



Northern Ireland  
Assembly

Committee for Regional Development

# OFFICIAL REPORT (Hansard)

Water and Sewerage Services Bill:  
Natural Resources Wales

4 November 2015

# NORTHERN IRELAND ASSEMBLY

## Committee for Regional Development

### Water and Sewerage Services Bill: Natural Resources Wales

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**Members present for all or part of the proceedings:**

Mr Seán Lynch (Deputy Chairperson)

Mr Adrian Cochrane-Watson

Mr John Dallat

Mrs Brenda Hale

**Witnesses:**

Mr Robert Vaughan

Natural Resources Wales

**The Deputy Chairperson (Mr Lynch):** I welcome Robert Vaughan, sustainable land use manager at Natural Resources Wales. Like Phil, you can give a presentation, and we will then open up the meeting to questions.

**Mr Robert Vaughan (Natural Resources Wales):** Fine, thank you very much. It is funny being called "Robert". I belong to a new organisation. It has been around for two years, and, when all the email addresses were changed over, our official names were used. I am called Robert only by my mother, so please call me "Bob". I had no choice, so, if you try to contact me, you will find that my name is Robert Vaughan. There is not a lot I can do about that.

**The Deputy Chairperson (Mr Lynch):** You are going to go through the presentation that has been handed out.

**Mr Vaughan:** Yes, I prepared a presentation to act as an aide-memoire, and I can give you the electronic version of it later.

I work for Natural Resources Wales, which is quite an unusual organisation, in that it brought together three legacy bodies in Wales two years ago: Forestry Commission Wales; the Countryside Council for Wales (CCW), which was a conservation organisation; and the Welsh arm of the Environment Agency, which is very much an environmental regulator. Through the legislation that brought Natural Resources Wales into occurrence, the Welsh Government have very much looked at natural resource management — perhaps something that you will be more familiar with is payments for ecosystem services (PES) — as a core feature of the work that we do. You can see how that will fit into the sustainable drainage agenda, because we are about trying to maximise the benefits that the environment or environmental capital provides to us. Rather than looking at just one solution, we have to take a much wider view of things in order to see how we can gain the most benefit from the environment. Hopefully, I will allude to that as I go through my bits and pieces.

Thanks very much for inviting me along, which is a great pleasure. I want to run through what the problem is from where I sit, and the sustainable drainage features that exist. I do not want to teach

you how to suck eggs, because I guess that you know quite a lot about that, so I will briefly run over that type of thing and instead look at some of the broader issues. I will then run through some examples that you have seen over the past few days and some that you have not, to give you a broader view. Hopefully, Brenda, I will talk about some of the agricultural stuff that I have been doing as well, which will fit in quite well, I think.

**Mrs Hale:** Thank you.

**Mr Vaughan:** We have had major issues across Wales with surface water flooding, particularly in recent years. That has been an increasing problem across the UK but particularly in Wales. That is down to two features. First, there has been an increasing amount of soil sealing across Wales. We have seen pavements and urban areas expanding, as well as more building and various other features that have prevented the soil from being available to absorb rainfall. As a consequence, we are seeing more and more run-off into a system that was not designed to take it.

Colleagues of mine did a paper exercise a few years ago. The slides are available, but they may be a bit difficult to read. They took an area in north Cardiff and looked at how much impermeable ground there was in the entire area. They then looked at it in more recent times, about 20 years on, to see how much infilling had occurred. Quite surprisingly, it was a large amount — more than 20%.

When the estate was originally built, the standards for drainage were used. That suggested that the drainage was built to absorb a storm of a one-in-30-year return period. When you add extra hard surfaces to that area, you are reducing the return period of that storm. Therefore, a lesser storm will cause the same amount of run-off, and, consequently, the risk of flooding will increase. We know that that risk will continue to increase in Wales as more infilling occurs. Look at the big cities. You see it quite readily in Cardiff, but take the London example. There is a very good report called 'Crazy Paving' that was done by the Greater London Authority (GLA) a few years back. It identifies the impact that that has had on the run-off in an area but also the other impacts that Phil mentioned, such as the impact on the cost of houses, the social impact and the impact on biodiversity. There is a range of fallouts when you start to pave over areas.

