural approach to urban drainage enables water to be controlled closer to the source. That reduces the chances of traditional drainage systems becoming overwhelmed. Blue-green solutions are more sustainable and environmentally friendly than hard-engineered drainage solutions, and they offer the opportunity to provide improved community space in urban areas. The new approach is being taken forward through

the development of a strategic drainage infrastructure plan for Belfast and through the development of guidance for integrated drainage investment plans in other parts of Northern Ireland.

The strategic drainage infrastructure plan for Belfast covers the six waste water treatment works and their associated drainage catchments that input to inner Belfast lough. Much of the detailed work to scope the required hard-engineering upgrades is being done by NI Water as part of its PC21 process, which Linda touched on. It is anticipated that the regulator will issue its PC21 draft determination in July this year.

In the interim, the Living with Water programme team will continue to work with key stakeholders to identify and assess potential blue-green opportunities that might deliver significant drainage improvements. The draft plan for Belfast is scheduled to be completed in September this year, and it is proposed to commence formal public consultation in the autumn. The final plan will be brought for approval to the Executive in early 2021. Current estimates are that the Belfast strategic drainage plan alone will cost approximately £1.45 billion to deliver over the next 13 years. That includes sewer and waste water upgrades proposed by NI Water and the blue-green infrastructure opportunities identified in the catchment analysis. That is over and above NI Water's business-as-usual funding needs for PC21 and PC27, drinking water and waste water outside Belfast.

The challenge we face, as you heard this morning, is that, under current funding models, funding our drainage and waste water infrastructure has to be considered alongside other capital priorities across the public sector when budgets are being determined. A number of organisations have key roles to play in managing the flow of water, including Northern Ireland Water, DFI Roads, DFI Rivers, DAERA and local councils. In addition to those organisations, there is an extensive network of private drainage infrastructure that links streams, drains and sewers, which is the responsibility of individual landowners.

Each of the key stakeholders has well-established roles and responsibilities; however, there are many gaps in the drainage infrastructure that cause great difficulty when trying to solve flooding problems in an integrated way. A fundamental part of the Living with Water programme is about bringing together all the key stakeholders to work collaboratively to deliver genuine integrated solutions that are efficient and sustainable. That collaboration has been established through the Living with Water programme; however, much work is still required to deliver effective outcomes on the ground that will improve our drainage capacity.

Chair, that concludes my short update on the Living with Water programme and our joint presentation.

The Chairperson (Miss McIlveen): OK. Thank you very much. There is probably a general lack of understanding of the amount of money that is required to process what is a natural resource, although there are very clear opinions about how water should be funded and whether we should be charged for it — everyone has an opinion on that. Setting that aside, there is a political realisation that investment is required, particularly in the sewerage system and of the challenges not only in Belfast but across Northern Ireland. We all have issues in relation to developments and so on.

You touched on the complexities with Northern Ireland Water, how it is funded and its status as an NDPB. What serious consideration has the Department given to other options of funding for Northern Ireland Water?

Ms MacHugh: We have done some scoping work on that. We could not just sit back knowing that the gap was widening and widening so considerably. I suppose the answer is that there are no easy answers and that it is highly political. To give Northern Ireland Water the ability to look outside government for funding, we would need to release it from an awful lot of our control. That would come with some very difficult political decisions, and so our Minister is discussing that with Executive colleagues. As officials, all we can do is highlight the level of funding required and provide those who need to make decisions with evidence and options, but there are no easy answers to this.

The Chairperson (Miss McIlveen): How advanced are those options?

Ms MacHugh: We have spoken to our Minister about some of the work that we have done. We have looked at how other water companies work — those include Scottish Water and Welsh Water — but they all come with water charging, and at the moment, that is not politically acceptable here. I suppose it will be a political decision about how the Northern Ireland block could get the money to be able to fund Northern Ireland Water with the level of funding that it needs, particularly for its waste water.

Because there has been underfunding, it has had to protect drinking water, and I think everybody accepts that you cannot compromise the quality of drinking water. That is why it has now built up this bow wave of problems on the waste water side whereby more and more areas are at or near capacity.

The Chairperson (Miss McIlveen): Simon, you have been working with the Living with Water programme, and you suggested that figure of £1.45 billion over 13 years over and above what is required for normal working practices. What scoping has been done on the amount of money that would need to be made available on an annual basis? That sounds like a considerable amount of money, but if it is over 13 years, it will obviously be phased.

Mr Richardson: Yes.

The Chairperson (Miss McIlveen): Can you talk to us about the approach that is being taken on that?

Mr Richardson: Yes. The NI Water work and the hard-engineered solutions that will be required will be done through the PC21 process and, subsequently, through the next price control period, which is PC27. There is obviously a profile through that. Alongside the hard-engineering work, we in the Living with Water programme are looking at the blue-green infrastructure that we can provide. It is essential that we work collaboratively with all partners who invest in communities. Where organisations are working in a community, there is a possibility that we can use the green space to develop attenuation ponds to reduce the flow of water through a catchment area. That, then, does not allow the combined sewer network to overflow, meaning that the combined sewer overflows do not discharge as often as they could.

