

RURAL AFFAIRS AND ENVIRONMENT COMMITTEE

Wednesday 23 January 2008

Session 3

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RURAL AFFAIRS AND ENVIRONMENT COMMITTEE

2nd Meeting 2008, Session 3

CONVENER

*Roseanna Cunningham (Perth) (SNP)

DEPUTY CONVENER

*John Scott (Ayr) (Con)

COMMITTEE MEMBERS

*Karen Gillon (Clydesdale) (Lab)

*Jamie Hepburn (Central Scotland) (SNP)

*Des McNulty (Clydebank and Milngavie) (Lab)

*Peter Peacock (Highlands and Islands) (Lab)

*Mike Rumbles (West Aberdeenshire and Kincardine) (LD)

*Bill Wilson (West of Scotland) (SNP)

COMMITTEE SUBSTITUTES

Bill Kidd (Glasgow) (SNP)

Nanette Milne (North East Scotland) (Con)

John Farquhar Munro (Ross, Skye and Inverness West) (LD)

David Stewart (Highlands and Islands) (Lab)

*attended

THE FOLLOWING GAVE EVIDENCE:

Aileen Bearhop (Scottish Government Rural Directorate)

Jim Conlin (Scottish Water)

Professor David Crichton (Benfield UCL Hazard Research Centre)

Mark Dickson (Scottish Water)

Richard Lochhead (Cabinet Secretary for Rural Affairs and the Environment)

Ronnie Mercer (Scottish Water)

CLERK TO THE COMMITTEE

Andrew Mylne

SENIOR ASSISTANT CLERK

Mark Roberts

LOCATION

Committee Room 4

Scottish Parliament

Rural Affairs and Environment Committee

Wednesday 23 January 2008

[THE CONVENER *opened the meeting at 10:03*]

Subordinate Legislation

Agriculture and Horticulture Development Board Order 2007 (Draft)

Quality Meat Scotland Order 2008 (Draft)

The Convener (Roseanna Cunningham): I welcome everybody to the meeting and remind members and witnesses to switch off their mobile phones and pagers or to put them in flight mode, not receiving wireless communications.

The first item on the agenda is subordinate legislation, and our business today starts with consideration of two affirmative instruments. I welcome Richard Lochhead, the Cabinet Secretary for Rural Affairs and the Environment, and his officials: Aileen Bearhop, from the agriculture division, and, in a change of personnel, instead of Sandy McNeil, Malcolm McMillan, from the solicitors rural affairs division. Members may ask questions on the instruments before we move to the formal debate on them, which is agenda item 2. The officials can contribute to the discussion under agenda item 1, but they will not be able to contribute to the discussion under agenda item 2.

I invite the cabinet secretary to make an opening statement on the two affirmative instruments. For obvious reasons, we would like you to keep it brief.

The Cabinet Secretary for Rural Affairs and the Environment (Richard Lochhead): It is a pleasure for me to be at the committee for the first time in 2008. I was informed on the way here that the Scotland rural development programme has been voted through by the European Union's Committee on Agriculture and Rural Development. That is good news, as it will allow us to stick to our original timetable. Importantly, in the short term it will enable us to deliver the less favoured area support scheme payments, which are worth £61 million to Scotland's farmers. I hope that that will begin before the end of the month, as originally timetabled.

John Scott (Ayr) (Con): That is very welcome.

Richard Lochhead: I thank the committee for giving me the opportunity to present the two orders to it. Both orders are made under the Natural Environment and Rural Communities Act 2006. The work behind the orders began in March 2005, when Rosemary Radcliffe was charged with undertaking a review of the five existing levy boards—the Meat and Livestock Commission, the British Potato Council, the Home Grown Cereals Authority, the Horticultural Development Council and the Milk Development Council. The review also examined the structure of Quality Meat Scotland.

The review concluded that there remained a need for a compulsory statutory levy, but that changes were required to ensure a common overall framework for levy bodies to encourage common working and approaches, where possible, and to promote efficiencies. A new structure was proposed to ensure that those who were responsible for using the levy were as close as possible to the levy payers and that appropriate monitoring and accountability arrangements were put in place. Rosemary Radcliffe recognised that ministers in Scotland and Wales might want a different arrangement for their red meat bodies. All United Kingdom ministers agreed to the implementation of a modified version of the proposed Radcliffe model.

The purpose of the Agriculture and Horticulture Development Board Order 2007 is to abolish the existing levy boards and establish a single new public body in the form of the agriculture and horticulture development board. The order provides for the establishment of subsidiary companies for each sector. It is intended that companies will be created for the six sectors of cereals and oil-seeds, horticulture, milk, potatoes, beef and lamb in England, and pigs in England.