As I said, we are trying to squeeze more rain into the drains. On top of that, we have to take account of what will happen in the future. One of the biggest impacts that we know will occur is climate change. It will be the same in Northern Ireland as it is in Wales. We are already seeing quite a dramatic change in the weather. Wales has just had its warmest day in November ever, further west. It was quite cold in Cardiff yesterday, but, for a couple of days, we have had over 22°C in west Wales. That is quite exceptional weather. We are seeing far more and far heavier storms and more rainfall. That is an additional hit for our urban drainage systems. Not only are we getting more run-off because we have built over more areas but we are getting climate change providing more rainfall. That one-in-30-year drainage system that we have had as standard across Wales is failing, even with lesser storms, and that will continue into the future.

Welsh Water did some work on that. The sites that you saw in Llanelli yesterday and Grangetown today are, as Phil said, retrofit schemes, where we are going into areas and looking at how we can improve existing drainage systems. The reason that we have to do that is that the vast majority of the housing in Wales will be here for at least the next 200 years. They are therefore a continuing run-off legacy. If we were to tackle just new buildings and try to put SuDS into those features, it would not be enough. Already, our sewers are increasing in their content because of rainfall getting into them. As a consequence, they will reach capacity, and we will have to put in new infrastructure quite quickly in many areas. Unless we go into those areas and retrofit, that extra expenditure will have to happen a lot quicker.

There is a small graph with three lines on it in the slides. One line shows where the increase in discharge into sewers is happening. Another line shows where it will go to in 30 years. You will see about a 1% increase a year in sewer flow. If we tackle just new developments and do not retrofit, we will reduce it by just a few per cent. It is a generational thing. It will take us 30 years just to return the capacity of our sewers to their current state. It is a major investment, and SuDS are the only way in which we can deal with it. It is quite an interesting point.

In Wales, about one in nine homes is at risk of flooding, which equates to a total of about a quarter of a million houses. Not all of that is surface water, and some of it is from main rivers. Natural Resources Wales is tasked with dealing with a lot of the flood-risk prevention that we look at and with building traditional flood defences in lots of different areas in Wales, whether that is in small villages or for city-scale schemes. We spend about £44 million a year on doing that work. We think that, with

climate change and the other impacts that we know are occurring, that cost will have to rise to about £135 million a year in 15 to 20 years' time. We are at a point at which we can start to make decisions on whether we want to increase that expenditure on traditional prevention and flood defences or switch to other options.

My feeling, having worked in flood defence for many years, is that we have to look at the whole toolbox. SuDS will be part of the solution, as will flood defences, because we have built on floodplains. We have invaded areas that would naturally be rivers' escape. We cannot sort that out. We therefore have to look at all the options that are available to us. SuDS are a very important part of that option.

I will move on to some of the areas that I have been involved with quite a lot. I talked earlier about the increasing amount of urbanisation in our towns. That has caused the problem of there being no capacity to absorb rainfall. We are also seeing that from modern agricultural practices, because of the amount of compaction that happens on our soils. As a consequence, we are seeing more and more run-off in our urban areas, and that has quite a dramatic impact. We are not only talking about very quick run-off creating flooding downstream. It also carries with it everything that is in the field, whether that be pesticides, organic matter, soil or sediment, which causes damage in watercourses. It also removes some of the natural seed bank that we have in the land. It is a major problem for us.

You will be tasked, just as we are in Wales, with dealing with the water framework directive. Diffuse pollution is one of the biggest issues that we have to tackle in Wales. It causes us many problems. I have some figures, which I have handed over to you. In Wales, 66% of the diffuse pollution arises from agriculture. There are other sources, obviously. We also have things from urban areas, but agriculture is a major component. We have been looking quite carefully at how we can use SuDS to sort that out. In a few moments, just to give you an idea of the types of things that we have done, I will talk about one of the schemes that we have been doing in Wales.