There is a huge parallel working between the hard engineering and the blue-green infrastructure. Over that period, we have profiled that work. There will be a ramp-up in the first two to three years of PC21 to get to a level on the blue-green side and the NI Water side to allow us to work through that. The £1.45 billion includes the waste water hard-engineering solutions that NI Water will be required to do in Belfast and the associated blue-green opportunities that we may develop over that time to try to assist the water flow through the catchments.

The Chairperson (Miss McIlveen): Has the Department perhaps taken its eye off the ball a little over the years by not insisting on and not working with colleagues in planning to insist on greater developer contributions, particularly in some of our towns and villages? I am very mindful of my own area, where our capacity is starting to creak.

Ms MacHugh: Developer contributions are driven through the planning process. We also have the complication of the regulatory process. The regulator works on the basis that water and sewerage are paid for by customers. Because of government policy, the domestic part of that is paid by government, so it is blind to where the money comes from. We are looking at whether Northern Ireland Water could accept direct contributions from developers. There is an argument, which I think the regulator would make, that you are asking a developer to pay for a specific part of a development that is part of a wider network. That said, Northern Ireland Water and the Department are working increasingly with developers to look at more sustainable ways of taking storm water out of the system. That is very encouraging.

In some areas, Northern Ireland Water might be able to connect the foul supply, but it could not connect the additional storm water because that is what would overwhelm the system. We can find better ways of designing developments by putting in, say, a soft SuDS pond or sustainable drainage at individual property level, and then you will have less storm water coming through. It will not solve every single problem, but it will certainly help. As I said, I am encouraged that developers are starting to knock on our door and say, "Can we work with you on this?". That is a direction of travel that we would really like to go in.

Mr Boylan: Thank you very much for your presentation, Linda. You are welcome back in your new capacity. There are a couple of interesting points. It is all right talking about developer contributions, which is a planning issue, and we will get to that in the next briefing, but ultimately people will pay for that. We could say that the developer contributes, but that price would be put on elsewhere. That is another debate for another day. I like the idea of the SuDS, which you mentioned. What statute provides for them? You said they are legislated for. Are we clearly saying that, now that councils have planning powers, it is the remit of the development itself to apply SuDs?

Ms MacHugh: There are several points to that. What we legislated for was that Northern Ireland Water could adopt the power to provide SuDS so that they become part of a drainage system. Previously, it could adopt only pipes and things. It also has the right to refuse an article 161, which is the sewer bond thing, if a developer has not given due regard to putting SuDS in. It is driving more developers to look at SuDS as a solution.

Over and above that, in the planning system — my colleagues from planning will be a lot more au fait with this — there are clear statements made in the strategic planning policy statement about sustainable drainage being a preferred option. We have done an awful lot of work over the last year or two with councils, as they look towards their local development plans and at their own local planning policies, to ensure that water and drainage is adequately reflected in those plans and that, when they are developing their local planning policies, the strength of some of our policies in the strategic planning policy statement and the PPSs below that is not lost, both for SuDS and for flood prevention and flood mitigation.

Mr Boylan: Are we now integrating the hard and soft SuDS options as part of the whole planning policy? Do I need to ask that question to the Planning Service?

Ms MacHugh: It is intrinsic in planning policy and, as I said, we have been working with councils to ensure that that is not lost as they move forward with their local policies.

Mr Boylan: I know that some developments develop these [*Inaudible*] to deal with maybe a certain number of houses, and we do not want a load of them all over the place either. We need a proper system, but it is an argument for another day.

I have two quick points. In the first-day brief that we got, you said that you had discussions with the Finance Minister about the new model and about how you could bring funding to deliver the programme — PC21 or whatever it is. You are to bring options back to the Minister. Can you expand a wee bit on what those options are?

Ms MacHugh: Not really at the moment. All I can say is that, when we looked at them, there were no quick and easy answers.

Mr Boylan: Is there any flexibility within the governance model — the Go-co — to borrow funding? Can you say that?

Mr Damian Curran (Department for Infrastructure): As a non-departmental public body (NDPB), Northern Ireland Water exclusively has to borrow from the Department. Flexibilities around borrowing really need to be in a properly costed business case. There are statements in 'Managing Public Money Northern Ireland' about borrowing outside from the market, for example. There needs to be a business case that proves a value-for-money case, but borrowing from government, when compared with the market, is generally a lot more competitive, always beneficial and less risky.

Ms MacHugh: It is not actually access to borrowing that is the problem for Northern Ireland Water; it is budget cover to spend the money. We have a borrowing agreement whereby Northern Ireland Water can borrow up to a certain limit for capital. It is nowhere near that limit, but it cannot get to the limit because we have to restrict the amount of budget cover we can give it to spend the capital. It is bizarre —.

Mr Boylan: So it is in the contract; it is in the overall model itself, be it contractual or governance.

Ms MacHugh: It is a very complicated situation, but access to money is not Northern Ireland Water's problem. Its problem is that we cannot provide it with enough budget cover to spend the money that it needs to spend.

