OFFICIAL REPORT
AITHISG OIFIGEIL

Environment, Climate Change and Land Reform Committee

Tuesday 5 November 2019

Session 5

The Scottish Parliament
Pàrlamaid na h-Alba

Tuesday 5 November 2019

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ENVIRONMENT, CLIMATE CHANGE AND LAND REFORM COMMITTEE
29th Meeting 2019, Session 5

CONVENER

*Gillian Martin (Aberdeenshire East) (SNP)

DEPUTY CONVENER

*Finlay Carson (Galloway and West Dumfries) (Con)

COMMITTEE MEMBERS

*Claudia Beamish (South Scotland) (Lab)
*Rachael Hamilton (Ettrick, Roxburgh and Berwickshire) (Con)
*Angus MacDonald (Falkirk East) (SNP)
*Mark Ruskell (Mid Scotland and Fife) (Green)
*Stewart Stevenson (Banffshire and Buchan Coast) (SNP)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Kathryn Brown (Committee on Climate Change)
Baroness Brown of Cambridge (Committee on Climate Change)
Jo Dow (Business Stream)
Sam Ghibaldan (Customer Forum for Water)
Douglas Millican (Scottish Water)
Professor Simon Parsons (Scottish Water)
Peter Peacock (Customer Forum for Water)
David Satti (Water Industry Commission for Scotland)
Chris Stark (Committee on Climate Change)

CLERK TO THE COMMITTEE

Lynn Tullis

LOCATION

The Robert Burns Room (CR1)

Scottish Parliament

Environment, Climate Change and Land Reform Committee

Tuesday 5 November 2019

[The Convener opened the meeting at 09:34]

Decision on Taking Business in Private

The Convener (Gillian Martin): Welcome to the Environment, Climate Change and Land Reform Committee's 29th meeting in 2019. Before we move to our first agenda item, I remind everyone to switch off their mobile phones or put them on silent, as they may affect the broadcasting system.

I welcome members of the California state legislature, who are in the public gallery. They will speak to our committee later today.

Agenda item 1 is a decision on whether to take in private agenda items 4 and 5. Do members agree to take those items in private?

Members *indicated agreement.*

Climate Change Adaptation

09:35

The Convener: Agenda item 2 is to hear from the Committee on Climate Change about Scotland's climate change adaptation programme. I am delighted to welcome from the CCC Baroness Brown of Cambridge, chair of the adaptation committee; Chris Stark, chief executive; and Kathryn Brown, head of adaptation. Good morning.

Baroness Brown of Cambridge (Committee on Climate Change): Good morning. Thank you for inviting us.

The Convener: It is very nice to see you all. We have been looking at your comments on the Scottish Government's previous climate change adaptation strategy, and I have a couple of questions about your methodology and how you came to your recommendations and conclusions on the strategy.

Throughout your comments and recommendations, you refer to issues to do with data gaps. We are interested in that issue and the inability to assess things because of data gaps. What process allowed you to determine the adaptation priorities—the 12 priorities for buildings and infrastructure, the 10 for society and the five for the natural environment?

Baroness Brown: I will ask Kathryn Brown to take that, because she has been closest to that issue. Of course, the matter is about the climate change risk assessment—CCRA2—and what arises from that in relation to the United Kingdom and particularly in relation to Scotland. It is also about the areas where we can measure adaptation. It is a combination of the two. Kathryn will talk you through the detail.

Kathryn Brown (Committee on Climate Change): For the most recent report, which was published in March, we chose the same adaptation priorities as we did for our assessment of the first Scottish climate change adaptation programme—SCCAP—report in 2016. When looking at the first SCCAP, we found that the outcomes and the timeframes relating to how the vision and actions were delivered were a little vague, which made it difficult to put in place a proper measuring process to ascertain whether the outcomes were being met. Therefore, we have come up with our own set of adaptation priorities—we have done the same for the national adaptation programme in England—that are based on the type of climate risk and receptor that we are looking at.

Splitting things by receptor—receptors are things such as people, buildings or wildlife—makes it easier to assess progress towards particular outcomes and to make an assessment in measuring vulnerability. However, we also need to think about how the risks interact in relation to the receptors. By splitting into the 27 priorities, it was easier to come to those outcomes. As I have said, we did that for the England programme, too.

The Convener: Stewart Stevenson has a question on that.

Stewart Stevenson (Banffshire and Buchan Coast) (SNP): I want to probe whether you are looking at the issue simply in terms of the effects, or whether you are attempting to baseline where we are, so that you can identify the delta from that baseline. Perhaps you are doing both, which I suspect is what we might want to see, because what I see before me says comparatively little about baselining and quite a lot about the critique.

I ask that question because, throughout the period since the introduction of the Climate Change (Scotland) Act 2009—as you will know, I took through that legislation—the shift in baselining has been a difficulty and has distorted our view of what may be happening. Sometimes, that has led to overexaggeration; at other times, it has led to underreporting of progress.

Baroness Brown: That baselining issue is a particular challenge when it comes to reducing CO_2 or greenhouse gas emissions, but it is not such a significant issue when we are looking at adaptation priorities. We do not see lots of rebaselining of trends in seabird populations or something like that—we have good data sets running on some of those things.

Our methodology is, first, to consider whether there is a plan. Are we presented with a plan that is actually focused on adaptation and does it take changes in climate into account, such as the kind of things that the Met Office is predicting for a 2°C pathway and for something closer to a 3.5°C or 4°C pathway? Sadly, even though we are all working hard towards 1.5°C—Scotland has achieved real progress in that regard—there is still a significant probability that, globally, we will not be on that pathway. We must take into account the risk of much more significant climate change. Is there a plan and is it based on science? Are actions taking place? Research is good but we need to be moving to action. Is progress being made in managing vulnerability?

Of course, we may see action taking place but not see progress on vulnerability, so we need to ask whether we are taking the right actions. Perhaps we have not fully understood the scientific mechanisms, so the actions may not actually be addressing the vulnerability. Alternatively, there might be a timing issue, so we will not see the impact of the actions until a number of years down the road. We do the assessment according to whether there is a plan, whether actions are taking place and whether we see progress in measuring vulnerability.

Kathryn Brown: I will add a little about indicators. The baseline issue mainly comes in when we are looking at the third of those questions, and to some extent the second. When we are looking at changes in vulnerability as our measure of progress, we have baselines for quite a lot of the indicators. In Scotland, ClimateXChange has done a lot of work for us to populate those indicators. We have baseline numbers for things such as heat-related deaths or trees infected with red band needle blight but, as Baroness Brown says, we are more interested in the direction of change in vulnerabilities. Are we getting more or less vulnerable to climate change risks? That is really what we are trying to look at.

The Convener: As I mentioned at the start, there are lots of areas throughout your observations and comments where you are unable to make an assessment on progress because of a lack of evidence. What do you recommend can be done to address that?

Baroness Brown: We believe that some of those are quite straightforward. A number of the gaps in the second SCCAP are where something is about be published or we are about to hear about things, so we hope that, in a year or two, some of those evidence gaps will be covered. Some evidence gaps are just about collecting the evidence. For example, we cannot see any data on progress on the use of sustainable urban drainage systems in Scotland and we have not been able to find evidence about housing developments in potentially flood-prone areas.

Those are just issues about collecting the data and are relatively straightforward. There are some much more challenging areas that the whole of the UK is grappling with, particularly around the natural environment. We are still trying to identify the right indicators for improving the resilience of the natural environment and therefore what data we should collect.

A particularly important issue relates to soils, and farming in particular. One gap that we are a bit concerned about in the second SCCAP relates to the replacement of the common agricultural policy, what sort of environmental land management scheme Scotland will introduce and how that will take into account the need to adapt by improving soil quality, so that agriculture can continue to operate at least as effectively as it does today. There is also a question about how that replacement scheme will take into account things such as the use of land to produce natural

flood resilience by appropriate tree planting or by intentionally allowing certain areas of farmland to flood to protect parts of the built environment. Until we see what that replacement will be, we will not know how good progress is in that area. However, doing that will require all sorts of data collection that probably does not go on at the moment.

09:45

The Convener: You alluded to this earlier, but are you seeing similar gaps or trends throughout the UK in those areas, or are they just in Scotland?

Baroness Brown: In the natural environment, there are a lot of gaps that are common to the UK as a whole. There is a real opportunity for collaboration. Some of it is straightforward data that just needs to be collected, such as data on SUDS, but other data is much more complex, such as some of the data relating to the natural environment. The latter is more Kathryn Brown's specialist area, so she may want to comment.

Kathryn Brown: The gaps in natural environment data that are very similar to the gaps UK-wide are metrics around soil health, pest and disease incidence and vulnerability to different pests and diseases. Some of the water quality metrics are also somewhat lacking throughout the UK.

Historically, we have seen more data gaps in Scotland. A particular one that I would draw out is flood risk management. In the past, we have not had good data on the number of properties being built in flood risk areas or future projections of flood risk. The recent update to the national flood risk assessment has helped to plug some of those gaps, which is positive, but gaps remain, particularly, as Baroness Brown said, on uptake of sustainable urban drainage options and the adoption and maintenance of SUDS. We highlighted in one of our recommendations that that is one of the key areas in which we would like more to be done.

The Convener: We will return to the issue of flooding later. On the theme of the methodology, to what extent do the adaptation priorities overlap and interact? You are putting together the information and categorising it, but am I correct in saying that the priorities all feed into one another?

Baroness Brown: It would be very nice to compartmentalise everything and say, "You have to look at this, you have to look at that and then you have to look at adaptation." However, one of the challenges generally that we find with adaptation is that it runs through everything. It relates to how we live in our towns and cities, how we run our health service, how we improve our farming and how we do our forestry, so we cannot take it out and put it on the side.

The fact is that our climate will be changing. Even if we are on track for 1.5°, there is still quite a lot of climate change to come, which means that we have to think about constructing our buildings differently and we have to ensure that our hospitals are prepared to manage highly vulnerable people in what will be much hotter conditions. We have to recognise that, unless people's homes can be kept at a good temperature in winter and summer, when people are working from home, their productivity could be significantly lower. Adaptation is not a separate thing. If we have the ambition to make our farmland more productive, we must recognise that we have to do that as the soil and weather are changing. Adaptation has to be a thread that runs right through everything and should not be put in a category at one side. That makes it hard to think about sometimes.

Chris Stark (Committee on Climate Change): As you have probably picked up, adaptation is very broad, and we have attempted to draw together the priorities in as discrete a way as possible. They overlap, but we have made a very good attempt to distil them into meaningful and distinct categories. We are on a journey to make that easier for the committee. Similarly, the policies that flow from the process need to be better aligned to those things in future.

Finlay Carson (Galloway and West Dumfries) (Con): Of the five adaptation priorities in the natural environment overarching theme, three are showing slow progress and two are showing high concern. That is reflected in a significant loss of biodiversity and the biodiversity emergency that we are experiencing in Scotland. I want to ask about the pressures on freshwater habitats, particularly from invasive non-native species. How easily can that be addressed? Is enough being done, considering that there appears to be a reduction in funding for tackling the issue?

Kathryn Brown: In our assessment of freshwater habitats, we put rivers and lochs together. There is quite a difference between loch condition and river condition. In general, loch condition has been quite good over the past five years, but we found that, on river condition, quite a few of the targets that are set out in the water framework directive were not met.

The issue of non-native species is tricky, because we expect new species to come into the UK and to move further north as the climate changes and their invasiveness or otherwise depends on the degree of harm that they cause. Not every non-native species that comes into the UK will be a problem species, but some species are extremely difficult to deal with and are causing

a lot of problems. For example, there are certain types of mussels and new types of fish that have come in that are disrupting the food chain. Once those species are established, it is very difficult to eradicate them and control programmes have to be put in place.

As part of our UK-wide work, we have picked up on the way in which climate change is factored into policy on invasive species. Generally speaking, if a new species has come into the UK and we think that that has been caused by climate change, it is not included in the policies for invasive species. From our perspective, that is obviously a problem. What should matter is not what caused the introduction of such a species but the degree of harm that it is causing. We think that there needs to be more join-up between the climate adaptation policy groups and the invasive species groups to prioritise based on which species they think will be most harmful.

A lot of what needs to be done comes down to monitoring and trying to prevent introduction and establishment in the first place because, once invasive species have become established, it is much more costly to carry out eradication programmes.

Finlay Carson: Given that the water quality in almost half of Scottish rivers is not improving, and given the presence of what could be described as traditional invasive non-native species, such as giant hogweed, Japanese knotweed and rhododendron, to mention a few plant species, can we win this battle? We are not even in the midst of the biggest impact of climate change that we can foresee, and we are failing to address the traditional invasive non-native species. Can we win the battle if we do not start to improve our performance and provide dramatic increases in funding to get rid of such species?

Chris Stark: Gosh.

Baroness Brown: That is a very difficult question, isn't it?

Of course, there is also the balance that Kathryn Brown drew out, which is to say that some of the non-native species will become the new normal. The issue is the ones that will, for some reason, be damaging. We need to do a lot more thinking about which of the non-native species we are worried about.