As Phil said in his evidence, we approached sustainable drainage through a tiered approach — what we call the sustainable train. We tried to look at all the benefits that can accrue from the approaches that we put forward. The first idea is to try to tackle rainfall as close as possible to where it falls. You then move out from there and look at different ways of trying to deal with it. No options are excluded. That is the key thing in this for my colleagues who say, "Well, I am a design engineer who is very interested in putting pipes in". More pipes are eventually a SuDS solution, but you have to start at the point at which rain falls, perhaps on the roof of a property. You look at having green roofs; at capturing the rainfall for rainwater harvesting, which can have non-potable uses; at getting it to infiltrate the ground locally; at containing it locally in ponds or retention areas; or, at the very end, at having a drain take the water away. I will not go into the detail of that. I have given you some examples of the different types, in the order that we look at them. The idea is that, when you look at a site, you look at those different options and choose which option, or group of options, best fits the location and provides you with the best possible option.

To go back to PES, you clearly need to look at what type of benefits they give to the local community, what benefits they give to biodiversity, what benefits they might give to water supplies, and so on. There is a range of costs and benefits that you can look at with these schemes. Nothing is excluded. All is open to being looked at, and you just pick the best mix for the locality. There could be a variety of different ways of dealing with that.

I will skip over a few of the slides — you can look at them at your leisure — and move on to the examples. You have heard a lot of fine words from me, but you may ask, "Where are the examples behind it?". You saw the stuff at Grangetown today. That is a very interesting site. Natural Resources Wales is involved in that as a minor partner. We do not have flooding in Grangetown. A lot of my colleagues who work on flood risk found it difficult to understand why we were involved in that. The reality is that this is an opportunity to look at how you can put those types of features into the landscape. We have a remit to make sure that we take our social responsibilities appropriately seriously. At the end of the day, why would you put water into a sewer when you have two major rivers on either side of the street? That defies logic, to be quite honest. It is about putting those types of schemes in place, allowing Grangetown to develop, and learning lessons from it. It allows Natural Resources Wales to learn those lessons and take them elsewhere across Wales.

It is a very important scheme. The important part of all of this is that the scheme will go ahead only if the local community buys into it. A very important part of all these features is that we are trying to provide extra benefits. Welsh Water will say that it will save money on its sewer pumping and treatment and future capacity; the local authority will say that it will have a nicer environment; but for

the locals it is about how their local community adopt this, enjoy the countryside being brought into their streets and how that then benefits them, whether it is through reduced temperature, improvements in air quality or better biodiversity. A scheme like that can accrue all those benefits.

You visited RainScape in Llanelli yesterday. There was a major problem for us in Natural Resources Wales. We had a position there where sewerage was overtopping from the system in the Llanelli and Burry Port area and getting into the estuary. It is still a potential infraction risk from Europe. Our local water company was having problems with the design of the system there. It looked to us to try to come up with solutions for it. We were looking to the local authority to stop development in the area, and so there was a Mexican stand-off, in effect. Everybody was looking at each other to try to sort out the problem. Over the last few years, all the parties have got together and looked at how they can solve the problem. Again, we will get a range of benefits from this, including sorting out the problem of spills into the Burry estuary, the removal of the problem with the bathing water directive in the area and, hopefully, the improvement of cockles. The key thing is that we will end up with a sustainable system locally and a lot of extra ecosystem services on the back of it. So it is a very important scheme, and, again, we will learn the lessons from that and move them elsewhere.