Ms Kimmins: Thank you for your presentation. I have a couple of small points. Given the assessment of the current flood risk management plans — funding is a huge issue here and right across the board — how prepared are we? I was on Newry, Mourne and Down District Council until very recently, and my colleagues there had a presentation from NI Water in the last number of weeks from NI Water. One of the key issues that it pointed out was that the capacity of the infrastructure in that area is at breaking point. Linda, you mentioned the local development plans and working with councils. It has been brought to my attention that it could actually hinder further development in that area. As you

know, Newry itself is a huge flood risk, as we have seen over the last number of years. Simon will be well aware of that too. Where are we with that and how prepared are we to manage that going forward? Obviously, we want to ensure that we can continue with future development in all areas, but we also have a duty to make sure that we protect people's homes and the existing communities.

Ms MacHugh: Yes. One of the big challenges with flood risk management planning is that you cannot plan for every single event. All we can do is use our knowledge and technology to identify those areas that are at most risk and then prioritise those areas for investment. That does not mean that we can protect everybody and everything from flood. You only have to look at what is happening in England and Wales at the moment to see that. The weekend before last, my colleagues in DFI Rivers had a very hairy weekend; I do not think they got much sleep.

We do have issues here, but when you look at the scale and the size, part of it is luck — that that rain did not fall on us. Also, part of it is that we have a far lower percentage of properties at flood risk here because we have had fairly stringent planning policies around flood risk. That has stood us in good stead. The flip side of that is, of course, that, in some areas where people want to develop, they are told, "Well, actually, that is a flood plain, and if you build there, you are likely to get flooded". Then there is an issue if you allow development there. Is that right? Will Government then have to step in and try to protect it? If you protect one area, you could compound the flood risk further down the stream. It is a really complex area of work, and it is quite technical at times.

As I said, the current plans started to look at where we needed to prioritise and do work. The next set will focus a lot more on surface water, and it will bring in all the issues that Northern Ireland Water has highlighted. On one hand, we are saying to them, "You will have to play a much bigger role in flood risk management than you did in the last plans", and in the next breath saying, "But, by the way, we cannot fully fund you". That is a difficult position for the Department to be in.

Ms Kimmins: It is something that has come up through planning in my council. Newry is an example. The topography is against us. We are in a valley. We are looking to develop in the centre of Newry, and we are on the cusp of something very good for that area in terms of the potential for tourism and all those different things. Hopefully, there are lots of different things coming down the line, so it is quite worrying. My colleague mentioned in the previous presentation that the infrastructure plans for wastewater seem to be very Belfast-centric. It is something that I have mentioned to the Minister. I know that there are other areas, and I cannot quote them here directly, but I know that it is a huge problem right across the North.

Ms MacHugh: I can reassure you that Northern Ireland Water is looking at a lot of areas outside Belfast in its business plan. It is absolutely not just in Belfast. In its recent plan which it put in to the regulator, there are economic hubs that they are also going to concentrate on outside Belfast, as well as some smaller areas too. It is not just Belfast-centric, and, in fact, Newry is one of them —

Ms Kimmins: That is good. I am glad to hear that.

Ms MacHugh: — as is Derry.

Mr Boylan: That is recorded there, Chair. Stamp that.

Ms MacHugh: I must caution that that is based on it getting funding.

Mr Hilditch: You are very welcome, Linda. It is good to see you again. Moving on to another topic from your presentation, which is the coastal forum and your input into that. It is pretty worrying that nobody has any clear responsibilities in that area, but I come from a coastal constituency, and this winter has been very problematic. I have been dealing with a number of issues in East Antrim, to be honest. There seems to be a year-on-year increase in issues of weather and climate and whatnot. Some people who have built apartments have put flood prevention schemes in place, but older apartments do not have those. What role do you play in that? What does the forum really do?

Ms MacHugh: The coastal forum has been looking at a number of issues, trying to figure out the areas that are most vulnerable and then looking at what we can do to try to mitigate the risk. The problem with not having one Department with vires to do something about it is that —. I am not a marine scientist, and this is all very technical, but if, for example, you decided, "This is an area of coast that is prone to erosion. We are going to shore it up and protect it", what you could end up doing

is causing accelerated erosion further up or down the coast, depending on the direction of wave action. It is something that you cannot just rush into and shore up.

What we have been doing, as I said, is this baseline. DAERA managed to get some EU funding, so it is doing a piece of work to take that debate a bit further on and to start looking at it in more detail about what might be done in some areas to at least get the information. We have also developed some guidance for planners in local councils. They are in a difficult position because, in looking at planning applications along the shorelines, without hard and fast evidence and data as to whether an area is prone to coastal erosion or not, it is difficult to know whether it is a valid planning application. We have some guidance about areas and how they should approach it in the absence of hard data, but it is quite difficult. The forum was set up at ministerial level. We have not had Ministers for a number of years, but clearly we are now talking to our Minister about how she wants to take that work forward.

Mr Hilditch: It is important to go forward because, as I say, year on year it seems to be worse.

Ms MacHugh: The National Trust is also very proactive. In fact, the last meeting was held at Mount Stewart, and they took us out and showed us some of the work they had done on their coastline. The National Trust either owns or manages about 30% of the coastline of Northern Ireland, so it is a big player.