We recognise that, as the climate changes, our wildlife will change. We cannot persuade wildlife that likes cooler temperatures to stay if it gets too warm for it, but we can, we hope, maintain or even improve biodiversity, because new wildlife will come and visit or colonise. The same goes for plants. Some of those new species will just become what replaces beech woods, or whatever, in the future. We must recognise that our landscapes will change.

We need to identify the non-native species that we think could be damaging. As Kathryn Brown said, they could dramatically alter the food chain and could affect species that would otherwise have stayed here but will not because they will not be able to find the right things to eat. It is a case of narrowing down the field and finding out which species we think could be dangerous. That may or may not be a large number. If it is a large number, we will have a really difficult time but, if we can narrow it down to a small number, we might have a chance of addressing the issue.

Finlay Carson: Do you think that the SCCAP adequately addresses the CCC's concerns in relation to what it identifies as areas of high concern?

Chris Stark: That remains to be seen.

To go back to your earlier question, it is possible to win if we define "winning" properly. It is a case of ensuring that we are well adapted to what is coming and that we have reduced our exposure to those things to which we are particularly vulnerable here in Scotland.

I do not know whether the second SCCAP does that, because we have not made a full assessment of it; I can say that overall, when we look at these issues in the second programme, it is much better brigaded under the right things and it gives me much greater confidence that the Scottish Government has started to put together a proper plan that might allow you to get into the question of whether we are winning. Overall, it looks okay—it looks as though it is heading in the right direction. However, I cannot give a definitive answer to that question.

Baroness Brown: With regard to freshwater rivers and lochs, there is a mention of beaver protection, which is a great nature-based solution in helping to regulate flow. There is a mention of the river basin management plans; I do not think that that is new, but we have not looked at that in detail. There is also a mention of research on river temperatures, which is important. However, on our first look at SCCAP 2, there is not a huge amount in the area that looks as though it is taking us forward. Again, we have not looked at it in detail, but it looks as though the area needs continued significant focus.

The Convener: Stewart Stevenson has a question on invasive species.

Stewart Stevenson: I have a simple question that might have a complex answer, although I hope not. Is the Scottish Government—and is the UK Government, in so far as you can comment on it—operating with the right international advice?

The problem is not geographically constrained to these islands, and strategies that are being adopted elsewhere might be appropriate here. The same invasive species could be moving up due to climate change in Scandinavia, North America and so on. Are we part of an international effort?

Baroness Brown: We are—just—in the process of producing the third climate change risk assessment for the whole of the UK, and we have particularly asked all our researchers and chapter co-ordinators to look closely at the specific issues for the devolved Administrations. I hope that we will be able to produce a strengthened report for Scotland and that it will bring in international research in all these areas.

You make a good point about whether we are doing enough with, in particular, our northern European neighbours. On flooding, we talk a lot to the Dutch, who have extensive experience in the area and some very good practice. In the forthcoming conference of the parties to the United Nations Framework Convention on Climate Change in Glasgow in 2020, we might want to have as one of the themes the sharing of information and experience with relevant countries. That could be a useful thing for us to cover.

Kathryn Brown: On the detail of invasive species or other species coming in from Europe, there are very good surveillance programmes in place that are co-ordinated European Union programmes. We know where the species are and how they are moving. Finlay Carson mentioned giant hogweed, which is a health risk. That plant is established, but there are good public awareness programmes on it and an eradication programme is in place. However, other things are coming in. We need to think about different species of mosquitoes and what they are carrying. Tick-borne encephalitis has now arrived in the UK, although that might not be because of climate change. Climate change might be one of the driving factors, but it might be to do with migratory species or there might be other reasons.

Part of the battle is to know where such things are and spot them as soon as they arrive. Across the UK, we have very good processes in place to do that. The problem is probably more that we are not keeping such a close eye on some species that are not on the target list of invasive species. As Baroness Brown said, some of those may be a problem, but some of them may be examples of the natural progression that we will see because of warming temperatures. We strongly highlight that conservation programmes across the UK, including in Scotland, need to start taking those inevitable changes into account. At present, we are trying to protect what is there and keep it as it is, but in many cases that will not be feasible in the future.

10:00

Mark Ruskell (Mid Scotland and Fife) (Green): I want to go back to your comments on agriculture, soil conservation and land management. We talked about that area a lot in relation to mitigation and the climate change bill, and there is a reference in the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 to agroecology.

What do you see as the way forward? What should be the defining approach? How can we manage soils better so that they can not just lock up carbon, but become more resilient? What does that look like on the ground? For a farmer or someone who is running an agricultural advisory programme, what key approach is needed to tackle the two issues of adaptation and mitigation?

Chris Stark: The first thing to say is that everything is about to change and we need to be prepared for that. The point when we leave the CAP will be a really important moment for land managers up and down the UK. We know that plans are afoot to replace it with something else both in Scotland and in England and Wales, but the plans in England and Wales are much better developed than the plans in Scotland.

We must start to consider land as a natural asset and not just as a way of producing food. When we open that up, we get into the discussion about public money for public goods—that is certainly how it is framed at Westminster—and among those public goods, I would list all the things that you mentioned in your question. I do not yet see in Scotland the same commitment to developing a detailed policy on those issues, which causes me some concern. We think about climate change adaptation and mitigation, but when it comes to soil and the use of land in Scotland, I do not think that we could say that we see a fully developed policy prescription in the making. That is one reason why I continue to rank soils and agriculture as being of high concern. We must continue to focus on that.

Baroness Brown: Soil quality and health is one of the areas of challenge for data. The SCCAP mentions that soil research is to be done to identify metrics and establish a soil health framework. It would be good to see some timescales for that, although I know that it is challenging, because it is one of the fundamentals.

You have some different challenges up here from what we have in East Anglia, for example. In East Anglia we are looking at massive loss of topsoil and the impacts of drought, while up here you are looking at what is already a 27 per cent

increase in rainfall since the 1960s. There are some very different challenges for soils in different parts of the country.

Mark Ruskell: The Scottish Government has a plan for transition for agriculture, certainly for the next four years. Have you looked at that? Is your analysis based on current policy or on what you think may be coming after that? Are we moving quickly enough?

Chris Stark: We have not made a full assessment of the second SCCAP, but I note that it does not mention what is going to happen with that policy programme. I have looked at the development of this, because it is one of the big areas. When we think about UK-wide climate change issues, it is one of the areas that I am most concerned about. Scotland is a third of the landmass of the UK, so it is a really important issue for Scotland. I see Westminster motoring on and developing a replacement for the CAP—although we could criticise that, too—but I do not yet see the same detailed prescription being laid out in Scotland. I think that we will be badgering the Scottish Government to see that over the coming months and years.

Baroness Brown: One issue that we identify is that adaptation has to run through everything. The fact that the environmental land management scheme is not even mentioned in the second SCCAP shows that somebody somewhere did not grasp that adaptation is going to be critical. The programme may well contain some important elements of adaptation, but it did not get thought about when the SCCAP was being put together. It is slightly worrying that the idea that we must think about adaptation is not yet entirely cultural, if you know what I mean—it does not come entirely naturally.

We have to say well done to Scotland on peatland restoration. You have already beaten your peatland restoration targets. They were not terribly taxing, but you have now set some much stronger ones. That is really positive to see, because we all know that the functioning of peat is critical to things such as wildlife, water quality and adaptation. Globally, peat is the single best store of carbon that we have. Well done on being really ambitious on peat. We need the rest of the UK to take on that ambition.

Mark Ruskell: It appears that there is not much linkage on soil conservation, but is there enough linkage into the work on freshwater ecology? We have had some worrying evidence that there may be a scaling back on river basin management plans. Are those plans a way to drive catchment-level work on soil conservation? How do we ensure that we are taking an ecological approach to dealing with soil and water together?

Kathryn Brown: I think that RBMPs have been useful in allowing us to think about things in a more spatial way at a catchment scale, as you say, and to look at the interactions with what is happening on farms, either with diffuse pollution into river courses or, in the case of peat, with washing of peat into watercourses. We have tended to find that water companies are key players in the issue. Treating water can be expensive, particularly if there is discolouration because of peat loss into it. Millions of pounds are spent on water treatment, so a really good road into funding peatland restoration projects has been to do them through water companies.

What we would really like to see through future environmental land management schemes is a much more holistic approach, and making payments for public goods rather than for areas of land or anything else that is used as a metric is a very good mechanism to achieve that. However, as Chris Stark said, we have not yet seen any of the detail for Scotland on how that programme might work or where adaptation features. It is still challenging to understand soil health and get the metrics to show what it is like across the country. That is the fundamental issue that we need to look at.

Mark Ruskell: Is anybody doing that work anywhere in the UK? Is there a consistent analysis of the metrics of soil health? Who should be leading on that?

Chris Stark: The Department for Environment, Food and Rural Affairs started a programme to do just that, and we can just about envisage that it could be turned into a meaningful policy in the timeframe that is available. That is the point, really—we will run out of time to do that properly unless it starts in Scotland, too.

Rachael Hamilton (Ettrick, Roxburgh and Berwickshire) (Con): I am curious about why there is insufficient data, because farmers have been soil testing for years. I suppose that the problem is that data gathering has not been mandatory. I used to be an agronomist and I know that soil is a fundamental natural asset that is potentially the basis for decisions about world food production and food security, so I find it absolutely astonishing that there is insufficient data. I do not know whether I have touched on why that is the case. Do you have any comments on that?

Kathryn Brown: We agree about the fundamental importance of soil. Soil and water are obviously the two key assets. If people are doing agriculture in a changed climate in future, it will have to be underpinned by good soil quality and good water availability and quality. Even if we change what we grow or change from agriculture to forestry, we will have to have good soil and water quality.

We are surprised that there is not a national soil survey. In England, the most recent national survey was done in 2007. I have not seen evidence of a national soil survey in Scotland. In SCCAP2, there are actions to improve the research, including actions on what we are measuring in relation to soil health from a climate change point of view. Part of that is about carbon, both in relation to the mitigation benefits and as a proxy indicator for overall soil health. There are also the issues of the potential for soil erosion and the amount of soil that we have left.

To be honest, we are not sure why it has been such a problem, but it is a UK-wide problem and not just a Scottish one.

Chris Stark: I will briefly run through the issues that have arisen from our high-level assessment of the second SCCAP, which is all that we have been able to do. As far as we can see, it does not include a high-level commitment to addressing soil health. It mentions the farming for a better climate programme, which is good, but we do not see the development of a detailed policy programme, such as the ELMS programme in England, to go alongside that. Soil risk maps will be available, which is good, and there is a commitment to more research on soil, but no timescales are attached to those things. It is a half-baked, half-finished programme.

This is an area where Scotland can make huge progress. The optimistic take is that, as the bar is pretty low, it could be raised quite quickly. However, as Rachael Hamilton said, it is a strange state of affairs, especially given the academic excellence in agriculture in Scotland.

The Convener: I want us to move on to talk about buildings and infrastructure. I said that I would—[*Interruption*.] Before we do that, Claudia Beamish wants to come in.

Claudia Beamish (South Scotland) (Lab): Thank you, convener. The panel have already covered a lot of this, but there are some areas of the natural environment where the Committee on Climate Change highlights that "Mixed progress" has been made. They are terrestrial species and habitats; forestry; and marine and coastal ecosystems, all of which are fundamental.

Baroness Brown, you mentioned peatlands. Do you have any comments to make about the fact that some peat extraction is still going on in Scotland? That seems to be in conflict with the positive action that is being taken on peatlands.

Baroness Brown: We are very keen for peat extraction to stop and for the use of peat in compost to be banned, particularly in the compost that you and I can buy in the garden centre. It is appalling that that can contain peat. I recognise that commercial growers need to have a phase-out plan and to understand what they can use to replace peat, but there is absolutely no excuse for the fact that, these days, it is hard to discover whether the bag of compost in the garden centre has peat in it. None of us needs to use peat in our garden or on our pot plants. I absolutely agree that we should be phasing out its use. Some communities' livelihoods are dependent on such things, and they need plans. As with all such things, we need a just transition in adaptation as well as mitigation.

Claudia Beamish: We have touched on forest cover. I was interested to hear your comments about beech woods, Baroness Brown. Where would they go? I am puzzled about that. We talk about species moving north, and in response to questions from my colleague Fin Carson, you said that some things will move and that we need to consider whether they are harmful. However, in the context of the food chain and the ecosystems that you have highlighted, it seems to me that we lose our robust native beech woodlands at our peril. Will you say a bit more about that?

Baroness Brown: On Wednesday, I will talk to the National Trust down in England, and one of the iconic English landscapes is beech woods. The drought that is being experienced in parts of England is such that some of those woods will not be sustainable. That is the context in which I made that remark. I am sorry—it was not meant to be a comment on the situation in Scotland. Perhaps Kathryn Brown has an equivalent Scottish example.