We have learnt from Grangetown and Llanelli. We have done a lot of work with local housing associations in Wales — most public housing is now with local housing associations — because we believe that there are great opportunities in working with them in a lot of the more deprived areas of Wales. In a moment, I will talk about a scheme in a rural area where we looked at creating shelter belts to allow sheep to live outside. I spent a very cold December day on a site in Maesteg a few years ago with an Australian colleague. I felt exceptionally sorry for him because he was not used to seeing the sun out, but also it was about -2°C and he was quite cold. The message that we took away from there was that we were quite prepared to allow people in this particular site at Brynheulog, which means summer hill, to be exposed to wind howling down their streets, yet we were doing work in mid-Wales to protect sheep from the same thing. Why were we not prepared to protect locals in that area by introducing a greener environment that would reduce wind speeds, improve the local environment and improve drainage and water quality? It is quite an interesting approach to try to get the local authorities and housing associations involved in that type of work and to invest in their housing, to invest in their communities and to get the community involved as well. As I said at the beginning, that is a very important part of it.

Finally, I will move on to the agricultural side. Compaction is not something that we just find in our urban areas; it happens right across Wales. We have seen a major problem with soils in our fields because of the way that we have undertaken our agricultural practices. As a consequence, we are seeing far, far higher run-off from agricultural areas. That is leading to flooding downstream. It is causing pollution, as I mentioned earlier. A major project that we have done in mid-Wales was working with a group of 10 farmers in something called the Pont Bren catchment. That was a farmer-led initiative where the farmers started doing work on the landscape because they were struggling with keeping sheep outdoors over winter. They talked to a local woodland organisation, which suggested putting in shelter belts, and, when those were put in place, within a couple of years, they started to notice that run-off from the fields was being absorbed in the shelter belt areas. The subsequent research into that found that the planting of trees on the edges of fields was increasing infiltration by about 67 to 80 times — not per cent, but times. The roots open up the ground, they break up the compaction in the upper part of the soil surface and water then infiltrates back into the ground and is held there. As a consequence, the scientists — we came into that piece of work — looked at what was happening and found that we could reduce flooding downstream by quite a percentage — and improve water quality downstream — because we were trapping sediment in those shelter belts and it was improving the water quality because none of the organic matter was washing off the fields directly into the watercourse.

Earlier, you asked how to get farmers to do that type of stuff. In these cases, the farmers were doing it themselves because they were only taking out very small parts of the farmed area. If you were to talk directly to farmers, they would tell you that this particular approach was often the area that caused them the most problems. It was in the corners of fields where they often had difficulty rounding sheep up, on stream margins where sheep went when they were ill and they had difficulty moving them, and on the steeper banks where they often made hay later in the year and were scared of driving the tractor on it. They were placed where the farmer wanted them, which was not, perhaps, the best location, but they were only taking up 5% of the landed area.

We have used that work to try to influence our agricultural schemes in Wales, such as the Glastir scheme. We have worked quite closely with the Welsh Government over the past five to 10 years to identify where these locations exist, upstream of flood risk areas, where can we find the landscapes

and fields that have these types of features. It is down to the type of soil, the improved grassland and the type of grass that they grow there, as well as what type of agriculture they are undertaking. Incentives are then put in place to allow farmers to get money to plant these shelter belts and other features in the landscape. We are currently working with the Welsh Government on the next phase to improve the work that we have done in the previous branch in allowing farmers to get that work. Similarly, with Natural Resources Wales having a remit on woodland, we are also influencing the woodland planting scheme for the same approach. We are also doing other innovative work around fencing and various other things to try to help reduce the costs so that farmers are more inclined to take this feature up. I can provide more information on that, if required, and on anything else that I have talked about today.

In conclusion, I will just give you a bit of background on what the problem is in Wales on climate change, the water framework directive ideas and the fact that we are sealing up a lot of our soils in both urban and rural areas. Some examples are Grangetown, Pont Bren, Llanelli and Maesteg. From a Natural Resources Wales point of view, we see SuDS as a cornerstone of the work that we do on what we call natural resource management and payments for ecosystem services.