The Chairperson (Miss McIlveen): How often has the forum met in the absence of the Assembly?

Ms MacHugh: We have had a stocktake, and then two more formal meetings which the permanent secretaries chaired. We have tried, as much as we could in the absence of proper powers, to move the debate forward.

The Chairperson (Miss McIlveen): There are obviously two different views as to how it should be managed: either by hard engineering or by basically letting it go and returning it to nature. Has there been that conflict in the forum, or is it still just a matter of trying to get the data? Obviously, we are in the same situation as we were a number of years ago and there does not seem to be a huge amount of progress.

Ms MacHugh: We were hoping that the baseline study would be a bit more definitive. Really what it showed was that whilst there were pockets of information here, there and everywhere, there was not enough information at the same level, measuring the same things, to take any coherent approach, so now we are at the stage of scoping how we approach it. Technology is moving on. We are looking at using lidar, and there is a satellite option that we have heard about recently. We need to explore the best way of getting the information we need to make an informed decision about how best to move forward. I know that sounds like we are pushing it down the line, but we are doing what we can with the limited resources we have got.

The Chairperson (Miss McIlveen): Scotland are much further advanced in all of this.

Ms MacHugh: They are. Scotland, England, Wales and, indeed, Ireland have very specific requirements in law.

The Chairperson (Miss McIlveen): Are there any lessons that can be learned from there?

Ms MacHugh: We do liaise quite frequently with all our colleagues in the British Isles, and we are involved in some joint research programmes, particularly around sea level rises, wave action and that sort of thing. There is a British Isles-wide survey study being done, and we are involved in that as well. There is informative work being taking forward to try and figure out where we are. In terms of the coast and sea level, it is interesting: as an island, Ireland is tipping.

Mr Beggs: Is it going east or west?

Mr Boylan: North to south.

Ms MacHugh: From a geological perspective, we are actually rising. Cork is going down, and it is on that kind of axis. Unfortunately, we are not rising as fast as predicted sea level rises, so we still have

to take that into account. When we look at the flood risk management plans, we are looking at projected climate change, and we recently changed the epoch from 2035 to 2080. In climate change terms, 2035 is around the corner. We are factoring all of that into the new set of plans.

Mr Hilditch: In some areas it will affect public transport, such as railway lines.

Ms MacHugh: Yes, and we are regularly in contact with Translink and also DFI Roads. In particular, you will know that the Ards peninsula area is continually having to shore up sea defences to protect transport links. It is an issue.

Mr Muir: One of the discussions about Northern Ireland Water has been about mutualisation. What consideration has been given to that, and what are the pros and cons?

Mr Curran: Mutualisation is one of the business models, if you like, that is out there. We often look to Wales and Welsh Water as an example of that. It is not strictly a mutual, but that type of language is used in that sense. Welsh Water obviously has the benefits — well, has the policy, rather — of water charging. Customers get charged. No Government subsidy is provided to Welsh Water for that. It has access to debt borrowing from bond markets. It has a predictable, guaranteed revenue stream, which allows it to make a lot more different flexibilities and choices, maybe, than what the water and sewerage sector provider in Northern Ireland has. It is an option, but clearly there is a consequence for domestic charging policy if we pursue that business model. An Assembly paper was produced in October 2014 — we dug it out of the archives — which looked at different water and sewerage sector providers across the UK and the Republic of Ireland, and Welsh Water was one of them. The paper concluded that to use a mutual-style business model would require a change in domestic water charging policy. It is an interesting case study.

Mr Muir: What are the negatives associated with mutualisation?

Mr Curran: Clearly, with mutualisation comes a complete change in government control. A mutual company would be owned by its members. The governance of it is completely different. The Go-co/NDPB model that we have in Northern Ireland would clearly have to be scrutinised, and choices made on it.

Ms MacHugh: There would have to be a change to legislation, which is not a disadvantage. If it were the political will, that is what would be done, but it is not in line with current Government policy.

Mr Muir: The issue for me is that I just do not see that there will be the level of investment that is required in the water and sewerage infrastructure in the short to medium term. We can skirt around that, but we will be back here year after year on it. My position is that we have got to show some leadership on it, because the implications of not making the investment are very clear, whether that relates to planning applications not being approved or the risk of pollution and fines that are associated with that. Has any scoping been done on the potential pollution and fines if we do not invest?

Ms MacHugh: We know that the Northern Ireland Environment Agency is actually looking at making the way in which it measures waste water treatment more robust and also, potentially, responding to new environmental threats, such as microplastics and all that. If anything, its scrutiny is going to become a lot more rigorous, which, in and of itself, will lead to a need for more investment. If you add on the impact of more economic development, you just get more pressure on the waste water system. You are quite right: it is a big concern. The new regime is not likely to kick in fully for another six years, but it is coming down the tracks at us. Over the next six years, the PC21 period, Northern Ireland Water will have to prepare itself for that. We are working collectively because we know that it is the right thing to do. I am by no means saying that the Environment Agency is doing the wrong thing, but it will take more money, which, currently, we do not have, so it is an issue that will only be compounded.

Mr Muir: I have just one quick question on reservoirs. A transfer of functions order is due to be made. Is there any idea of the timescale?