Quality Meat Scotland is currently a private company. The dissolution of the Meat and Livestock Commission means an end to the current arrangements whereby functions of the Meat and Livestock Commission in Scotland are delegated to Quality Meat Scotland. Given the distinctiveness of the red meat sector in Scotland, it was not appropriate for Quality Meat Scotland to come under the wing of the agriculture and horticulture development board.

Procurement rules require a full tendering exercise to be carried out if public funds—levies—are to be passed over to bodies that are not wholly publicly owned. Quality Meat Scotland could not, therefore, be guaranteed responsibility for levy expenditure if it remained a private company. The Quality Meat Scotland Order 2008 provides for the organisation to be established as a public body that is fully accountable to Scottish ministers. In reality, there should be no wholesale change to

current accountability arrangements for Quality Meat Scotland, and there should be no extra costs for Government. Sponsorship arrangements are in place to ensure appropriate use of Scottish levy for the delegated Meat and Livestock Commission functions.

The restructuring will improve accountability to levy payers, who will be well represented on the boards of the sector companies and Quality Meat Scotland. The provisions that allow for a ballot of levy payers, should 5 per cent of levy payers request a ballot, will also improve accountability. The agriculture and horticulture development board will provide more scope for collaboration and co-operation between levy boards. We expect Quality Meat Scotland to continue to co-operate effectively with its counterparts in England and Wales. In drafting the orders, we have taken the opportunity to make improvements to levy collection and to reduce the regulatory burden—for example, by removing the obligations to register in the horticulture, potato and cereal sectors.

Throughout the policy development process, there has been considerable stakeholder involvement. During the review process, Rosemary Radcliffe consulted—often face to face—a wide range of industry players. That included detailed discussions with the Scottish industry and with Scottish ministers in the previous Scottish Executive. Public consultations were conducted on the review recommendations and, later, on the proposals for the two orders. There has been overwhelming support for continuation of the levy—in Scotland, too—and strong support for the proposals for change. That has included support for the establishment of Quality Meat Scotland as a public body that is accountable to Scottish ministers.

The levy bodies have been fully engaged in the implementation process through project and strategic boards that were established by the Department for Environment, Food and Rural Affairs. There have been some concerns, particularly from the horticulture sector, in the course of that work, but the view of Rosemary Radcliffe and ministers was that horticulture would benefit from inclusion in the new structure and from greater collaboration with other sectors.

Quality Meat Scotland has been working closely with Scottish Government officials and the Meat and Livestock Commission to ensure a smooth transition to public body status.

The start date for implementation of the new levy board structure is 1 April 2008 and we are on target to meet that deadline. We will then have a levy board structure that is more joined up and efficient and closer to levy payers. The new structure and improved accountability will benefit

the agriculture and horticulture industry. For the red meat sector, we will have a separate structure that is in the best interests of the Scottish industry and which is wholly accountable to Scottish ministers. I invite the committee to approve the orders.

The Convener: While we are on agenda item 1, I ask members to keep their questions to relatively factual issues. We will take any argumentative debate under agenda item 2. That will allow us to get through the process more clearly.

John Scott: I am pleased to hear that piece of good news from the minister.

There was an issue with regard to the value added tax status of the levy boards. I presume that that has been sorted out and that the VAT payments to the Exchequer will not be any greater than they have been hitherto for QMS.

Richard Lochhead: My understanding is that that is the case, but I ask Aileen Bearhop to comment—we were discussing the issue earlier.

Aileen Bearhop (Scottish Government Rural Directorate): John Scott is correct.

John Scott: So that has been sorted out.

I have another question, just out of interest. You have decided to include butchers as levy payers at the point of slaughter, whereas before they were not. What are the reasons for that?

Richard Lochhead: The principle is that organisations or individuals that buy animals for slaughter pay the levy. The rationale has been extended to butchers, who do that in some circumstances. That is why they have been included. The measures will apply only to butchers who buy animals for slaughter.

Jamie Hepburn (Central Scotland) (SNP): Schedule 2 to the draft Quality Meat Scotland Order 2008 sets out the constitution of the new public body and the way in which it will be established. It states:

“The board members shall be appointed by the Scottish Ministers.”

When will the board be appointed? Can you give us more detail of the procedures that are involved?

Richard Lochhead: You are correct that ministers appoint the board. Quality Meat Scotland's current status is that of a private company. I have already reappointed the existing chairman, Donald Biggar, as the chairman of the new body. That announcement was broadly welcomed in the industry, as Mr Biggar has an excellent track record as chair of Quality Meat Scotland in the past few years. Donald is well respected.