**The Deputy Chairperson (Mr Lynch):** Thanks very much, Bob. I will bring members in.

**Mr Cochrane-Watson:** Thank you for your evidence today. I was very interested — I asked a few questions yesterday — in the business case for some of the initiatives. I note that, on page 4, one of the slides talks about the cost of flooding. In my constituency in August 2009, we had a severe storm with severe rainfall. Large urban areas were flooded, and there was a joined-up approach to putting in place precautionary measures. It was deemed to be a once-in-80-years storm, but I think that they are all too common now. Precautionary measures were implemented in a joined-up approach where key stakeholders came together. I am really intrigued by some of the figures that you have shown. Almost a quarter of a million properties are affected, one in nine homes is at risk and annual flood damage costs £200 million. I do not know what our statistics in Northern Ireland would show, but we are probably on a par.

**Mr Vaughan:** I would guess so.

**Mr Cochrane-Watson:** Yes, I would guess so.

I am really intrigued as to the business case that can be put forward. I am sure that you or your colleagues have had to do that, because it is how you want public money to be spent and how you can justify it over a medium- to long-term payback. One thing that has alarmed me post-August 2009 is that the insurance companies raised their premiums for many of the people in my constituency who were at risk. They made it impossible to insure homes, and I would like to think that measures such as you are taking could actually be acknowledged in premiums in the insurance sector. That is something that I was just thinking of. They are always quite slow to bring down their costs, or to bring down their premiums, anyway. On the business case, have you any examples that you might be able to provide — not today, of course, but maybe in the future? I am really intrigued to see what the payback periods would be.

**Mr Vaughan:** It is one of the key things. Phil was saying he has worked in this business for 20 years, and I have been involved for almost as long as Phil. I will say that I am younger than he is, while he is out of the room. It is one of the things that we have always struggled with because, in traditional flood defence, it is very easy to build a wall, whether that is from earth or from concrete, and work up what the cost is and the return period of it. One of the reasons why we have done so much work on things like Grangetown and Pont Bren was to be able to come up with an equivalent level playing field so that we can work out the costs for those schemes and the flood defence that they provide. That is the type of information that we are trying to gather so that we can compare alternative, say, soft engineering with hard engineering on an equivalent basis.

A little further on from that, the difficulty that we have is that, often, the hard engineering solutions tend to have one or two benefits. A cycle track on the top of a flood wall will be a recreational benefit, whereas perhaps planting woodland upstream will have a range of other benefits on top of that. Trying to cost those is a bit more difficult, but, in the examples that we have done so far, we have not had to worry too much about costing those additional benefits because the costs have worked out to be quite a lot less to do the softer environmental options, although the surety of the risk that they reduce flooding by is perhaps not as strong as building a flood defence wall. That part of the science is not as well developed as perhaps we would like it to be.

**Mr Cochrane-Watson:** Unfortunately, my experience of post-August 2009 was of the hard-engineered response, which had very little community benefit and cost an awful lot of money. Thankfully, in those days, there was possibly the money available to invest in that. I do not know whether it would be as readily available today from the relevant stakeholders.

**Mr Vaughan:** I think that this is the thing. Because of climate change and because of the increasing amount of run-off that is occurring, it is not only that we have less money to spend on flood defences now but that the cost of flood defences will increase in time. In a way, two lines are drawing apart, so we have to look at alternatives. One of the arguments to get the idea of the Pont Bren approach into Glastir was that this was a good thing for farmers and was reducing the impact that they were having, but it was an alternative source of money that could benefit flood risk, so it was not coming directly from the Welsh Government's funding of flood risk. It was a broader range of different moneys.

**Mr Cochrane-Watson:** Was that available for the agricultural community?

**Mr Vaughan:** Yes, for the agricultural community.

**Mr Cochrane-Watson:** Was that just in GB or for Wales?

**Mr Vaughan:** That was within Wales. It is GB as well because Glastir is the European-funded environment and agricultural scheme, so there is an amount of domestic money that goes into that and it also draws down money from Europe. It was a way of broadening the impact, so it was done very much for the benefits for water quantity and water quality within a catchment area, but it benefited flood risk as well as improving the quantity and quality issues upstream on the farm.