Ms MacHugh: I think that, because it is sitting in DAERA, it is up to the Agriculture Minister to instigate that process. We are working with DAERA to ensure that that happens. We are quite keen to get cracking on it.

Mr Muir: Some members have outlined concerns. It is really good to get the legislation moved.

Mrs D Kelly: Hi Simon, good to see you. I noticed recently that there were fines for a fairly well-known agri-food business over discharge into the waterways. What are your views on the fines that are imposed by the courts and whether they really reflect the cost of any clean-up? Do they discourage? Are they incentivised enough?

Ms MacHugh: I cannot comment on fines. However, I can say that Northern Ireland Water has been charging the company involved to truck its waste out of the site to a waste water treatment works to get treated, to get round the fact that it was causing environmental damage and pollution in the area and a bad odour for the people living in and around it. That will continue until a long-term solution is found for that site.

Mrs D Kelly: In terms of pollutants generally around industry and others, is your overall policy to deal with that serious enough in relation to having a greener, more eco-friendly environment around some of our regulations and legislation?

Ms MacHugh: The regulations relating to waste water treatment actually sit in DAERA. The Environment Agency deals with all of that; that is its regulatory role. Northern Ireland Water is looking at more natural ways of treating waste water in some smaller developments and villages, but it will not be the solution in every site. They are looking at the use of natural pools in Stoneyford and at a site down in Fermanagh. The waste water comes in at the top, goes through a series of pools and — this might sound odd — enzymes and plantings treat the water as it goes through over a number of days, and the water that comes out at the end is clean. That is a very non-invasive way of dealing with foul water. Northern Ireland Water will also look at various industries and give various grades of discharge consent which that company needs to abide by, otherwise it is in breach. It is a complex thing, with all sorts of things going on, but the ultimate monitor of that is the NIEA.

Mrs D Kelly: Yes. At one time NIW was accused of being one of the worst polluters. Has the company cleaned up its act?

Ms MacHugh: It has, yes. It had no pollution incidents last year, from an NIEA perspective. It had no breaches. In fact, for a company that has been underfunded on both the clean water and waste water side of its business, it achieved the highest standards ever. I was at a meeting recently in NIEA where I was shown a graph of the breaches of any kind of regulations from Northern Ireland Water's perspective, and they have gone down quite dramatically.

Mr K Buchanan: I will be brief, because I appreciate that other members want to ask questions. How big a problem is the combined foul and storm water across your old network, as I call it? Are your flow meters into your waste water treatment plants giving a different reading today than they do on a dry day? I am looking at you, Simon.

Mr Richardson: On the Living with Water programme, which I am heading up, one of the key discussions that I have had with NI Water since I have taken up the post relates to the fact that the hard engineering work that it is doing will not be sufficient to deal with the overall problem, because as the storm water gets into the combined sewers and overflows into the rivers and network and gets into the sea, all of the water is not getting to the treatment works, so some of it is not being treated. The blue/green aspect of this is not just nice to do; it is essential. It will contribute significantly to the overall water quality in Belfast Lough in and around the Belfast plan. We intend to roll out the lessons that we learn from the Belfast plan through guidance across the rest of Northern Ireland so that the opportunities that we identify in Belfast can be replicated across other council areas. The Living with Water programme is really about identifying opportunities. DAERA, for instance, which we have had conversations with, may want to do tree planting to help address climate change. Tree planting is good for climate change; it is also good for treating water flows naturally. It will help us if we do it on an upper catchment management basis. The solution is not always where the problem is; the solution can be some distance away. That is why the Living with Water programme is slightly different from the SuDS perspective that Linda was talking about in that new developments will deal with what they are dealing with while the Living with Water programme is trying to retrofit the whole catchment. That is where the Living with Water programme is.

I cannot give you information on the number of discharges, as I do not have it.

Mr K Buchanan: On a dry day, you will have certain number of cubic metres per hour or for the 24-hour period before going into a treatment plant. However, that will increase because I have seen flooding around towns in mid-Ulster where, on a wet day, sewage goes up. That tells me that storm is getting at sewage. How big a problem is that to then overload your waste-water treatment plants? On a dry day, you may be OK, but, on a wet day, you are maxed out. There has to be a correlation between a rainy day and a dry one.

Ms MacHugh: It is interesting. Sometimes, the problem is not so much at the treatment plants but in the network itself.

Mr K Buchanan: That is my point.

Ms MacHugh: That is where the flooding really occurs. Some plants just have a volume; some have a problem because of the volume of biological load. That is the polite way of putting it. *[Laughter.]* That does not change on a rainy day, but it is more likely to overwhelm the whole system, and then you get out-of-sewer flooding that goes into people's houses, and that must be the worst thing ever.

Mr K Buchanan: It would be interesting to get those figures. I am sure that you can.

Ms MacHugh: Northern Ireland Water will be able to provide them. We can get them for you, although I know that you are going to the Belfast waste-water treatment works on 11 March. That might be a really good opportunity, because you will see it. If it is a rainy day, you will really see it.

Mr K Buchanan: I think that is the problem. I think the storm is connected to the foul.