I am in the process of appointing a shadow board. I have the ability to appoint up to 12 members to the board and no fewer than 50 per cent of the board members should be levy payers. I must follow those rules, which I am doing. I have not yet made my final decision—the process is taking place this week. We hope to make an announcement shortly when we have approached the successful candidates. I am taking advice on the appropriate individuals. The factors that I am taking into account include the need for broad representation of the red meat sector and perhaps a geographical distribution of the individuals. I am also considering the candidates' experience and appropriateness for the post.

That is where we are in the process, and I hope that we will make an announcement shortly. The shadow board will meet before 1 April—hence the term “shadow board”—and will then take over and become the board of the public body.

Des McNulty (Clydebank and Milngavie) (Lab): Under the previous Administration, there was a protocol between ministers that, if a minister made an application to set up a new quango, other ministers would vet the process. Was such a procedure in place? Was there consultation between you and other cabinet secretaries? Was it discussed at Cabinet whether, in principle, a new quango should be established in the circumstances?

10:15

Richard Lochhead: Yes. It has been discussed at Cabinet. We discussed the way forward for Quality Meat Scotland. We also discussed the wider agenda of the future of public bodies in Scotland. QMS is one of those bodies to which we are committed. I am in a slightly unusual position here, because the agreement was made prior to the Government coming to office. We fully support the outcome of the consultation process and the previous Administration's decision to go down this road, because it is the best way forward for the red meat sector in Scotland.

Des McNulty: It might be useful if you could write to the committee, indicating the steps that were taken to seek permission to establish a new quango, and the relationship between that and the Government's overarching policy on layering. I am not opposed to the decision in principle; I am just interested in how the procedures operate. It would be useful for the committee to understand the mechanism that was used by the department to secure consent. It is not an issue of whether it is a good idea in relation to QMS, but more of how any application to establish a new quango might be dealt with.

What will be the status of the staff of QMS? Will they be, in effect, executive agency staff? Will they be taken into the civil service or will they continue on their existing terms and conditions?

Richard Lochhead: Under the Transfer of Undertakings (Protection of Employment) Regulations, there will be a direct transfer of the staff from the existing private company to the new public body. Their pay and conditions will not change.

Des McNulty: Will they be counted in that context as members of an executive agency or as civil servants? Will they be counted in the overall total of staff who are employed directly or indirectly by the Government?

Aileen Bearhop: They will not be civil servants.

Des McNulty: I am interested to know how the overall numbers will work out. Perhaps you can come back to us on that issue, too.

Richard Lochhead: We will come back to you on how we calculate the numbers when we publish who works for, and does not work for, the Government.

John Scott: In the Agriculture and Horticulture Development Board Order 2007, the business case identifies

“Net Present Value savings of £12.7 million”

in a five-year period. In the Quality Meat Scotland Order 2008, there are no financial benefits. Are the savings just to the United Kingdom Treasury? Are none of them transferable in terms of the rationalisation of all those bodies to the Scottish Government?

Richard Lochhead: Scotland is involved in all the UK levy boards, other than those that relate to red meats. That is why we have QMS. Our cereal growers and potato producers, and all the sectors that are part of the UK structures, will benefit from the efficiency savings. The only Scottish structure here is the red meat sector. The £12.7 million savings will benefit Scotland, but they relate only to the UK bodies. That is because of the sharing of corporate services, for instance. The purpose of the order is to have an overall UK body. There will be a rationalisation of those services among the six constituent UK companies below that.

Aileen Bearhop: QMS is speaking to the Meat and Livestock Commission and its constituent bodies to ensure that assets transfer across and that it gets the benefits from that, too.

John Scott: And funding for QMS in the future will be from—

Aileen Bearhop: Scottish levy payers—the levies from producers and processors.

John Scott: Will that be the sole source of funding?

Aileen Bearhop: Yes, except for quality assurance schemes, which are self-funding schemes that are met from membership fees. It can also apply for grants from the Scottish Government in the same way as other bodies.

Richard Lochhead: We have supported Quality Meat Scotland financially in the recent past—we did so late last year, and that route remains open. The organisation also raised approximately £4 million in levies off its own bat.

The Convener: There are no further questions, so we move to agenda item 2, which is the formal debate on both draft orders. At this point, officials may not participate. I invite the cabinet secretary to move motions S3M-1166 and S3M-1167 together. He is entitled to make an opening speech, but he may consider that it is not necessary in the circumstances.