Kathryn Brown: We know that some of the northern forests, which contain very cold-tolerant species, are under threat. Given what is predicted in some of the higher climate change scenarios, some of the fantastic ancient forests in the north of Scotland will probably go and be replaced by something else. Proper analysis needs to be done to work that through and find out the chances of that happening and whether pockets of those forests might remain. That is what we are talking about when we say that conservation needs to shift and be more flexible. In some cases nothing can be done and species will be lost because their climate space, as it is called, is running out.

Beech is an interesting example from a climate change point of view because it is quite a drought-prone species. Beech trees do not do well in dry conditions, whereas some of the other native English species are a bit more robust when it comes to drought. Beech woodlands and bluebell woodlands are examples of the things that we are particularly concerned about given what the projections are telling us.

10:15

Claudia Beamish: You will know that there was a debate in the Parliament last week on 100 years of the Forestry Commission, in which we celebrated our forests and woodlands, including our community woodlands. There is a very positive view in Scotland on continuing to preserve and enhance our native ancient pine forests—I just put that on the record.

We have talked about freshwater rivers and lochs, but can we focus our minds on estuaries, the coastal environment and marine ecosystems? I understand that the ecological status of estuaries is not showing signs of improvement, and everyone will know about the decline in seabirds. I will not quote the figures on that because of the time, but they give cause for concern. To what degree does the ecological status of estuaries rely on the health of freshwater rivers and lochs? Do you have any broader comments on estuaries and the marine environment?

Kathryn Brown: In that area, we have lumped together a few things that are quite different, as you point out. We put the marine environment in with estuaries and coastal waters. As you say, there is a good amount of protection on the marine side. Many marine protected areas have come on in the past few years, and that is looking quite good, but we are seeing big declines in some seabird populations—particularly those that rely on food such as sand eels. We are starting to see those populations decline, which is probably one of the impacts of climate change. Again, it is quite tricky to see what we can do about that apart from getting the habitats into good condition.

We have not done a lot of work to look at the causes of the poorer condition of estuaries. As you suggest, it might be to do with some of the upstream effects. Estuaries are complex ecosystems, as I am sure you are well aware, and when there are upstream and downstream effects, it can be tricky to preserve what we have. The point that we have made about flexibility is key to the condition of estuaries. It partly depends on how the condition is measured. Sometimes, it is measured according to the presence or absence of a particular species. If such species are moving because of climate change, we might need to change the condition metrics that we use. However, we would need to do more analysis to be able to give you a full answer.

Claudia Beamish: Thank you. That is helpful.

The Convener: I apologise for getting ahead of myself earlier. We will now move on to buildings and infrastructure networks.

Two things have struck me. First, you said that it is difficult to assess flooding adaptation because it is difficult to collate the existing information on how flooding has been taken into account when things have been planned and built. What is the difficulty with that? Secondly, given that people go through processes to get planning permission from local authorities and that large infrastructure projects are built more centrally, the data must exist. What is not being done but should be done in order to build the issue of flooding into that and enable us to assess whether that has been done?

Kathryn Brown: I will say a few words on data collection. Flooding is a huge issue, particularly in Scotland, and many factors are involved. As I mentioned, the national flood risk assessment now gives us much better data on the number of buildings that are located in risk areas. The gaps are to do with development on fluvial and coastal flood plains.

The issue falls under the remit of the Scottish Environment Protection Agency, and we have had lots of discussions with it about the data gaps. Part of the problem is that getting the numbers requires local authority resourcing and data collection and the collation of that nationally, which can be an expensive task. It is not that it is not measurable; it is more a cost and resourcing issue for local authorities. The conversations that we have had with SEPA suggest that it feels that it is not resourced to bring all that data together. However, I cannot tell you whether that is the full reason.

The Convener: We have talked about a culture change. In relation to factoring flooding into all these decisions, is the potential impact of climate change on flooding foremost in the minds of the people who are planning developments? Do you think that they are looking to the future?

Baroness Brown: Sometimes, people have conflicting priorities. I apologise for quoting an example from England, but Homes England has a priority of getting hundreds of thousands of new homes into the south-east of England. The challenge is that many of the areas where those homes could be built are flood plains. Also, they need to be affordable homes, so the challenge is then one of explaining that they must not be on the gas grid and that they need to be prepared for significantly hotter summer temperatures, with extra insulation, triple-glazed windows and proper ventilation systems to avoid damp and discomfort.

Those things cannot be done for free, and it is much cheaper to do them when new homes are being built. However, that adds to the cost and to the challenge in relation to the building skills that are needed to make sure that those homes are built to the high standards that might be specified, and more houses will need to be tested when they are built to check that they are meeting those higher standards.

There is a real and urgent need to build new houses, to meet targets on the number of new houses that are being built and to get the building industry to respond by building houses fast enough and to a high enough quality. There is therefore a temptation to put them in places where, in 50 to 100 years, we will really regret having developed communities, given that we could be facing a 1m sea-level rise. Those are the tensions that people are faced, with so we need people to be thinking that adaptation is really, truly important and must be a significant part of that decision making.

The Convener: Committee members will all have examples of constituents who have been flooded and have been told, "That was a one-in-200-year event; it's not going to happen again while you're here." However, the damage is already done—there is psychological damage as well—and the onus is being put on homeowners to be ready for flooding as opposed to there being any kind of mitigation.

Baroness Brown: In 20 years, it will not be a one-in-200-year event; it will be a much more common event.

The Convener: Exactly.

Baroness Brown: Of course, we always have the probability that we are seeing the tail of the distribution—we cannot ignore that either.

Chris Stark: It is true of every area. I do not think that, in any sense, the fundamental and inevitable impacts of climate change are really being factored in. There is a temptation and a tendency—you see it in the SCCAP as well as in many of the Government's approaches to these issues—to jump to acute care in relation to some of these things. However, some of this is utterly fundamental. We need to see a real change in how we develop policy generally, right across the piece. That is true in the commercial world as well. Flooding is probably the most obvious case where that needs to be done, yet we look to SEPA to do a new flood plan. That will not solve in any real sense the underlying issues with the inevitable flooding that comes with climate change.

I do not blame the Scottish Government any more than I blame any other Government around the world. As we lift the bonnet on this, we understand that more and more of these things are fundamental, and it is difficult to grasp that. Part of what we are here to do is to raise, in a non-alarmist way, the genuine risk that comes with climate change if we do not address it properly.

The Convener: We need to factor it in to all the decisions that we are making.

Chris Stark: That is right.

The Convener: We should probably throw out expressions such as, "This is a one-in-200-year event," because things are changing too fast.

Baroness Brown: We would very much like to see all Government departments and all businesses thinking about the possible implications of being on a 1.5°C to 2°C trajectory, because we absolutely have to be looking at the risks that are associated with that. Even with a 1.5°C trajectory, the climate will go on changing beyond the end of the century. People should also be looking at what would happen under a 3.5°C to 4°C trajectory, because that is still a significant probability.

For every decision that could be affected by a climate change impact, which could cover almost anything, those two assessments ought to have been done. People need to have faced up to what the weather and the world could look like and to have asked whether what they are doing is robust against that backdrop. That is the kind of logical risk assessment that everybody should be doing, but not everybody is looking at the 2°C trajectory, let alone thinking about the 4°C one.

Finlay Carson: Does the new document that we are looking at have the necessary teeth? Is it fit for purpose? It might include policies, but is it fit for purpose from the point of view of delivering new laws, whether on planning or the protection of biodiversity? Will it enable those to be delivered in a timely way, such that we can address the issue?

Baroness Brown: I think that we would give the SCCAP a tick for making good progress and taking significant steps in the right direction in the area of health and social care, but I would say that there are several other areas where it really does not have the teeth that are needed.

Chris Stark: It is a much more elegant—if I can use that word—programme. It is coherent, it makes sense and it is well laid out, but it still looks like a mapping exercise. I say that as someone who has had experience of doing mapping exercises, which are really hard to do. It is a good place to have begun, at least, but the jury is out on whether we can say, in truth, that it will drive new policy, new ambition and new activity.

I am happy that the framework has been established and that it links with the national outcomes and the United Nations sustainable development goals—that is definite progress. However, it still looks as though policies have been slotted into a framework, rather than that process being reversed. In future, I would like to see the framework being used in anger.

The Convener: We have just talked about flooding resilience—or, rather, adaptation, so that we avoid the situation in which people have to be taken out of their homes at 3 in the morning by

boat, which I have seen happening. Is there anything in the Scottish Government's adaptation programme that gives you any comfort that that is being addressed?

Chris Stark: There are certainly some steps forward to map. We look forward to the production by SEPA of the plan on flooding that I mentioned. That will probably be the point at which we can make a better assessment. At this point, it is difficult for us to say clearly whether the programme addresses the issue.

Baroness Brown: We are expecting a code of practice on the property-level flood resilience measures, which is due about now. We have not seen that yet, have we?

Kathryn Brown: No.

Baroness Brown: There are some things coming. When those come, it will be easier to assess whether the issue is starting to be addressed.

There is no mention of shoreline management plans in the second SCCAP, even though only 10 per cent of the Scottish coast is covered by them and 19 per cent of the Scottish coast is deemed to be erodible; parts of the Scottish coast could be eroding quite quickly. On top of that are the issues of how much of the Scottish coast is inhabited and how much of it has critical wildlife around it. All of that needs to be mapped together to enable us to tell whether there is a gap there or whether Scotland is reasonably well covered. We do not have the evidence on that.

Kathryn Brown: Flooding has a very visual impact. When it happens, everybody knows and it is easy to see the impacts on people and the aftermath, which we can measure. However, there are other risks to people and buildings that we are equally concerned about, such the risk of overheating, which is a very hidden risk. At the moment, the summer set temperature for heatwaves in Scotland is about 25°, but some of the work that Climate Ready Clyde has done suggests that that could go up to 35° or even 40° by 2070 under some of the scenarios.

The committee might want to discuss overheating separately, but I wanted to raise the fact that we see flooding and overheating as equal risks.

The Convener: One of my colleagues might pick up that point. We have half an hour left with this panel, so I ask members to keep their questions succinct.

10:30

Stewart Stevenson: I want to ask about digital infrastructure resilience, which is listed as an area of high concern. Given that paragraph C10 in part II of schedule 5 to the Scotland Act 1998 specifically reserves telecommunications and wireless telegraphy and internet services to the Westminster Government, rather than those being devolved to the Scottish Government, what role is there for the Scottish Government in telecoms resilience? More to the point, given that it matters to us but is a reserved matter, what is the Westminster Government doing to promote resilience in Scotland?

Baroness Brown: That is an area that we are concerned about nationally. To some extent, better connectivity will deliver better resilience and increased reconfigurability of the infrastructure in Scotland, but our big concern nationally is infrastructure interdependencies. Digital is a particularly important part of that because when there is an emergency we all rely heavily on being able to communicate. There have been several instances where the digital infrastructure has failed because of an interdependency that people were not aware of, such as a dependency on a particular electricity substation where the fact that it affected the digital network was not even clear. We are pushing the Government in Westminster very strongly on that.

We are very disappointed that the Westminster Government has not chosen to make the next round of adaptation reporting mandatory. We would like it to be mandatory for all critical infrastructure providers to report on their progress and risk reviewing against their planning for adaptation and consideration of interdependencies.

We hit a bit of a wall with the Cabinet Office because of some of our national security issues around some interdependencies—things that, for good reasons, are not in the public domain. However, we still have a concern around this area of infrastructure interdependencies. It is extremely complex and we want greater assurance from the UK Government that it is being thoroughly reviewed. We would like to see adaptation reporting being made—as is allowed for under the Climate Change Act 2008—a mandatory requirement for all the critical industries so that we can see what they are doing about those issues and the information is made public.

Chris Stark: Although it is true to say that powers over digital communications are reserved and that Westminster needs to have a policy in place and plans to manage the digital infrastructure, it would run counter to the devolved policy of expanding connectivity in Scotland if the new infrastructure were not resilient. Although we can take a narrow outlook in that discussion and say that it is a reserved matter, it is absolutely the case that there is a devolved competence and an

issue that the Scottish Government should care about it.

Stewart Stevenson: However, the devolved competence is in respect of economic development, rather than communication.

Chris Stark: I completely agree, but that means that the Scottish Government has a stake in ensuring that there is that national strategy.

Stewart Stevenson: Yes, it has a stake.

Chris Stark: However, I am not aware that there is an active campaign by the Scottish Government to ensure that the digital infrastructure that is installed is resilient. That would be a good example of where the Scottish Government's devolved competence in respect of economic development played through into a clear position on what it demands from Westminster.

Stewart Stevenson: Does the Scottish Government not play into that through the joint working on the critical national infrastructure definitions?

Chris Stark: I hope so, but I do not know.

Stewart Stevenson: I can speak with some degree of certainty. In my previous life, I used to be visited annually by GCHQ, to see whether my computer centre—

The Convener: I am going to move on so that we can talk about other forms of infrastructure, such as energy supply.

Angus MacDonald (Falkirk East) (SNP): My question is on the energy networks and the resilience of their infrastructure. I also hope to discuss ports, airports, ferry services and infrastructure dependency.