Ms MacHugh: That is absolutely the case, and that is why, for new developments, we try to encourage, as is now the norm, that you separate the storm and the foul. Sometimes, though, the problem is with new developments built at, say, the outskirts of a town. They start off separated, but, because the town is based on a Victorian sewerage system, the two end up coming back in and getting reunited. What we are trying to do, and what Northern Ireland Water is very keen to do, is to keep them separated and keep the sewers for what should go down the sewers and, as I said, find a more natural, environmentally friendly and sustainable way of getting rainwater back out to the sea, which is where it should end up. However, that takes huge investment and cost; retrofitting the whole of the system now would cost billions.

Mr K Buchanan: Effectively, you either upgrade waste-water treatment plants or you split your network. Which is the cheaper?

Ms MacHugh: As I said, it is more to do with the pipes.

Mr K Buchanan: That is what I mean, if you were physically fit to do that.

Mr Richardson: Going back to the Living with Water programme, there is a realisation that we cannot retrofit all of the combined sewer system, so we have to operate it as best we can.

Mr K Buchanan: Fair enough.

Mr Richardson: Where new connections come on board and we can take those straight to the watercourse, that is great, but with the Living with Water programme we are trying to slow the storm water getting into the combined sewer to reduce the number of combined sewer overflows. You are exactly right, but the Living with Water programme looks at the whole catchment to slow the water down. We know that it will get to the combined sewer, but we will slow it down like a traffic light system. If you all come to the same point at the same time, there will be congestion. With the combined sewer, if we can slow the surface water getting into the sewers, that will give us more capacity.

Mr K Buchanan: You talked about the reed-bed system for discharge. Are you actively progressing that system and are you actively encouraging its use in villages and small towns?

Ms MacHugh: It will only work for small populations, but Northern Ireland Water is looking to expand and extend what it is doing. I think that it is now considering Limavady as a potential next site. It is still piloting it all, but it is certainly a more environmentally friendly way of looking at things.

Mr K Buchanan: According to this, an average person in Northern Ireland uses 150 litres a day. I do not know what an average person is, but anyway. How do we compare with the rest of the United Kingdom or Europe, based on those figures? Are we using too much water?

Ms MacHugh: Our use is maybe slightly higher, but it is not a million miles away. Again, that is something that we would like to encourage. Customer behaviour is not going to solve the problem, but it will help. That includes looking at water efficiency in the home, not putting stuff down the toilet that you should not, which causes blockages and creates out-of-sewer flooding that floods people's homes, and encouraging businesses not to put oils, fats and greases into the system. I am sure that you will have seen some of the programmes on fat bergs. Some of the stuff that Northern Ireland Water finds down its drains is just disgusting. Some of it is bizarre. It has hoicked bikes, Barbie dolls, cats — live ones — placards and all kinds of things out of its sewers. It is amazing what ends up down there.

Mr K Buchanan: What would that 150-litre figure need to be for there to be no problem with our treatment plants?

Ms MacHugh: It is not so much what we use; it is what we discharge. I do not have the figures for how much waste water that produces.

Mr K Buchanan: If we are using 150 litres a day, it is all going to foul. We drink only a small percentage — four litres — of the 150 litres that we use.

Ms MacHugh: Yes. Something like 750 million litres go in and something like 385 litres come out, so we do absorb a lot. Maybe it comes out in sweat — I do not know — but there is less. I do not think that asking people to produce less foul waste is the solution, particularly when we want to grow our economy and attract more tourists and all that that brings. We really need (a) to build better treatment systems; and (b) look at more environmentally friendly ways of dealing with the clean stuff, the rain water. That is the big challenge that Simon and I and Northern Ireland Water and its stakeholders face.

Ms Anderson: It is good to see you again, Linda. Bear with me. This is my first meeting of the Committee and, with your indulgence, I just want to avoid doubt and give certainty by saying that, while people are aware of each political party's position, Sinn Féin will not support water charges now or ever. However, I would like to hear more. Time may not permit it today, but perhaps you could get back to us. I found it interesting what you said about the budget cover for capital spend and how that is a problem. We really should not be thinking about how we charge the public for this when there was an opportunity to address it by giving that cover. As a member of a scrutiny Committee, I would like to know more about that, as, I am sure, others would. We want clean drinking water. I was talking with your colleagues earlier about Mobuoy dump. We are very concerned about the drinking water in Derry, given the potential contamination and all that is happening. We know the importance of having clean drinking water and everything that goes with it.

I am interested to learn about the 179 controlled reservoirs. Perhaps it is my limited knowledge, but it seems that a bit of a dog's dinner has been made of the Departments (Transfer of Functions) Order 2016. I would like to know more. Who was responsible for transferring the functions and statutory responsibilities from DARD to DAERA, as opposed to from DARD to your Department? However, the staff moved to your Department. I will ask questions because that is where the staff are. I agree with my colleague that it would be interesting to know when the transfer order will be initiated. Do we have any information? Maybe we can ask the Minister about it.