**Mrs Hale:** Bob, that was really interesting, and I really buy into all of this stuff big time. You talked about climate change, and I guess that climate change tends to be the buzzword for disaster. There tends to be knee-jerk reactions and crisis management instead of long-term planning. I see from the predicted rainfall in the slide that you gave us that we are all going to be hit really badly apart from the sunny south-east and London, so we know that Westminster might not really buy into this as much as the devolved Governments do. I am pleased to see that it is a devolved issue. I have two questions. How seriously are the Welsh Government taking this? Phil alluded very briefly to the 2010 Act. I am not really aware of what that is in Wales. How serious is the Minister in currently taking this on board? Given the predicted rainfall that is coming our way in the next 50 years, it is vitally important that Susie and Peter Storm buy into this in the general public and that they are caught by it. How are the Welsh Government educating and informing the general householder out there into buying into these schemes?

**Mr Vaughan:** I think that we are still in early days on that. I think that the big wake-up call for Wales, and possibly England as well, was the floods that we saw in the Somerset Levels quite recently. To an extent, there was a bit of smugness in Wales because we have something very similar on this side of the Bristol Channel, and there was no flooding there when the Somerset Levels were hit quite badly. As regards education, we are slowly drip-feeding this type of information out. In my experience, these types of innovative changes take 10 or 15 years to become part of the public's common consciousness. That has now started. People are more open now to discussing this type of thing. That is something that gets picked up by the political environment as well. Politicians now tend to look at this as more of a solution. The answer really is that we are at the very start of this. I think that we have no choice but to adopt it, but, at the moment, perhaps the interest in it is not as great as it could be. That is something that we are working on.

**Mrs Hale:** I suppose that people really are not interested until their home or land is flooded, and then they want to know how to fix the problem. Again, you have the crisis management problem.

**Mr Vaughan:** Yes, absolutely. I think that that is why, when the flooding of the Somerset Levels happened — we had the same floods back in the late 2000s; 2009 — a lot the stuff that came out of that and the reviews that were done identified a need to look more at natural solutions rather than just hard defences. The agenda is now changing that way, but I think that we still have a long way to go before it becomes accepted that it is part of the broader church of solutions.

**Mr Dallat:** On the very same theme, we all have our own paradigms about what things should look like, even down to the car. My drainage system is a big pipe. That is it. Given that the problem is so fundamental and that even, I think you said, over the next 30 years, if we were to be involved in retrofit

alone, we would probably still not solve the problem, is time on our side to allow, as you just said, 15 years to educate the public and change those paradigms, or is the crisis greater than that?

**Mr Vaughan:** That is a very good question. I think that we are at that tipping point at the moment. We have the information available to us. We have done a lot of work over the past few years doing the modelling and research to find out what is happening for the future and what types of things we can do to solve the problems. We are now heading into those areas. We have had some catastrophic incidents already that have perhaps brought different issues to the public attention. We are getting interest from insurance companies at the moment. I met some a few years ago. They very politely received our discussions and then we never heard from them again. More recently, they are now coming to us and asking us questions about the types of things that happen. You are right to ask whether it is too late. I think that it will be in a few years' time. I think that we are right on the cusp at the moment of still having enough time to go some way. We will never stop flooding; it will always occur. The game that we are in is whether we can actually try to reduce the impact or the risk.

**Mr Dallat:** We heard from one of your local councillors this morning; his name I have forgotten, but I got the impression that this might be a case of carrot and stick and that people — developers or whatever — might well need to be told, "Look, it is this way or not". Do you buy into that?

**Mr Vaughan:** There is always a regulatory background. That would perhaps tinge my answer. I think that you always have to have a certain amount of the stick and the carrot. I am a great believer in the carrot, because I think that it is the important way to get people to buy into this. Some of the examples that I have demonstrated here, and the ones that you have seen, have been very much of the carrot approach. We have gone to the local community and people like Welsh Water and the local authorities and said, "Look, guys. This is a way of trying to solve this problem," and they have bought into that. That is a very good way of trying to deal with things. At the end of the day, there will always be a certain number of occasions when you cannot perhaps get to where you want to get to, and the option then is the regulatory role. We now have sufficient knowledge and evidence to be able to demonstrate what the different options are. If we have got flooding or predicted flooding in a certain area, we can now go to those locations and say, "These are the options that you have available to you. This one will provide you with a wall and stop flooding, but it will look pretty ghastly outside your door. These are options for soft engineering upstream that will provide additional benefits. They both cost the same. Which one would you choose?" That is the idea behind getting people to buy into that type of approach.