Starting with electricity supply disruption due to severe weather—other than flooding—who should be responsible for collecting, collating and analysing data in relation to such disruption?

Baroness Brown: I will hand that one to Chris Stark.

Chris Stark: The straightforward answer is that I do not know. However, I was once responsible for those issues in the Scottish Government. A very good service is provided by the utilities in Scotland—by SSE and Scottish Power. When it comes to the energy networks, I would look to them to provide that data.

Angus MacDonald: So you would be content that they have the capacity to do that.

Chris Stark: They certainly have a very active programme of managing extreme weather, and I think that the service that they provide now is absolutely excellent, although that has come from a history of that not being the case. I am afraid that I do not know what data is collected from the utilities, but I would look to the asset owners themselves.

Angus MacDonald: Would you say that the Scottish Government's electricity and gas networks vision statement adequately addresses resilience and adaptation concerns in relation to energy supply?

Chris Stark: I do not think that it addresses them. I would be happy to consider that further after the meeting but, from my reading of the statement, I do not recall such a section being in the networks plan that has been put together.

Angus MacDonald: On ports, airports and ferry services, we know that work is continuing on a national transport strategy that is to be completed this session. What steps are necessary to manage climate risk in relation to port, airport and ferry infrastructure?

Chris Stark: The area is pretty straightforward. The new national transport strategy just needs to acknowledge the risks and put a plan around them. With that infrastructure class, we can put together good plans. To echo something that Baroness Brown said, I would say that those plans should look well into the future and should be capable of managing temperature increases and the changes in weather that come with those increases—going much beyond 2°C, up to 3 or 4°C. In the lifetime of the assets that we are discussing—an airport, for instance—that is absolutely something that should be in the national transport strategy.

I think that the plan for the national transport strategy is for there to be a 20-year look ahead. Over those 20 years, there are pretty predictable changes in the climate, which we will need to accommodate.

Baroness Brown: A 20-year look ahead is great, but we are thinking of assets that have a longer lifetime than that. There should be some recognition of that and a further look ahead to ensure that the things that are done over the 20 years can be enhanced to deal with climate resilience over a 40-year or 50-year period, rather than going down dead ends with work that will need to be redone or starting again when we consider the weather and climatic conditions beyond 20 years.

We should ensure that steps are being taken on a pathway. We might not need 50-year resilience on day 1, but we need to ensure that the steps that are taken are part of the pathway to resilience that reflects the life of the asset.

Angus MacDonald: Work is on-going to that effect.

Would you say that the SCCAP adequately addresses the CCC's concerns in relation to areas of "high concern"?

Baroness Brown: Digital infrastructure is clearly an area of high concern, but it is a high concern across the country, for reasons that we have talked about. I am trying to remember the other specific ones. Certainly in the area of infrastructure, digital infrastructure was the only area of high concern.

Kathryn Brown: Yes. The other one that I would flag up is infrastructure interdependencies, mainly because there is a gap. Our quick reading of SCCAP2 to date suggests that there is not really anything substantive in SCCAP2 at the moment that examines the interdependencies issue. It is a very difficult one to get into, to model and to come up with actions for.

We are looking at that as part of the third UK climate change risk assessment. From 2021 there will be updated evidence for the Scottish Government to use, but we would obviously like to have a few more discussions on how to get into that area, as a follow-through from SCCAP2.

Claudia Beamish: I want to focus our minds on society and adaptation, an area on which there has been mixed progress, as you know. What are the key barriers to improving performance in relation to societal adaptation? The acid question is who will pay for that; have you been exploring that in your policy work? Do you have a view? We will have somebody from Scottish Water in front of us next; is it the consumer, the taxpayer or businesses—which obviously have a part to play—who should pay for such adaptation? How does all that get put together?

Baroness Brown: It is not for us to say who should pay; those are political decisions. It is for us to point out the things that need to be done and the metrics that can be measured to see whether we are progressing and making things happen. The question of who pays is a political decision.

Claudia Beamish: Okay, fair enough. Can I ask part of the question again? What are the main barriers to moving forward?

Baroness Brown: Quite often, the question of who pays is one of the main barriers to moving forward. Conventional cost-benefit analyses often do not work in areas in relation to which we are planning for a 20 or 50-year horizon, and actions that we take now affect a problem that is going to be with us in earnest, perhaps in 50 years' time.

Kathryn Brown mentioned a study that shows that temperatures in the centre of Glasgow could potentially reach 40°C. Given that things that you do in the centre of a historic city now could well still be around in 2070, you need to be thinking over the very long term, which is not a very natural timescale for an elected Government's thinking, because we might not see for an awfully long time that an investment was a brilliant thing to do. Lots of issues around cost are certainly a barrier, because this is quite often about investing now for long-term benefits.

Claudia Beamish: You used the phrase "just transition", which is in the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, in the context of mitigation. Do any members of the panel have comments on the societal changes that are needed? How can the people who are the most vulnerable to climate change in Scotland be identified and supported? How can they become engaged and empowered to be able to adapt?

Chris Stark: It is tempting in these moments to hand out lots of criticism, but one of the areas on which Scotland and the Scottish Government are very good is the raising of public understanding of what is happening with climate change. That is one of the areas on which we have noted positive progress. We are far from done on that, but it is really important that it happens.

However, I think that that is not enough. To answer your question about vulnerability: when it comes to climate change adaptation, one of the issues is how hidden some of the impacts are. In the context of health and social care services, for example, there is the issue of overheating in nursing homes. I do not think that just telling people what is coming is enough to fix that issue; we need something much more fundamental.

That is where the Government and the state come in: Government's role is to understand those risks and not just to improve public understanding but to make proper provision, through decent policy, for what we know is coming. That is where we will find the answer to the question on what we do with the most vulnerable. The Government needs to protect those people; it is not just a question of raising public awareness. There is lots to say on that, but I think that, in general, the Scottish Government has appropriately raised the profile of climate risks, internally. Now we need to see that play out and manifest itself in better policy making.

Claudia Beamish: Thank you.

Mark Ruskell: I want to ask about the key recommendations that the adaptation sub-committee has made. You have a number of ranked recommendations: the first is that we

"improve the measurement of vulnerability to climate change",

which seems to wrap in a lot of what we have discussed around infrastructure and soils. Will you

explain your thinking around the ranking of your recommendations?

10:45

Baroness Brown: They were ranked in order of importance. As you said, to some extent the first recommendation was a bit of a catch-all that picked up on some of the later ones. Its aim is to ensure that we have metrics and measures and are collecting data in key areas. The first element of that is about overheating risks in buildings and monitoring internal temperatures in hospitals and care homes. We think that Scotland has taken some good steps in the right direction on that one.

The next recommendation was on soil erosion. As we have discussed, we think that that should not be difficult to implement, but it is a critical one and Scotland has the possibility of bringing it in as part of the environmental land management system that will replace the CAP.

We have talked about the challenges to infrastructure networks from severe weather. However, we have not covered what business is doing to prepare for those. We are pleased that you still have climate-ready business advice, which is very good. We would very much like to see all businesses focusing on preparations for rises of both 2° and 4°. Clearly, preparing for 4° might not be so important to very small businesses, but it would be good for larger ones, and those that are important in their communities, to be seen to be doing such long-term planning. In our quick look at SCCAP2, we did not see a response on what research is being done on whether Scottish businesses are actually preparing for climate change.

Kathryn Brown: I will add a comment on the ranking. We have some overarching recommendations, which are about what we want to see in SCCAP2, and then recommendation 1 is about the monitoring and data, as Baroness Brown has just explained. The rest of the recommendations are not necessarily ranked in any order of priority.

The sector-specific recommendations that we have made on heat and cold, SUDs, dothistroma needle blight and so on are all on areas that we picked out because they are of great concern. However, we are not necessarily suggesting that recommendation 6 is of greater importance than recommendation 9, for example.

Baroness Brown: I thank Kathryn Brown for reminding me of that point.

Mark Ruskell: So there is a bit of a stepped process here. If we were to improve the baseline on vulnerability, that might drive suggestions for further action, the extent of which would depend on the data that was available.

Chris Stark: That is right.

Mark Ruskell: How do you see that process evolving in relation to the plan, updates to it and the emerging picture? Are we being sufficiently fleet of foot? Will the plan be responsive enough to the changing data that might have come to us by 12 months, 18 months or two years from now?

Baroness Brown: We would say that Scotland has a good framework. We think that the framework and the outcome focus as set out in SCCAP2 are positive and represent good practice, which we like very much. We could use that in our work with DEFRA, highlighting that it is a great framework for understanding what the key policies are. However, we have not yet seen some of the policies listed in the framework properly incorporating adaptation.

Although the framework looks very good and could be adaptable, it is clear that we also need to be sensitive to new science. One of the reasons for our doing the climate change risk assessment for the UK every five years is that it is a reasonable timescale in which to pick up developments. Of course, we all need to be responsive to new science in all areas of climate change: if science should change, our plans would need to change, too. We might have to recognise that the steps that we took previously represented our best judgment at the time. That is great, but as science changes so should our actions. Scotland has put together a framework that could be responsive. Of course, time will tell—but it looks good now.

The Convener: Is the CCC planning to publish a review of the Scottish climate change adaptation programme?

Chris Stark: If the Scottish Government were to ask for that, we would do so. Of course, we will return to some of the assessments in any case. The way in which the act works is such that we would first need to have a review publication request from the Government, but we would be pleased to act on that if it were to come to us.

The Convener: Do members have any other questions? Do panel members think that we have missed anything that they might want to point out to us before we wind up?

Chris Stark: I want to make a general point. As I said earlier, it is very pleasing to see SCCAP2 laid out like this. On even a cursory look, it is clear that there has been a big step forward between the last programme and this one. I very much hope that, now that the framework has been established, we will stick with SCCAP2 and begin a process of progressively improving our

understanding of the metrics and the data. However, it is crucial that the programme becomes not just a repository for things that we are already doing but a way of catalysing proper action on such issues. When it comes to climate change, nothing is more serious than the matters that we have just been talking about.

The Convener: No—and everything that we have talked about today will have an impact on every single citizen of Scotland.

Baroness Brown: Our first look at SCCAP suggests that although we are seeing positive progress, there is still a lot to do. That first look was more positive than our review of the second national adaption programme in England. It is useful to have that comparison to encourage our colleagues in England to higher aspirations.

The Convener: I guess that all Governments and all countries are running to stand still on the massive issue of climate change, but it is in our faces more and more.

Baroness Brown: Absolutely. I would like to mention that our Scottish colleague Cara Labuschagne supported us in pulling together our second review of the first SCCAP. She is currently enjoying her maternity leave, but I would like to recognise publicly the very good job that she did for us.

The Convener: I thank our witnesses very much for their time. I now suspend the meeting briefly.

10:51

Meeting suspended.

10:58

On resuming—

Scottish Water (Investment Priorities)

The Convener: The next item on our agenda is to take evidence from two panels on Scottish Water's future investment priorities.

I am delighted to welcome the witnesses on our first panel, who are Douglas Millican, chief executive, and Professor Simon Parsons, strategic customer services planning director, both of Scottish Water; Jo Dow, chief executive of Business Stream; and David Satti, assistant director, network regulation, with the Water Industry Commission for Scotland. Good morning to you all.

I begin by asking our witnesses to give the committee an update on where they are in the investment planning cycle.

Douglas Millican (Scottish Water): Members will be familiar with the fact that Scottish Water operates in multiyear regulatory periods. We are currently moving towards the latter stage of the 2015-21 period, which sees us very much in delivery mode on the investment commitments that we made some years ago for that six-year period. We are also right in the middle of a planning exercise for the period that will begin in April 2021, in which we have been engaged for the past two or three years.

The Convener: Has any of that timetable slipped or are you on track?

Douglas Millican: The overall timetable is very much on track, with a view to final decisions being made in the latter part of 2020.

11:00

The Convener: How long term are you looking for those investment plans? Are you factoring in changes for, say, 20 or 40 years? Are you looking that far ahead?

Douglas Millican: The approach that we will take in future will be quite different from the one that has been taken until now, in which our planning has focused on the needs for the coming six years—in the current case, that is the 2015-21 period. However, in the planning that we are doing for the period starting from April 2021, we will try to look towards the middle of the century and at all the challenges, pressures and opportunities that we can see for that time horizon. We will then take that into account in determining what to do over the next few years.

The Convener: We have just heard from the Committee on Climate Change about the potential impact of climate change across all sectors, businesses and organisations. Is that very much on your mind?

Douglas Millican: Absolutely. Three major themes sit behind our investment planning, one of which is that we have a lot of assets that will need to be replaced at some point, so replacing ageing assets is a big driver. The other two big drivers are both climate change related, and one of them is adaptation. We are already seeing the impact of the changing climate on the delivery of our services. Clearly, that will only continue and it will potentially accelerate. The other driver is our commitment on the mitigation agenda and getting net zero emissions by 2040.

The Convener: We have seen that your current capacity for dealing with, for example, big weather events, is probably insufficient. How are you building that aspect into your investment plans?