I would like to ask about policy guidelines and planning policy statement (PPS) 15. I am sure that other members have reservoir issues that they want to bring to your attention. Mine is FLD 5, as it totally ignores and omits what I understand to be the globally accepted practice of formulating a three-tiered risk assessment. It permits only a worst-case scenario. I say that in the context of what happened in my own constituency in Derry, where there was an opportunity to build 79 houses. Some of those houses were allocated to the vulnerable in society, and they had been told that they would get those houses.

Along with that, a community facility was to be built in the greater Glen area, but that was prevented by this policy, which has come into being only in recent years, because the reservoir has been designated a worst-case scenario. Account was not taken of the work done in the 1990s to strengthen the reservoir. Moreover, a safety rung had been put in place as well as a hydro-electric system that, at the press of a button, could ease any pressure. On the other reservoir, a previous Minister had given commitments to a not-for-profit organisation — Creggan Country Park — that it would get grant aid for the remedial work that was required. That was written and communicated to that organisation. So, to have the remedial work carried out, they need support.

The staff are located in this Department, although the statutory functions are in another Department. At the beginning of this process, it was very complicated for people when they were developing the new Departments and making sure that the transfer of functions order came into being in a way that made sure that this did not happen.

With the Executive back up, hopefully we get a time frame from the Minister. We have concerns, because potential development is being stopped as a consequence of a policy. When this comes over, does that mean that the policy and guidance also comes into the Department to allow us to carry out our role of monitoring and interrogating?

You mentioned the water framework directive, the flood directive, and the drinking water directive. What assessment has been done on the risk of Brexit to ensure that we in the North are protected from any regressive measures? The level playing field has been taken out of the withdrawal agreement, which opens up opportunities for people to lessen the kind of protections that we have as opposed to building upon them.

Ms MacHugh: There are probably four issues there. First, when I talked about giving budget cover, that is the equivalent of the Department having the money to give budget cover. I am not saying that we just decided not to give them the cover and that if we had Northern Ireland Water could have accessed the money. We cannot give them budget cover because we do not have the money in our budget. As with all the problems that you discussed with John McGrath, the lack of budget in the Department is the problem. It is not Northern Ireland Water's fault, and it is not the Department's fault because we have given them as much money as we can afford to. The Minister is facing very difficult decisions, given all the pressures on her budget. So, it is departmental budget cover that is the problem. Does that answer that question?

Ms Anderson: Yes.

Ms MacHugh: As for Mobuoy, I can only speak on the water side of things. You said that there are legal cases ongoing in respect of that, but I assure you that Northern Ireland Water has worked very closely with the Environment Agency and the Drinking Water Inspectorate. It has put in a very rigorous regime of testing at the abstraction point at Cloghole on the Faughan, which is a far more rigorous regime than would normally be the case. So far, there have been no issues. Even during the big flooding in the north-west when it was thought that that might dislodge or affect the site, there was no impact. So far so good.

That said, they are not resting on their laurels. They reprioritised a piece of resilience work that they wanted to do on their drinking water supply. Northern Ireland Water was going to run a two-way pipe between Derry and Strabane, but now it is going the other way between there and Ballinrees, which is further around the coast. So, should there be any issues with the water being abstracted from the Faughan, they would have the resilience to draw drinking water from another source until the problem could be solved. It also has clear water tanks at the site at Carmoney that contain a few days' supply. That also gives a buffer should anything go wrong, but, as I said, at the moment, there is no sign that the Faughan is being impacted

Ms Anderson: Chair, with your indulgence, the extent of the potential contamination is great, with the waste that has been dumped and left there for far too long. You have the enforcement order, but you can understand that concern is growing. You cannot have that volume of waste being left so near a river. I have heard assessments from other people about whether the water and the river have been contaminated or are near to being contaminated that are different from what has been suggested here today.

Ms MacHugh: DAERA is taking the lead on the overall plan for dealing with the site. It is well aware that one of the first priorities will be protecting the site from any potential leaching into the river. It is working very closely with us and Northern Ireland Water on that.

The Chairperson (Miss McIlveen): On that, we can write to the Committee for Agriculture, Environment and Rural Affairs about Mobuoy and get an update from the Department.

Ms Anderson: OK. I appreciate that.

Ms MacHugh: You also talked about reservoirs and the draft order. When the draft order left DARD, the Reservoirs Act was certainly on it, but when it passed through the Assembly it was not. I do not know how or where it fell off.

Ms Anderson: Can we explore that? It would be interesting to know how you can end up with a statutory —.

The Chairperson (Miss McIlveen): We have had discussions and the Minister briefed us on that.

Ms MacHugh: The main thing to focus on now is getting it back to where it belongs.

Ms Anderson: You would want to make sure that something like that does not happen again and find out how that happened.

Ms MacHugh: So little of it has been commenced. We commenced what you defined as a controlled reservoir and some of the very high-level things, but none of the actual teeth of the legislation have been commenced. Even if DAERA had wanted to, it could not have done anything because it would take draft affirmative legislation to get the proper management regime for reservoirs in place. As I said, my Minister is keen to get that moved across so that we can start it.