Richard Lochhead: In the interests of time, I am happy to forgo an opening speech.

I move,

That the Rural Affairs and Environment Committee recommends that the draft Agriculture and Horticulture Development Board Order 2007 be approved.

That the Rural Affairs and Environment Committee recommends that the draft Quality Meat Scotland Order 2008 be approved.

The Convener: I invite contributions from committee members. Having had the factual question-and-answer session, members may now raise any argumentative, or at least debating, points.

John Scott: It makes good sense for the bodies to have been rationalised in this way. I am particularly pleased about QMS retaining its independence in a Scottish context. I am very happy to support the motions.

The Convener: I assume, cabinet secretary, that you are waiving your right to wind up.

Richard Lochhead: I am happy to do so. I get the message.

The Convener: I am aware that you have another pressing engagement.

The question is, that motions S3M-1166 and S3M-1167, in the name of Richard Lochhead, be agreed to.

Motions agreed to.

The Convener: The committee will consider a draft report on the two draft orders in private at a future meeting. Is that agreed to?

Members indicated agreement.

The Convener: Thank you, cabinet secretary. I hope that your cold gets better.

Richard Lochhead: I am sorry about that.

The Convener: I also thank the two officials for attending.

Sheep and Goats (Identification and Traceability) (Scotland) Amendment Regulations 2007 (SSI 2007/559)

Zoonoses and Animal By-Products (Fees) (Scotland) Regulations 2007 (SSI 2007/577)

The Convener: Agenda item 3 is also subordinate legislation. This time, we have two negative instruments, on the identification and traceability of sheep and goats—our old friend—and on fees relating to the control of zoonoses. I invite Bill Wilson to correct my pronunciation of that.

Bill Wilson (West of Scotland) (SNP): Far be it from me to do that. I would not have the nerve.

The Convener: As committee members will remember, SSI 2007/559 was deferred from our last meeting. Correspondence from the Scottish Government and NFU Scotland is provided in paper RAE/S3/08/2/3. I invite comments from members on the correspondence that we have received. The committee has various options in respect of the regulations.

Peter Peacock (Highlands and Islands) (Lab): The correspondence has helped to clarify matters. I do not think that we are in a position to oppose the regulations, because the Government would find itself subject to infraction proceedings. That said, the documents are public, and the committee should note the clear disagreement between the NFUS and the Government about the basis of the actual cost to the industry. I find the NFUS's arguments persuasive and factual.

More important, for the sake of future preparation by the committee, we should consider the NFUS's point about electronic tagging becoming the big issue for the industry in the future. Perhaps we ought to write to the Government on the matter in advance. We have had notification from the NFUS on the issue, having asked it for its views, and we should begin to prepare ourselves for future changes.

John Scott: I agree with everything that Peter Peacock has said. There is no real benefit in double tagging. The industry is utterly opposed to it. Even the letter from the minister implies that the methodology that is used in some of the calculations is, at best, suspect. The NFUS is not happy about the matter, from what I can gather.

As I said, double tagging does not seem to provide any real benefits. The reason for its introduction is to improve traceability, but I am not even certain that traceability will improve—in fact, it may decrease as a result of the imposition of the new system. With those caveats, I must accept that, because of the possibility of infraction procedures, we cannot do anything other than allow things to go ahead.

The Convener: I will try to be helpful. The 40-day period for the instrument expires on 6 February, which is the date of our next meeting. Therefore, today's discussion need not necessarily be the final cut. A draft report could be produced for consideration on 6 February.

John Scott: I suggest that we simply get on with things, because we cannot responsibly put the Government in a position in which it would be liable to infraction proceedings being taken against it. It would be irresponsible for the committee to leave matters to the final day of the 40-day period, given the inevitability that is involved.

I utterly agree with Peter Peacock that the electronic tagging system shows every sign of being a disaster—

The Convener: But that is not what the—

John Scott: I appreciate that, but I want to respond to the NFUS's letter. A full cost benefit analysis needs to be carried out. I do not think that the proposed scheme, as it is currently structured, will deliver any benefits. We need a scheme that suits Scottish producers.

The Convener: There are various options that we can pursue, one of which is to write to the Cabinet Secretary for Rural Affairs and the Environment to invite him to respond to the points that the NFUS has made. The second option is to take oral evidence from the cabinet secretary and/or the NFUS. Obviously, we would have to schedule an additional meeting on 30 January to do that, but there is no guarantee that witnesses would be available within such a short space of time. The third option is to report to Parliament on the regulations. We would have to consider the draft report, which could include points that have been made, on 6 February. Finally, we could agree to make no recommendations on the regulations.