Douglas Millican: The approach goes across our whole system, from looking at issues of the availability of water and how water quality might change in some of our catchments, to whether our water treatment plants are adequate for dealing with the variable quality of the water coming in for treatment. There are also lots of pressures on the waste water side, with regard to whether the sewer systems can deal adequately with the additional amount of surface water as well as foul sewage, and the impact on our waste water treatment plants from changing influent. We are seeing impacts across our system and we are already adapting to deal with those changes. However, it is clear that a lot of that will require more investment in future.

Mark Ruskell: I have a question about the interrelated drivers for investment and will use an example with regard to the bathing water quality directive. There is poor bathing water quality around Kinghorn harbour, and investment will be required to sort the storm water sewage and domestic sewage to ensure that there is no bacterial contamination. However, because there are no regulations in relation to rivers, we do not see investment to ensure that sewage does not get into rivers. As a result, there are various pollution problems in rivers across Scotland, including in the River Leven, which is not that far from Kinghorn.

How much do the EU directives and regulations drive investment decisions? I am sure that those who live near polluted beaches and rivers would prefer both types of water to be sorted so that dirty water did not come into the river or the beach. Clearly, though, there is an investment decision to be made there.

Douglas Millican: I will give you an overview and then let Professor Simon Parsons in to pick up on the specifics. One of the positive changes that we have made over time, in conjunction with SEPA, is to look holistically at all the pressures on water bodies and assess what is the optimal way of dealing with those, either by Scottish Water or other parties. The challenge for the future will be about not just what we need to do for the aquatic environment but what we need to do from a holistic environmental angle, and doing all that with a view to the notion of one-planet prosperity.

I invite Simon Parsons to speak specifically about the water issue.

Professor Simon Parsons (Scottish Water): Mr Ruskell is obviously familiar with the work that we have been doing on bathing water around Kinghorn, for example. In relation to the rivers that we discharge into across Scotland, we have very tightly agreed licences with SEPA. In essence, we operate to a recipe of contaminants that we need to remove from the waste waters. That is agreed, monitored and reported regularly to SEPA. We also look at what is changing in those rivers and whether the standards that we operate to will change.

Picking up on your point about discharges, we might have too much surface water going into our sewers, for example. The sewers are actually designed to overflow into rivers—that is the nature of how they are designed to operate—and we are working with SEPA to prioritise, across Scotland, where we need to put in the greatest investment, as part of a long-term investment programme, to deal with those overflows, as well as our work on individual waste water treatments.

Mark Ruskell: Is there parity in terms of the drivers for investment decisions? Those who live next to the River Leven will see wet wipes getting into the river, and the same is true of the River Almond and various other rivers. It seems odd that action is being taken a couple of miles down the road to deal with bathing water quality, which is right and proper, but that there is not the same level of action when it comes to rivers.

Professor Parsons: We work with SEPA to agree which of those discharges we most need to deal with. As you know, SEPA is quite firm with us on enforcement actions if it believes that we are not operating equitably. Part of the solution to the problem of wipes in the Almond, for example, will be to work better with some of the non-governmental organisations around the Almond to educate people to not put wet wipes into the sewers. We are working with SEPA and other organisations around the Leven to help regenerate the river and to ensure that the water quality and the amenity value are improved.

The Convener: Claudia, do you want to come in on that issue?

Claudia Beamish: No, not on that one.

The Convener: Finlay Carson has questions about Scottish Water's engagement.

Finlay Carson: I want to ask about your aspiration to move towards engagement methods that will further empower communities and customers. I put that into the context of Scottish Water's absolutely dreadful reputation in south-west Scotland currently, with disastrous public engagement actions underlying it. That includes issues with the new treatment works at Shawhead, Heathhall and Troqueer; real issues with flooding; and Scottish Water's response to the community at Kirkcudbright—the list goes on. How are you currently engaging with customers and stakeholders as part of the process, and how can you improve on your current reputation and help build your social licence to deliver the service?

Douglas Millican: First, we take any failings in our customer service very seriously. I am certainly aware of some of the specific instances that you mentioned. If there are any areas where you feel that we are not taking action, please let me know and I will make sure that we follow that up. For example, on the Kirkcudbright incident that you mentioned, we are dealing with that from a long-term and a short-term angle.

To broaden it out, we as an organisation absolutely seek to put our customers and communities at the heart of what we do. I would not claim for a moment that we get everything right, but we have made significant strides in recent years in increasing the level of customer satisfaction with our services across Scotland. At the heart of our approach is understanding where we have let customers down, making sure that we resolve those issues, learning from that and building that learning into our processes.

More broadly, we have engaged extensively with customers and communities on future investment. We have spoken to about 25,000 people to inform our plans in a whole bunch of different ways. That has given us some very rich insights. We are working ever more effectively with communities when it comes to investment planning. I think that we are getting pretty good at working with communities on how we deliver and at taking community preferences into account. For the future, I want to go further and to increasingly involve communities, not just on how we deliver but on what we deliver.

Finlay Carson: I sometimes feel that, when it comes to looking after customers whose water supply has been disrupted, Scottish Water always has the excuse that we must recognise that it is using taxpayers' money, whereas we often find that commercial companies such as Openreach go the extra mile in such situations. That issue was raised when you were at the committee last year. How does your current planning process seek to balance your ambitions for further investment with the economic hardship being experienced by business and domestic customers?

Douglas Millican: We work extensively through licensed providers in particular in dealing with business customers. We always seek to fulfil the expectations on us. We learn from our experience and from other organisations. If we can learn from good things that other companies are doing, we will take that on board.

Angus MacDonald: I have a couple of questions for David Satti. What challenges are involved in regulating in a monopoly environment? How do you avoid the relationship becoming too close?

David Satti (Water Industry Commission for Scotland): One of the main challenges that we were mindful of in opening and conducting our strategic review was the question of how we think in a much longer-term way. That has been alluded to in some of the initial questions. How do we think about the challenges and opportunities over a much longer period so that we can better put the next regulatory period in context?

At the start of the price review, WICS sought to use the principles of ethical-based regulation, which place an onus on Scottish Water to build trust and confidence with its customers and communities and with stakeholders. That level of engagement has resulted in open, frank and challenging discussions about the challenges and opportunities for the industry. It has also created a level of collaboration among all stakeholders. Recently, at the invitation of the Cabinet Secretary for Environment, Climate Change and Land Reform, the industry worked together to develop a transformational long-term vision for the sector.

We ensure that the relationship is not cosy—as Angus MacDonald alluded to—by ensuring that everyone is open and honest in their disagreements as well as their agreements.

Angus MacDonald: Do you have many disagreements?

David Satti: There are many challenges that we impose on Scottish Water on an on-going basis, and there is a lot of dialogue between each of the regulators about how we best create value for Scotland as a whole.

Angus MacDonald: You talked about the need to think about the longer term. You have not mentioned climate change. Where does that feature in your priorities for Scottish Water, in

particular in the strategic review of charges for 2021-27?

David Satti: A lot of our work to date has been about understanding the investment requirements for the industry. We have been looking at Scottish Water's asset base and, in the light of the net zero emissions target and the announcement of a climate emergency, trying to understand the impact that that would have on investment.

Angus MacDonald: Finally, given that WICS was formed in 2005, would you say that it is still fit for purpose?

David Satti: I would say not only that it is very much fit for purpose but that, given our hydro nation activities, many regulators throughout the world are knocking on our door to understand how they can do in their countries what we are doing in Scotland.

11:15

Finlay Carson: Mr Satti, what weight do you attach to the importance of protecting the natural environment, biodiversity and so on when you are considering the need for a community to have a new water treatment facility? How do you balance that need against considerations such as the additional cost to the public purse and the need to ensure, for example, that national scenic areas are protected from the development of water infrastructure?

David Satti: I will elaborate on the commission's role. Ministers set objectives for the industry that cover service levels, compliance and the level of contribution to facilitating economic growth, and WICS determines the lowest overall reasonable cost of delivering those objectives. The trade-off that you mentioned would be covered in the ministerial objectives.

Mark Ruskell: Back in 2005, there was a lot of debate about what WICS's role should be and, in effect, what it should count. You are an economic regulator. Do you feel that the other aspects of sustainability are covered by other bodies such as SEPA and Scottish Natural Heritage? How do you look after the long-term public interest, which goes beyond the economic regulation of costs and investment?

David Satti: One of the challenges that we have put to Scottish Water as part of the strategic review is how to incorporate the six capitals when future projects are assessed, so that it is not just about looking at the financial position and going for the lowest overall cost. We want to ensure that better value is achieved that incorporates the areas that you mentioned. Work on that is very active at the moment.

Mark Ruskell: Does WICS have the expertise to do that or would you rely on SEPA to make a judgment about where the investment priority should be?

David Satti: We would hope that Scottish Water, when it appraises proposed new projects, would incorporate each of those variables into its appraisal. It is very much the role of WICS, SEPA, the Drinking Water Quality Regulator for Scotland and other regulators to assess whether Scottish Water is doing that appropriately.

Mark Ruskell: Does WICS have the right expertise on sustainable development to interpret its economic regulatory role through the lens of sustainable development objectives? Do you have environmental economists working for you? Do you have people who are looking at long-term investment in meeting the sustainable development priorities?

David Satti: Yes, I would say that we have the right expertise in house to ensure that Scottish Water appraises projects in the way that we would hope.

The Convener: We will move on to questions about capital investment.

Claudia Beamish: Before we move on to capital investment, I have some brief follow-up questions for David Satti.

I understand that you set the charges for water customers. Given the climate emergency and the challenging economic situation that people who are served by Scottish Water face, is it challenging to keep charges affordable? How do you go about assessing affordability?

David Satti: As I said, the role of the commission is to determine the lowest overall reasonable cost of delivering ministerial objectives. To do that, we determine the amount of revenue that is required in general terms for Scottish Water. The Customer Forum has researched and is understanding and analysing the preferences of customers in general terms with respect to investment relative to price. How the revenue is then apportioned to different segments of society, including people who are financially vulnerable, is a matter of Government policy, through its principles of charging.

Claudia Beamish: In your view, is that being pursued in a way that is appropriate for vulnerable customers? Citizens advice bureaux are working with you—or perhaps more with the Customer Forum for Water. We will also hear from a panel including the forum. Are there concerns about customer vulnerability?

David Satti: Citizens Advice Scotland is working with the Scottish Government as it develops its policy. The matter is always under

consideration when future prices are being determined.

Claudia Beamish: I have questions about capital investment for Scottish Water, but if David Satti feels that it is appropriate to comment, he is most welcome to do so.

We have already touched on the aspirations and determination to move towards net zero emissions in the climate emergency. I understand that Scottish Water has an assessment tool for delivery against mitigation and adaptation requirements. Is that tool working effectively? How will things move forward? Can you accurately know the costs and potential efficiencies that might come from developing ways to operate in the climate emergency?

Simon Parsons: First, I will give an update on the tool. Mark Williams spoke to the committee earlier in the year about it.

We look at our emissions in two ways. First, we look at operational emissions, which are relatively easy to understand and measure. There is also embodied carbon, which is much more difficult. Our tool has been built around best practice across the UK and was developed as part of the UK water industry research programme. It allows us to assess projects; at the moment, we use it for projects above £1 million. We look at the embodied carbon within the projects and at any other options that we choose. The idea is that, as we develop our understanding and our library of solutions, we will be able to identify the lowest-carbon solutions for projects. The tool is being used now on all projects above £1 million and has been in day-to-day action for six to nine months. We have already been capturing examples of where we have changed a material, for example from steel—

Claudia Beamish: Could you give us an example of that, please?

Professor Parsons: Yes—I will find some in my notes. One example is our scheme up at Loch Ness, where we are building a new water treatment works to supply the communities there and in which we changed the pipe material from steel to plastic. We can reduce the embodied carbon by about 90 per cent for that part of the project.

We also have a project down in Howden, where we are putting in a new water main. We are using an existing water main, so we can significantly reduce the amount of pipe material that we put in, which reduces the embodied carbon in the overall scheme.

Claudia Beamish: You are saying that you are moving from steel to plastic: I hope that you are considering opportunities to use Scottish companies that remanufacture using recycled plastic. Is the plastic recycled already?

Professor Parsons: I do not know exactly where the plastic material that we use comes from.

On the drinking water side, we are very closely regulated in terms of the materials that we can use within—

Claudia Beamish: I am sorry to interrupt. Would you be able to look into what is being used and where?

Professor Parsons: Of course.

One of the benefits of the assessment tool is that it generates really good discussion—for example, about how we could reduce levels of embodied CO_2 in our schemes and in their component parts. The real benefit of the tool lies in generating discussions with our supply chain and colleagues in Scottish Water about what we could do differently. As we get more experience and generate a library of good ideas and examples, that will help us to drive down the embodied carbon in all our schemes.

Claudia Beamish: Are you looking at natural flood control and filtration rather than hard engineering options? Also, can you work with local authorities on sustainable drainage systems? It would be useful if you could say something about those issues, which have been raised with me and others.