I absolutely understand that planners have been put into a difficult position in the interim. You are quite right: FLD 5 was drafted on the basis that the legislation would be in place and fully enacted and that access to the required information would be a lot easier than it is now. We have been working with colleagues in planning — my colleagues here may go to see them today, depending on time — and with the group of planners from local government. We have also worked with DFI Rivers branch, which gives planning advice on flooding. You will be able to ask my colleague Jonathan McKee, who will be with you next week, about that in a lot more detail. We have worked collectively to develop guidance to make it a bit clearer what approach planners should take in the absence of legislation so that we do not stop development that could or should be happening, but, equally, that we do not do something that could endanger lives.

Ms Anderson: Absolutely. It is the worst-case scenario at all times. You can see that there has been some resolution with other reservoirs where the three risk assessments were not applied. We would like the same thing to be taken forward with regards to the reservoir in the Glen in Derry.

Ms MacHugh: If there is a particular case, I am sure that Jonathan will be able to talk to you about it next week.

The Chairperson (Miss McIlveen): OK, thank you. Mr Beggs —.

Ms MacHugh: Oh, sorry. One last thing: your fourth question was about making sure that we do not regress on all those issues post-exit. I am responsible for the floods directive, and, as I said, the full requirements of that were transposed into our laws some time ago. We have made the amendments to ensure that those will continue, and there are no plans to reduce that. When water flows it is blind to borders. Two of our three river bases cross the border, so it is important that we continue to cooperate with the Office of Public Works, which is our equivalent down South.

Ms Anderson: Is there a non-regression clause in that for further development of, for instance, any other directive that will be applicable across the island? For instance, one directive could apply in the North, and the South could apply a new directive that may emerge post-2020, and then you have *[Inaudible.]*

Ms MacHugh: No, there is not because, again, in the absence of Ministers and politicians to make new policy, all we could do was ensure that the current policy continues. The amendments that we made — we had to make them through the Department for Environment, Food and Rural Affairs (DEFRA) to get them through on time — were to ensure that they continue to operate as they are at the moment, so there are no additions or changes.

Ms Anderson: There is no future proofing in it.

Mr Beggs: I will try to be brief. At the very beginning, you indicated that Northern Ireland Water was a Government-owned/contractor operated (GOCO) set-up. Am I right in saying that the worst of all designs to run any organisation is to create a long-term GOCO?

Ms MacHugh: Well, it was set up under the legislation as a GOCO, but, at that point in time, the plan was to introduce full water charging. The nearest equivalent was Scottish Water, which is a GOCO with full water charging, but full water charging has never come in. A couple of years after it was created, the Office for National Statistics said that it was also a non-departmental public body (NDPB). So, you are quite right. It is a very difficult set of things to have to manage.

Mr Beggs: Does that make decision making very slow, prolonged, bureaucratic and costly?

Ms MacHugh: It certainly adds layers. We try to work as swiftly as we can within the rules, but there are layers of approvals that Northern Ireland Water has that other utilities do not have and layers of financial approvals that they are hooked into through the public procurement regulations, public pay policy and all of that.

Mr Beggs: Has there been any attempt to find out how much savings could be established through a more efficient arrangement, whether that is entirely on the side of the Department or is separate?

Ms MacHugh: No, because it is not government policy to do it differently. As civil servants, we do not have a mandate to see how much we could save if we did it differently.

Mr Beggs: Earlier, the deputy secretary talked about transport and roads. I picked up a comment from him that they have to fund flagship projects and then see what is left.

Is that what is happening with Northern Ireland Water? Flagship projects are developing, sucking what limited capital we have, and everybody else is left suffering. There is underinvestment in infrastructure, and, as a result, huge areas of the country cannot be developed and new plans cannot proceed. Is that what is happening?

Ms MacHugh: I cannot speak on behalf of the whole Department for all its finances, but I know that, in finance terms, flagship projects are seen as Executive commitments and, therefore, are inescapable.

Mr Beggs: OK. Are politicians creating an impossible situation for civil servants and public bodies to deliver? They do not want a, b and c, and they are not prepared to fund what they do want. Are civil servants in an impossible situation?

Ms MacHugh: I could not possibly comment [*Laughter.*] All I can do is follow government policy as a civil servant —

Mr Beggs: Which is a mess.

Ms MacHugh: — and support my Minister in doing what she wants to do.

Mr Hilditch: We previously heard a presentation on the loss of experienced and skilled workers. My understanding is that Northern Ireland Water now depends a lot on subcontractors for the day-to-day delivery of the service. Is it a concern that experienced operatives have left the system and taken early packages?

Ms MacHugh: Northern Ireland Water has reduced its staffing levels. I think that it is now sitting at around 1,300, but, in doing that, it has driven through a lot of efficiencies and reduced its operating costs in real terms by about £68 million-odd. I am not saying that that is all down to losing staff. What I

am saying, though, is that it operates in a way now where, with underfunding, it achieves better than ever levels of service to its customers, water quality and waste-water quality. We have talked about its problems in not being able to add new customers to its list because, if it did, all those standards would start to slip and that is the problem. It has a capacity issue. I think that it operates in a very efficient way. Maybe that is something that you wish to explore directly with the company.

The Chairperson (Miss McIlveen): Thank you very much, Linda, Simon and Damian.