**Mr Dallat:** Over the past couple of days, we have certainly picked up evidence of enormous benefits, not just for road safety but for health and many other aspects of life. It seems to me that a multi-agency approach may be best. However, even having picked up on all of those — I say this as an ex-smoker — many people go on smoking even though they are told the benefits of stopping, and nobody is going to pass a law to say, "Stop it. Sorry, folks". That is what ex-smokers do.

**Mr Vaughan:** On the agriculture side, one of the reasons why I guess that has never been the approach, and why flood defences have been built as what I call an end-of-pipe solution, is that we have tended to do this in the silos that we talked about over lunchtime. We tend to have an end-of-pipe solution to most of the issues that we face. Whether it is a sewage works or flood defence, we tend to try to stop the problem when it is on our doorstep, rather than look at trying to solve it at source. That is a sort of automatic reaction. From the agriculture or landscape side that I have discussed this afternoon, we are very much going back to the source of the flooding. You will not get every land manager or farmer to buy into that, because some will not want to go down that route. However, the offer is there. We have the evidence and information, and if you can get a large proportion to buy into that approach, you will hopefully have sufficient benefit to make it worthwhile.

**Mr Dallat:** We have seen the benefits of it over the past couple of days, and we have bought into it. The challenge for us is to sell this when we go back home.

**The Deputy Chairperson (Mr Lynch):** Yes, Bob, that poses the question of how important political will is in this. We have been coming to this in only the past six months. We did not know that SuDS were anything other than something coming out of a sink. *[Laughter.]*

**A Member:** That is it exactly.



**The Deputy Chairperson (Mr Lynch):** We are educating ourselves only now. How important is the political will?

**Mr Vaughan:** The political will is vital at the end of the day, because you have to have the regulatory approach and buy-in from Government to make these things happen. As Phil said earlier, we have taken the opportunity over a number of years to make sure that SuDS is hardwired into a whole range of things, including Tan15. Although it is not something that they have to do, the benefits of doing this type of thing are very well explained in there. The political will from the Minister had to be there to allow us to put money into farmers' pockets in the work that we have done with the Glastir approach, and it is often difficult for Governments of certain colours to be seen to be paying farmers to do things. The will is there because they recognise the additional benefits of proper land management and the wider benefits that those can provide.

**The Deputy Chairperson (Mr Lynch):** Brenda brought up the point that Europe has a role here because of the intensification of farming. We talked about ditches and hedges, and we in rural communities get flooding because there are no ditches, trees or hedges as there used to be. They are gone, because every patch is for single farm payment.

**Mr Vaughan:** Yes. It is interesting to look at our Pont Bren project. We had a fairly severe series of thunderstorms in the area a few years back, and we looked at the area where we had flooding. It did not flood in that particular catchment but it did next door, and all the hedges were grubbed out at right angles to the watercourse. The ones that they had kept were at 90 degrees to the watercourse, which had no impact in stopping the flow. So there are issues in that way, and it is important that we again take farmers back to where they were before to an extent. They have been pushed down the road of doing things the way they do, and we are trying to give them back the evidence that their forefathers perhaps had of how to manage the land.

**The Deputy Chairperson (Mr Lynch):** Yes. You said that SuDS was the only way forward, and I think that we agree that it is if we are to manage the surface water.

Unless members have any more questions, I will thank you very much on behalf of the Committee, Bob, for giving evidence here today. It has been very useful.

**Mr Vaughan:** Thank you, and if there are any items that you want, I can provide further information.

**The Deputy Chairperson (Mr Lynch):** Absolutely, and that is welcome. We will adjourn for a few minutes until the next witness arrives.