Professor Parsons: I heard your conversation with colleagues earlier about climate change. From rainfall predictions, it is clear that, because we have combined sewer systems, our ability to deal with the additional rainfall will be tested. We are looking at what blue-green infrastructure we can use and, in that regard, we have two strong partnerships. One is the Metropolitan Glasgow Strategic Drainage Partnership, which has been running for a number of years. There are some good examples of how blue-green infrastructure is working there—I will pick up on one in a moment.

Secondly, we have a newly formed drainage partnership here in Edinburgh, which comprises Scottish Water, East Lothian Council, Midlothian Council and the City of Edinburgh Council. We are looking at how we can plan for growth in the region such that we can deal with flooding with blue-green solutions rather than with conventional sewer systems with big underground pipes.

A good example is the smart canal that is being built in north Glasgow. It provides sustainable urban drainage system infrastructure for an area of north Glasgow of—from memory—about 3,500 houses. It involves good working between us, Scottish Canals and Glasgow City Council and is about using the canal as a final route for the water,

rather than it going into the Clyde. The scheme also provides biodiversity and green spaces—multiple benefits are associated with such schemes. It is an example that we will demonstrate and then develop in the future in partnership with local authorities, which is the right route.

Claudia Beamish: It would be helpful if you could send us some more detailed information on that. You will know that we visited an interesting scheme in Inverness involving removal of culverts. I will not go into detail on it now, but it was inspiring. It is particularly important for us to hear about how you can work in partnership with local authorities and SEPA to develop the protections and mitigation that we will need. Thank you.

Mark Ruskell: All industries are looking at how they can make transformative changes in the light of climate change. That might mean investing in something that does not at first appear to be economically efficient in order to get over the hump of innovation. How would the WICS see it if Scottish Water were to invest in technology that might raise costs to consumers in the short term, in order to bring about something that can then be mainstreamed in the long term?

Douglas Millican: Perhaps I can comment on that first, before David Satti comes in. There was a question earlier about whether our economic regulator is challenging. I assure you that it is very challenging, and one aspect of the challenge that it has thrown to us is how we understand the long-term cost of carbon. When we do our investment appraisals, they are not just about understanding the cost of carbon today. For investments that might last for 20 or 30 years, how do we find out the future cost of carbon to ensure that we evaluate the real cost of carbon in our economic appraisals? We do not have the answer to that yet, but we are grappling with it.

That is an example of the challenge that we get from our economic regulator to ensure that we are robust in our economic assessments, and that we take account of the important environmental factors.

David Satti: A key question for us is about how to create a regulatory framework that allows greater innovation and collaboration. One of the key components is the move away from a six-year list of projects and needs to a more dynamic and transparent process for prioritising projects.

11:30

On occasion, Scottish Water will want to pilot a project on the basis that it might not be initially successful but is the right thing to do. That has happened: the Dalmarnock and Daldowie projects are examples. We would like to build on that success and create a regulatory environment that would allow for much more dynamic ongoing scrutiny of projects to enable innovation.

Finlay Carson: There have been, and will continue to be, more severe weather incidents. They have highlighted issues with, for example, unadopted legacy drainage systems, particularly under high streets and so on. Those problems are not managed by Scottish Water, but can cause issues for the network that Scottish Water manages. There are also unadopted SUDS. Are there plans for capital investment to deal with unadopted floodwater networks or SUDS to ensure that there is sufficient resilience to deal with more frequent adverse weather conditions?

Douglas Millican: That is a huge issue on which we are engaged at the moment. We have a team of 50 or 60 people who have been working for some years on what we can do to adopt infrastructure. It sounds simple, but there are all sorts of challenges, including technical challenges. There are lots of legal challenges because we do not own the infrastructure. We therefore have to get ownership of it, or get sufficient ownership, to enable us to operate. However, I assure you that we have a big team focused on that infrastructure issue. We are working particularly actively with the development community, which includes work with current developers and work on challenging situations in which house builders have become insolvent.

The Convener: You have already made a commitment to offset some of your emissions by investment in peatland, catchments and, increasingly, woodland. How will that activity appear on your balance sheet? Will it appear in your balance sheet?

Douglas Millican: I do not know whether it will appear on our financial balance sheet, but we have committed to developing over the next year a clear route map for how we will achieve net zero emissions by 2040. We have lots of things in train and lots of ideas. It is basically about how we minimise carbon and other emissions that are associated with our operational and embodied activities—Simon Parsons spoke about that earlier—and how we maximise the positive contribution that we can make through, for example, peatland restoration or supporting renewables. We will seek to develop a suite of things as part of the route map.

On whether such things will appear on our balance sheet, investment in renewable energy will. Peatland restoration and the like have value, but I am not sure whether we would ascribe a financial value to those activities for our balance sheet.

The Convener: Where can the committee and regulators see evidence of your offsetting of emissions for us to scrutinise?

Douglas Millican: First, I point out that we want to minimise what we offset and maximise what we reduce. The extent to which we need to invest to offset will be very transparent because we will be, in effect, investing customers' money in that.

I will explain broadly, for the committee's benefit, the nature of the new investment planning and prioritisation framework that is being developed. It involves a new process that has been put in place to support investment in 2021 and beyond. The first element of that is for us to identify needs that should be investigated. We will do that in conjunction with all the regulators. That work should pick up potential conflicts—for example, between river quality and bathing quality.

Ultimately, what we identify goes to ministers for approval, who then agree the needs that we should investigate. Once we have ministerial approval, we will appraise how best to meet those needs and develop solutions that will be subject to scrutiny. All the solutions will be appraised and the appraisals will be reviewed by our economic regulator. They will all have pound signs attached to them—they will cost something to deliver, so they will be included in our record of what we have invested as part of our investment programme or through other activities.

The Convener: We will move on to questions about household behaviour change.

Stewart Stevenson: We are told that Dunkeld and Birnam is the first water-efficient community in Scotland. How did that happen and what role did Scottish Water play in that? How can we make it happen elsewhere?

Professor Parsons: We have a significant focus on water efficiency and trying to reduce per capita consumption of water by all our customers, every day. That is about ensuring that we have a sustainable supply of water now and in the future. For the last few years we have been working with the Energy Saving Trust on how to deliver water-efficiency advice and how to change customers' behaviour. We are thinking about how we will change customer behaviour in the long term. Part of that is about considering the link between water use and energy use, which would deliver a multiple benefit. We have been carrying out trials to implement physical changes, but we have also distributed leaflets and information.

As you mentioned, this summer we named Dunkeld and Birnam Scotland's first water efficient community. The people there reached out to us and asked for our support to achieve water efficiency, because they had set themselves some very positive sustainability goals. We worked with the community to put in water-saving measures and we shared information. On the back of that, the community has saved more than 1 million litres of water. We have just had a conversation about carbon—the committee might be interested to know that that is the equivalent of 3.5 tonnes of CO_2 that has been saved. That approach is now embedded in the community and we hope that it will be a long-term saving.

The question is how we get other communities across Scotland to build on that. We have done some work with Galashiels and other communities, but it will be a long journey to get water-efficient behaviour embedded in all our lives.

Stewart Stevenson: I am going to ask about the non-domestic sector in a moment, but I have a little comment on what has just been said. I have done a quick calculation and, if the community has saved 1 million litres of water, that is about 2.5 million tonnes of water—something like that—that Scottish Water is now not having to pay to move around. As well as a huge environmental benefit, it presumably represents a significant reduction in costs for Scottish Water, which is the biggest energy user in Scotland. How are you sharing that benefit with communities? If you are sharing that benefit, will that encourage other communities to follow Dunkeld and Birnam?

Douglas Millican: I will deal with the economic side. The whole regulatory framework is designed to drive up the service that we deliver for customers and to minimise the costs that we incur. The benefits of any financial savings that we make go back to customers, ultimately in the form of the charge level that they pay or additional investment that we are able to deliver. Although the benefit might not go directly back into Dunkeld and Birnam, the benefit of that is shared across the country, as is the benefit of any other saving that we make.

We were talking earlier about working in partnership, and working with our customers is something that we have been doing more successfully. It is a ripe area for the future. For example, we have made very good progress in driving down instances of blockages in our sewers by reducing the number of wet wipes and other inappropriate items being flushed down sewers. Although we have made good progress, there is still more to do. That provides benefits to customers and savings for us, which can be shared across our customer base.

Stewart Stevenson: I have decided that a million litres is actually 2,500 tonnes—I was wrong by three orders of magnitude in my first estimate, so I offer my apologies. I could not quite remember, in doing the calculation, that a gallon of

water is 10 pounds. Never mind—that is neither here nor there.

I turn to Business Stream, with a question for Jo Dow. What role does Business Stream, which is essentially selling the services of Scottish Water to business customers, have in driving efficiencies in the non-domestic sector? For that matter, as I believe that you have business outwith Scotland, are you also doing that for businesses elsewhere?

Jo Dow (Business Stream): As a responsible business, we recognise the importance of ensuring that our own business is adopting sustainable practices. To that end, we use the Business in the Community responsible business map to define how our contribution to society, the environment, local communities and so on sits within our organisation

Earlier this year, we launched a new vision for making a positive difference. As a retailer to business customers, we recognise that we have a key leadership role to play. Approximately 25 per cent of all the water that is consumed in the UK is consumed by business customers. We now have 340,000 business customers across the UK, which is about 20 per cent of the total market. We recognise that we have a key role to play there in helping to encourage our customers to use less water.

To that end, about a year ago we launched a pledge whereby we committed to support all our customers to help them to use 20 per cent less water. That is a bold statement, but we do that on the basis of an understanding that the average business in the UK is using 30 per cent more water than it should be.

For us, the benefits are twofold. If we can encourage businesses to use less water, they are not only helping the environment but significantly reducing their water bills. A sustainable year-on-year reduction has applied.

Stewart Stevenson: I was going to come to the point about bills. It is clear that, if you are selling 20 per cent less product to your customers, and you charge on the basis of metering, rather than charging through service delivery, as Scottish Water essentially does, that represents a direct hit to your income. How do you deal with that?

Jo Dow: We do it knowing that it will have an impact on our income and our profitability, but we do it because it is the right thing to do. If we do not encourage our customers to use less water, somebody else will. A key aspect of our vision as a responsible business is doing the right thing, and that is about more than financial returns—it is about how we make a positive contribution to the environment and to society as a whole.

Stewart Stevenson: If you do the right thing better than everyone else, your business may grow.

Jo Dow: Absolutely.

Stewart Stevenson: However, we will park that issue for now.

The Convener: Can you give us an example of what you do to encourage people to use less water in their businesses?

Jo Dow: Often, it involves really simple measures. Approximately 80 per cent of our customers across the UK are small and medium-sized enterprises, and—more often than not—they may just have a tap and a toilet. By fitting aerators to the taps and dual-flush mechanisms to the toilets, they can save a huge amount of water.

The other area that we tackle is hidden leaks. If a customer has a leak, that means that an awful lot of water is being wasted. We can help on that side too. For some of our larger industrial customers, we look at a whole range of options, including things such as grey rainwater harvesting. There is a wide spectrum of things that we can do to help our customers to use less water.

The Convener: I have a final question before we let you go. It relates to population growth and movement. How do you factor those things into your economic strategy?

Douglas Millican: We are at both a strategic and a specific location. There is no doubt that we are seeing a trend, as everyone is, of a growing population and a general move from west to east in the country. In addition—this is especially relevant to our business—the growth in the number of households is exceeding the growth in population. We are very aware of those trends, and they inform how we work strategically with local authorities and developers to understand where future development is likely and how we can support that effectively. We are very much engaging with local authorities and major developers in a strategic sense, looking at a two-year to a 10-year or 15-year horizon.

When we look at a specific investment proposal, we will very much factor into account what we envisage as credible growth in an area within a foreseeable time horizon.

11:45

The Convener: Now that digital connectivity is much better, we might find that large companies decide to locate in smaller towns or outlying areas rather than in cities. That will have a big impact on water capacity and use. How are you factoring in that element?

Douglas Millican: With business in particular, we have to look at such things case by case. In recent years, with the support of the Scottish Government, we have changed our policy to make it much more pro-business in supporting the water supply side.

On the waste water side, we have to be a bit more careful, because the nature of one company's effluent may be quite different in its characteristics from that of another company's effluent. Although we very much want to accommodate the growth ambitions of any individual company, we have to ensure that we do so in a way that, from a financial angle, is fair to the generality of our customer base. A cost-sharing mechanism may be required there. We try to be as pro-business growth as we can, as well as supporting household growth.

Mark Ruskell: I want to ask you about what you see as the threats or potential opportunities from trade deals. Obviously, you are a regulated state utility. Could that be challenged, or could Business Stream see an opportunity to supply water to business customers in the United States, perhaps? How does that sit within your corporate understanding of the risks and opportunities going forward?

Douglas Millican: We are trying to keep abreast of all the different possibilities that we can see around all things Brexit related, and what could flow thereafter. We are looking at the most credible scenarios and think about how we plan for those and respond to the rest. At present, we have not considered any particular threats from trade deals specifically, but a lot might depend on what the nature of such deals might be.

The Convener: I have to round up this session just now. Thank you very much for your time this morning. I suspend the meeting to allow for a change in panel.

11:47

Meeting suspended.

10:50

On resuming—

The Convener: Welcome back. We are continuing to hear evidence on Scottish Water's future investment priorities and I am delighted to welcome Peter Peacock and Sam Ghibaldan, the chair and the director of the Customer Forum for Water, respectively. Sam, did I pronounce your name correctly?

Sam Ghibaldan (Customer Forum for Water): Close.

The Convener: Apologies.

Sam Ghibaldan: To be fair, it was closer than most.

The Convener: Finlay Carson will ask the first question.

Finlay Carson: I apologise—I have to leave straight after this question, so thank you for letting me in, convener.

The forum was set up to try to achieve the highest possible level of customer and community focus within Scottish Water's practice. Can you explain to the committee exactly what your role is within that and how you approach the job of representing customers? How does the public engage with you? At what level do they engage and under what circumstances?

Peter Peacock (Customer Forum for Water): Essentially, we were created to put the customer voice right at the heart of the process that Douglas Millican and his colleagues were describing. The question that we constantly ask Scottish Water is, how is what you are proposing in the interests of customers? If it can give us convincing answers, we will go along with that. If it cannot, we will ask it to go and reconsider, to come back with different proposals, to drop a proposal or to maybe introduce a new proposal. That is the kind of disposition we take.

We are just individuals, like any other citizens, so how do we have legitimacy in making any points to Scottish Water? We try to do that by putting ourselves in the place of customers and asking the questions that they would ask if they had the chance to quiz Scottish Water, as we do every month. We try to get some rigour into all that and represent customers in that way. However, our real legitimacy comes from understanding what customers themselves think. To that end, we do a lot of research with other stakeholders in the industry. One of the members of the forum chairs a body called the research co-ordinating group, on which we sit, and on which Citizens Advice Scotland, Scottish Water, SEPA, the DWQR, the Scottish Government and the WIC also sit. Sometimes the organisations in the group commission research jointly and sometimes they commission research individually, in co-ordination with the other organisations in the group, who also check it out. We have done something like 20 research exercises in the last couple of years, through which we have engaged many hundreds, if not thousands, of customers. On top of that, Scottish Water conducts regular customer engagement and feedback, and we get access to all of that data if we want it. There is a big process of engagement in that sense.

Let me mention one of our more recent exercises. We do quantitative surveys of people and recently we did a big exercise involving about

100 people, with groups of citizens in Hawick, Falkirk, Fort William, Glasgow and Dundee, I think. We spent a day with them—not us personally, but people on our behalf—talking about issues around the water industry and what they might mean for people, and then working out whether people's opinions are shifting on the basis of the further information that they get. We wanted to find out what are they actually saying about their water service and what they think about it. We try to get an understanding of a series of issues in that way and then we come back to our regular meetings with all the stakeholders to develop the strategic plan, and we use that data to articulate and argue quite strongly, on occasion, for positions on behalf of customers in that process. That is, essentially, how we work.

One thing that has guided our work—the committee might want to see this—is a document that we put into the conversation that was happening just over a year ago about the social contract between the people who pay their bills and Scottish Water, in terms of the services that the company offers them. It covers a range of things, starting from the premise that, because Scottish Water is a publicly owned company, the citizens have high expectations of it. High ethical standards are required. It must be open and transparent in all that it does. Not only does it have to deliver clean water and take our waste away and clean it before it puts it back into the environment, it has to relate to its communities more effectively in future. In particular, it has to pursue a one-planet approach to prosperity, increasingly cutting carbon emissions and so on. We made about 20-odd points in that document, which the committee might find quite helpful. It states what customers want in return for the money that we pay for the service. I hope that that answers your question.

Finlay Carson: That is a very good answer. You mentioned the social contract. Do you benchmark Scottish Water against other utility companies, even if they are not publicly owned, to find out whether it is delivering the same level of service—or a higher one—as those other companies and organisations?

Peter Peacock: Yes. I chaired the forum during the last period of review as well and, during that time, we argued strongly for what we called the high esteem test. We wanted to know how Scottish Water compared with a range of organisations, not only with other utilities, because comparing with other utilities is not a very high benchmark—utilities often have low scores compared to, say, Amazon and other commercial organisations. On the back of that, Scottish Water introduced a customer experience measure for households and business customers so that it can monitor the direct customer experience of its services. That is an internal thing within Scottish Water. It is also part of the UK customer satisfaction index, which looks at all utilities and other companies, so it can benchmark itself against those.

We had a meeting with Scottish Water in the past six weeks to consider its performance against other industries. It has been improving. In the utility sector, Scottish Water is seen as a very good performer, but it is still not as high as some of the best performers in the private sector. Scottish Water is alert to that and that bit of the organisation is keen to ensure that it continues to perform well on that. So, there are means of starting to do what you are talking about.

The Convener: I have a quick question: what are the main issues coming from consumers? Is that too broad a question?

Peter Peacock: It is a big, complex subject. We have many surveys looking at different things but, if you boil it right down, customers want to see maintenance of their current service levels. By and large, people have a very high regard for what they get from Scottish Water. Despite what Mr Carson said earlier, it largely provides an uninterrupted service of high quality, and it has a reputation for being pretty responsive. We know from survey work that, by and large, the public in Scotland trust Scottish Water. Indeed, they have pride not only in the product—water to drink—but in the company as well. They want to maintain that high regard. That is the first key thing. Within that, there are big challenges, because, unless you replace your assets, you cannot maintain your service, and that is one of the big cost pressures that is coming through.

The second big issue is that climate change has moved to absolute centre stage. We have seen a big change in that regard over the past few years of surveying. People are anxious about climate change and they want to be sure that Scottish Water does the right thing and they want to be helped to do the right thing. There were earlier questions to Scottish Water about how customer behaviour can change, both to reduce their costs and to do the right thing by the environment. Customers are keen to learn more about that. The in-depth exercise that I just referred to involving about 100 customers showed that they are keen to understand much more about Scottish Water, partly because they know that there is upward pressure on prices because of climate change and because of the need to replace assets. How can they be guaranteed that they are getting value for money? How do you persuade people that it is right to pay slightly more to address the climate crisis, for example? It is not my job to persuade them of this, but do they themselves consider the

issue? We are beginning to get some insights into that and to understand what it means.

Sam Ghibaldan can add another couple of things about customers.

Sam Ghibaldan: As Peter Peacock said, the key message that came out of that in-depth research exercise, which involved a day and a half of active engagement, presentations and deliberations, was that people want to maintain their quality of drinking water and the reliability of waste water services. However, they also said that they wanted Scottish Water to play a leading role—I think that that is an important phrase—in tackling climate change. As Peter mentioned, that has become much more of a mainstream view.

12:00

In this research, we were able to consider generations' relative views on climate change. We assumed that the issue would probably be more important to the younger generation, for the obvious reasons that they have grown up with it and have had education about it at school, and that proved to be the case: we found that climate change is the most important thing to the younger generation, with reliability and quality of service close behind. However, it was interesting that the older generation also thought that climate change was an exceptionally important issue to deal with. That might represent a bit of a shift. It is hard to tell, but there is definite movement in that direction.

What also came out in the research was a desire for Scottish Water to be a publicly owned company delivering what we might call enhanced or additional public benefit. When it does things in communities or carries out capital investment work, it should think about how to do it in a way that might provide something, such as a footpath and access to somewhere, or should have partnerships with communities that are designed to deal with catchment area flooding or something like that.

Another key thing is people's desire to know more, which I think that Peter Peacock mentioned. It was fascinating to observe the groups' discussions because the more that people understood Scottish Water's operations and how the water cycle works, the more they wanted to know about them. They could relate more to how Scottish Water works in their communities, and how they themselves could change what they do, which I think relates to the question about behaviour change that was asked in the previous session with Scottish Water.

On top of that, the research showed that part of the reason why they want to know more involves a concern about value for money. On the whole, people felt that they were paying a fairly reasonable cost, but they wanted to know that they were getting value for money and that they will continue to get value for money in the future.

Peter Peacock: I will add a further point, in the interests of balance. The issues around climate challenge and what it means for services are not immediately obvious to people. Some of the committee's earlier conversations today have touched on that. However, when you explain the issues to them in depth, you find that people are remarkably sensible, sane, balanced and level-headed. They get it—they understand the challenges and are prepared to contemplate change on the back of that.

The data from customers who are not given that information is somewhat different, and we find that they are resistant to price changes above the rate of inflation. The evidence on that issue differs, but there is some quite strong evidence around that. When 600 customers who had not been given any information about anything were asked their position about water prices and the possibility of increases, more than 80 per cent did not want an increase above inflation. That is why we have done another exercise to determine whether engaging with people and communities and helping them to understand the issues will change their disposition on increases in water prices. We want to find out whether what might be coming down the track in terms of pressure on water prices and, no doubt, taxation, with regard to other services, becomes more acceptable if people understand the issues. The lesson that we are learning from that exercise is that no one should expect to be carried from the room shoulder high with adoring crowds cheering if they just put up water prices and do not explain the reasons for that but that, if, on the other hand, there is a serious and large engagement exercise, the signs are that people get it. That reflects your earlier conversations with the Committee on Climate Change about social engagement.

I try to represent customers in the process. Customers have a right to know where their money goes—to be told that and to be allowed to appreciate and understand that. If you do not give them that right, you will probably head into difficult territory. However, if you fulfil it, you will probably have a serious set of conversations with people about what are real challenges.

Finlay Carson: A short yes/no answer will probably suffice to this question.

Peter Peacock: You will be lucky.

Finlay Carson: Are your interventions with Scottish Water on behalf of communities conducted at a high level, or do you get involved in individual communities with individual projects?

Peter Peacock: We do not get involved with individual communities, but we have seen the scenario that you painted earlier. I will give three examples.

I live near the village of Ardersier, which still has signs outside it saying, "Scottish Water—keep out". The village of Gairloch, in the west Highlands, hit the headlines a couple of years ago with its problems in that regard and Aviemore also had big problems. Those examples immediately come to mind and we have raised all those problems with Scottish Water. However, that Finlay Carson and I can name only four or five projects with problems in that regard, despite the fact that hundreds of projects are going on, shows that it is not the biggest issue.

We have done research jointly with Scottish Water and Citizens Advice Scotland on better community engagement methods, and we have recommended to Scottish Water that it needs to gear up its practices on that. Scottish Water is running, or is about to start, three pilots to examine how to engage communities more effectively and earlier in the delivery of capital projects. Douglas Millican made that point earlier. Once Scottish Water has decided what to do, it is good at telling a community that it will be coming in six weeks' time to do it, for example, but it has not been so good at telling a community earlier in the process that work might require to be done in the community in the next decade, describing what it might be, asking how it can involve the community in deciding the best way to do it and assessing what wider public benefits can be obtained on the back of that.

That kind of engagement is a big culture change for Scottish Water, but we think that it is addressing that issue and is trying to build in community engagement rather than bolt it on as an afterthought. I am sorry for the length of that answer.

Finlay Carson: It is a good answer.

Sam Ghibaldan: Just to add, in providing information and engaging with communities and people generally, companies such as Scottish Water will publish things on their website, write to people and put leaflets through people's doors. However, there is clear evidence that companies sometimes have to be a bit more imaginative about how they do all that. I think that Scottish Water is learning that from its pilots. In relation to that, I have an example regarding a village—I am struggling to remember its name—where I went to a meeting to hear about the evaluation of a project last week or the week before. It was somewhere on the west coast and Scottish Water was looking at the issue of lead pipe replacement. The Scottish Water representatives found that going to the local pub quiz and talking to people there was one of the most effective ways of engaging with them.

There is a genuine appreciation in Scottish Water that it needs to think more imaginatively about how it undertakes that type of engagement process, and it is learning how to do that.

Finlay Carson: Thank you.

Claudia Beamish: I am interested in the social contract, many aspects of which the witnesses have explored with us. If I remember correctly, Mr Peacock said that there was a 20-point plan. Is Scottish Water listening well to your forum on areas such as your emphasis on a social contract and the other aspects that you have described, and are there areas where it could improve?

Peter Peacock: We will send you a copy of the document, which makes about 17 different points. It has a very particular context, but we will send it to you, and you might find it helpful.

To be honest, Scottish Water is a pretty remarkable company to deal with. When we meet its representatives in private, they are extraordinarily open with us. Further, one of the characteristics of the chief executive is that he will not promise to do anything unless he is actually prepared to do it. When we have engaged with Scottish Water, we often get a bit of pushback. We have come to learn that that is for a very good reason: it is the chief executive buying himself time because he had not previously heard of or thought of the issue that we brought up and needs to go away and think about it, so he will not promise us anything in that regard. Invariably, he comes back within a couple of months and indicates that, based on the previous conversation, he thinks that something could be done but perhaps not in the way that we had thought.

Scottish Water, therefore, listens, and I am genuinely impressed by its desire to do the right thing by customers and communities. We can debate what the right thing is, because we do not always agree with Scottish Water and we push it hard on some things and it will push back if it thinks that our ideas are wrong or not practical. Generally, though, Scottish Water is to be commended for taking matters seriously and trying to move forward on them.

Claudia Beamish: Sam Ghibaldan, do you have a comment on that?

Sam Ghibaldan: No. I agree entirely with what Peter Peacock said. Throughout the strategic review process, people at all levels of the company have been open and have engaged with us. One of the important and interesting things about the review is that it has gone into things in great depth. I have no idea how many meetings I

and others have been to, but it is probably hundreds over the past two or three years, and we have considered lots of issues in great detail. That has meant that individuals at several different levels of Scottish Water have had to open up to a range of regulators, including the Customer Forum for Water. In fact, the process itself has made people at Scottish Water start to think about the wider context of what they do, rather than just saying, "We're some engineers, and we need to build something." That has meant a bit of a cultural shift, as the process is opening up Scottish Water to that kind of consideration. As Peter Peacock says, that is at the senior level, but it is also the case in other parts of the organisation. That has been very valuable.

Mark Ruskell: We have perhaps already covered elements of the tone of the discussion between different partners on the development of the investment plan and the strategic review, but could you give us a bit more of a nuts-and-bolts answer on how you work with the Government, Scottish Water and the Water Industry Commission for Scotland on those two pieces of work? How does the process work? Where do the views from the Customer Forum for Water come into the process, and how do they get formally dealt with?

Peter Peacock: Our forum meets every month, and we will normally have an hour to two hours with Scottish Water every month—a representative will come and present to us on some aspect of Scottish Water's work, giving us a chance to probe, to understand and so on. This time round, over the past few months, the focus has been more on the detail of the strategic plan and what is emerging. That is one mechanism.

The main mechanism throughout the review, however, has involved a group chaired by Scottish Water called the strategic advisory group. Round the table sit representatives of the Water Industry Commission, the Scottish Government, the Customer Forum for Water, Citizens Advice Scotland, Scottish Water itself, of course, the Drinking Water Quality Regulator for Scotland and SEPA. We meet every month, and we talk about all the things that require to be discussed in relation to the strategic plan.

Inevitably, that group has spawned many other groups. There are nine different groups, including that one. Groups have been examining the water service, the waste water service and what is called flourishing Scotland, which considers the wider role of Scottish Water in meeting national outcomes and the strategic development goals. A group has been looking at the investment prioritisation framework for the future, asking the sort of questions that David Satti referred to, about what criteria to appraise a project against in future. Another group is considering performance measures.

The forum has been part of all of that. There are three groups that the Scottish Government chairs that we are not part of. Apart from those, however, we are a full part of the process and full participants in the process. We try to bring a customer view into the process in the way that I described earlier. That describes the mechanics of what we do.

Mark Ruskell: Does that model work? Is there anything that you would change about it? Is that an effective platform for feeding customer views in?

Peter Peacock: It has been hugely resource intensive.

Mark Ruskell: It sounds it.

Peter Peacock: It has taken up a colossal amount of time. I was interested to hear the questions that Mr MacDonald was asking earlier. The Organisation for Economic Co-operation and Development has been sitting alongside the process, and it is independently evaluating it. It has not done that evaluation yet—it is observing the process, and it is considering the regulatory implications. At some point at the end of the process, the OECD will make a report, which will help people to think back: what have been the good things about the process, but what else might have been lost in the process compared with traditional regulation? The approach is all very new, but it is a matter of being reassured that there is an independent appraisal process running alongside. I would hope that questions would be asked, for instance on whether something similar would be sustainable again.

We have 10 members of the forum, and they have been participating in all the working groups that I have mentioned. Co-ordinating that creates big challenges for us. What are the lines to take? How do we feed back and brief our colleagues? There are big resource questions stemming from that. There are also wider questions of the sort that Mr MacDonald was getting into earlier, which I think the evaluation will begin to consider.

Mark Ruskell: Will that evaluation also cover international examples? Is the situation in Scotland unique?

Peter Peacock: It is pretty unique.

Mark Ruskell: What about other industries? Stockholm Vatten, for example, is a municipally owned water utility operating within a city. I do not know how it deals with such processes or whether it has a similar structure of engagement with the public and other stakeholders—or is such an approach a uniquely Scottish thing?

Peter Peacock: It is pretty unique. It is an evolution of the first process that ran up to 2015, which was also pretty unique. I was involved in that, and the evolution has involved the regulators and the Government more than in the past.

12:15

The process was evaluated independently by an academic. I guess that the regulatory bit of the OECD is doing it for the precise reason that it will see whether lessons can be learned from other jurisdictions—it advises on regulatory policy internationally across all the sectors. A group of peer reviewers from the OECD comes every year; they are coming this month and they will interview all the stakeholders. They are regulators from other countries—they include Mexico, Italy, France and South Africa, and I could go on—so there is an international dimension to the evaluation.

Mark Ruskell: What were your objectives for the strategic review of charges? What fed into the working groups?

Peter Peacock: If I give you the social contract document, it will give you a clue about what we were fishing for. The simple line is that we want to get the best level of service for the lowest possible cost, which is quite a tension.

We have played a fairly big role in raising questions about affordability for customers, because we want to make sure that the price is generally affordable as well as specifically affordable for those in the most vulnerable circumstances. That is a policy matter for the Government and we have not been involved in the detail, nor would we be. We make the more general point that customers are facing tough economic times and we are in the most uncertain political and economic circumstances that any of us have ever known. What it will mean for the economy and how we make sure that the services that come through are affordable for the general population is one dimension to what we have been doing.

We have pushed very hard on climate issues for 18 months or more. The First Minister's climate emergency speech earlier in the year and then the programme for government have focused minds inside this sector wonderfully. We have seen the issue move from not being in the centre stage to being absolutely centre stage today—we have pushed a lot for that.

We have also pushed on other things. We have asked questions about rural supplies. Many people are still on private supplies—might they want the option to be connected to the mains supply? We have pushed about lead; a lot of households still suffer the consequences of lead, some of which is in their piping, not the public network—what should we do to sort that out? We have pushed for a whole range of things across service issues, and they are reflected in the document that we will send to you.

Sam Ghibaldan: I do not know whether Mark Ruskell has seen the water industry vision, which was published last month. It encapsulates a lot of what we have pushed for. We were involved in writing it with other stakeholders. It puts up front the vision for Scottish Water for the next 20 to 25 years and it deals with things such as tackling climate change, providing better services to communities, ensuring that there is excellent quality water throughout Scotland and providing value for money.

Claudia Beamish: A lot of what I was going to ask about changing externalities and how they relate to your social contract and your role as the Customer Forum for Water have been answered—and very reassuringly, if I may say from my perspective, although I cannot speak for the whole committee. Are you able and empowered to relate to other organisations and public bodies, such as local authorities, to deal with the climate emergency or SUDs or urban creep, as it has been termed recently in the media, which involves lots of extensions? Those examples relate to private properties, but you may have others on the more general issues.

Peter Peacock: I completely get your point. I was fascinated by the earlier discussion with the Committee on Climate Change about some of that stuff, because we see the practicalities in the discussions that we are in the midst of. The short answer to your question is, "No, we do not have a locus to talk to those bodies." We have said very firmly and clearly to Scottish Water that it sits in a unique position. It sees the implications of the policies of other agencies.

On your point about urban creep, as more roofs are put on over more land, so there is faster run-off of drainage. As more people tarmac or pave their drive with impervious surfaces, so there is faster run-off. From a customer point of view, we are saying to Scottish Water, "If you know that, you have an obligation to say that to the Government and to push for change in development control, planning regulations and so on." Otherwise, the customers pay for the consequence in cash terms—they pay the price. That would be unnecessary if we could eliminate the problems upstream. If our building control was significantly different in some respects, so that water was held back around properties before being released into the system, that would help.

We have tried to say to Scottish Water that we think that it should be more active in the tying-up of policy. It has responded to that, and I think that you will see some stuff about that in its emerging

strategic plan. So many things connect to this agenda. Scottish Water has a major challenge in thinking about how it delivers services over the next 40 and more years, because its answer to previous problems has been to engineer its way out of them. It is highly accomplished and very skilled at doing that, but it is probably not sustainable—in the full sense of the term—in the future. Douglas Millican made the point that it does not want to do a lot of offsetting, it wants to solve the problem and it will. It will probably have to do some offsetting as well, but a fundamental change is required and part of that is making sure—and we think that Scottish Water has a role in this—that wider Government policy connects. I thought that your conversation with the Committee on Climate Change today echoed exactly that in asking how we make sure, in delivering all this, that all public policy is joined up. Thankfully, that is not my job.

Sam Ghibaldan: There was a question earlier about behaviour change. What we know about changing people's behaviour is that you have to make change easy, and preferably aspirational. The way to achieve sustainable, long-term change is by making the new behaviour almost simpler than what was happening before. In addressing many of the issues Scottish Water faces, it is critical that it involves planning consent, planning authorities and local authorities, because Scottish Water will be working with developers to do things such as having permeable surfaces or putting things into new buildings for collecting rainwater or grey water for garden use. It is that kind of more imaginative thing that we need third parties and third agencies to act on.

Peter Peacock: Scottish Water and SEPA are working on some of that for the future. There is a very clear relationship. SEPA has a dual role here: it has an enforcement role in relation to licensing, regulating discharges and so on, and it also has its one-planet prosperity role. Sometimes, those are slightly in conflict, but SEPA and Scottish Water are doing some really positive work with each other to look at some of these issues more expansively for the future.

Claudia Beamish: You have touched on the possibility that customers—if they are not vulnerable customers—might consider paying more for things that they understand to be part of the developing conversation on the climate emergency, for example. Do you see any role for yourselves in taking forward suggestions about incentivising customers—for instance, to put in systems for grey water, or any of the things that you have mentioned—or is that not really part of your role?

Peter Peacock: We have not looked at those particular things, although we have had conversations with Scottish Water about how it advises customers about using less water, which takes us into some of that territory. We have asked in the past whether Scottish Water could offer a service beyond the fence, into the private property. It could look at whether there is lead in a property and whether there is leakage. It could look at water use—there are some techniques to reduce water use—and it could look at how people can store more water on their property and how they can prevent flooding and so on. We have raised those questions with Scottish Water and I hope that, over time, it will continue to make progress on that. There is a range of complex things that it needs to look at, but there is much more.

It comes back to some of the points that committee members—Mr Carson in particular—made earlier to Scottish Water about engaging with communities. It would have been odd for Scottish Water in its past role to have considered having—and I am not suggesting that it do this—a member of staff with other agencies in a catchment area, where all this stuff begins to make sense, who would go around animating the community to do all these things. It could have more community partnerships to allow communities to have better control of all the things that affect all of us in the water system. It could look at it at catchment level and, as your committee does, bring together forestry policy, land use strategy, land ownership strategy and river basin management planning, as there is a whole series of synergies there. Communities potentially have a large part to play. That is a very new world for Scottish Water, and it will take time for it to think its way into that and to develop the skills fully to be able to do it in a more participatory way. We would like to see that happen, but I am not under any illusion—it is a difficult task.

I think that it is part of how we meet the wider climate challenge. Our evidence is that, if you engage people seriously in conversations and share the real challenges with them, they will respond. If you do not, I suspect that you will not make a lot of progress.

Sam Ghibaldan: One thing to add is that the Customer Forum for Water represents business customers as well as domestic customers. Indeed, we have representatives of the licensed providers on the forum. There is perhaps more opportunity to incentivise positive behaviour from business customers, such as reducing their water use and installing permeable drainage and things of that nature. That is certainly something that we have raised with Scottish Water and, again, we have had a positive response.

The Convener: We are rapidly running out of time but, before we close, is there anything we

should be looking at in this area that we have not covered already?

Peter Peacock: That is a terribly open-ended invitation.

The Convener: It is, but I am making it anyway.

Peter Peacock: There is a major tension at the heart of this strategic review: how do you make progress on replacing assets and meet the climate challenge while keeping charges affordable? We must think about both things. Somewhere, judgments have to be made about all that. We have been anxious about household economics and political uncertainty going forward. We need strong customer engagement in the future and we have been advocating that not only should there be a strong role for customers in future in checking that Scottish Water is delivering, offering value and giving the reassurance that customers need, there has to be serious engagement from Scottish Water. It is listening carefully to this, I know, and responding very positively. It needs a serious engagement exercise to explain the challenges that it is facing to the wider population. That is important. Then there are all the implications that come from being a publicly owned company: the need to be ethical, transparent and open, and to contribute to the wider national performance and the national outcomes that the Government wants to see. Those points are important.

Also, we need to keep all this under review. We need to have safeguards for customers so that, if we get some of the assumptions that we are making today wrong, because we have not fully accounted for climate change or we have overaccounted for it, it can be reviewed as we go forward. These things will remain important as we move on into the future.

The Convener: Thank you both for your time this morning. That concludes the committee's business in public today. At its next meeting, on 12 November, the committee will hear evidence from stakeholders on the proposed deposit return scheme regulations.

12:28

Meeting continued in private until 12:44.

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