John Scott: We should write to the cabinet secretary. Double tagging is essentially an interim measure before electronic identification is introduced in 2010, which is why it is not worth going to the wire on the matter, notwithstanding the inconvenience that it will cause. However, we need to get a response from the cabinet secretary to the concerns that have been expressed, and we need to find an electronic tagging system that will work for Scottish producers.

Bill Wilson: If we wrote to the minister, we would put the emphasis on electronic tagging, which is causing the concern. We cannot do much about the regulations because we do not want infraction proceedings, but we should push the electronic tagging issue.

The Convener: Yes. Obviously, our report will be on the regulations, but I am sure that we can find a way of drafting a sentence or two in it that flags up our awareness of the pending changes. We shall write to the cabinet secretary and discuss a draft report at our next meeting, in February. It is clear that members do not wish to take further evidence.

Do members agree not to make any recommendation on SSI 2007/559?

Members indicated agreement.

The Convener: Do members agree to discuss the draft report in private on 6 February, as is our normal procedure?

Members indicated agreement.

Mike Rumbles (West Aberdeenshire and Kincardine) (LD): Convener, I apologise for my late arrival.

The Convener: That is okay. You are let off.

No issues have been raised in connection with SSI 2007/577. Do members agree not to make any recommendation on it?

Members indicated agreement.

European Union Scrutiny

10:30

The Convener: For agenda item 4, paper RAE/S3/08/2/6 provides a quarterly update on European developments. I invite members to note the paper and to flag up issues on which they would like more information.

John Scott: I would like more information in relation to paragraph 10, which mentions the agriculture and fisheries council meeting on 21 and 22 January—the minister might have alluded to that earlier—at which the common agricultural policy health check was discussed. We need to keep a close eye on that.

Paragraph 8 says that Commissioner Fischer Boel has

“told MEPs that ‘it goes without saying’ that those Member States applying voluntary modulation—the UK and Portugal—would need to reduce the applied rate of this mechanism as the rate of compulsory modulation increases”.

We need to keep that under constant review, too.

Des McNulty: I am interested in the maritime green paper.

The Convener: That is germane to much of what is happening.

Des McNulty: Yes. That green paper or information about it should be distributed to committee members.

The Convener: Did I see another finger go up? I did not, so that is it for the paper.

Flooding and Flood Management Inquiry

10:31

The Convener: Agenda item 5 is further evidence taking in our flooding and flood management inquiry. Our first witness is Professor David Crichton. We have allocated roughly 50 minutes for his evidence, which should therefore run until about 11:25, because we have a second set of witnesses.

I do not know whether Professor Crichton wishes to make an opening statement. If so, I ask him to keep it to within five minutes, to allow the maximum time for questions.

Professor David Crichton (Benfield UCL Hazard Research Centre): If you do not mind, I have not so much an opening statement as a piece of news that is relevant to the committee. The insurance industry signed a statement of principles with the Westminster Government that says that it will maintain flood cover, subject to some conditions. Such conditions have always depended on action by the Government in England, so insurance in Scotland depends on England taking flood management measures. I have always felt that that is inequitable, particularly as the Association of British Insurers has never acknowledged that Scotland is different.

I have strenuously lobbied the association and some major insurance companies on that in the run-up to the opening of negotiations on a revised statement of principles, which start tomorrow with the Department for Environment, Food and Rural Affairs and the Department for Communities and Local Government. I cannot tell the committee the outcome of my lobbying activities until the statement is made public, but I am optimistic that a change will be made and that the ABI will acknowledge that Scotland is different and is managing flooding much better than England is. Members will be able to find out about that when the association gives oral evidence in March. I recommend that, if the association has not negotiated something special for Scotland by then, members give it a hard time.

The Convener: Thank you—that is quite useful.

We move to questions. We wish to raise several issues and members have indicated the subjects in which they are most interested. We will start with the broad question of the impact of climate change.

Jamie Hepburn: I thank Professor Crichton for giving evidence. My constituency of Central Scotland covers part of the Firth of Forth, so I was interested to read what you said about that. My

question is about the impact of environmental change on that area.

The Met Office gave evidence to the committee that the risk of coastal flooding was greater in the southern North Sea than around the coast of Scotland. Does that tie in with your warnings of a storm surge in the Firth of Forth? In your opinion, what serious assessment has been made of the level of risk of coastal flooding along the Forth?

Professor Crichton: That is a good question. No serious assessment of the issue has been made. The best assessment was produced by Professor Werritty for the Scottish Executive a couple of years ago, as part of the foresight programme. He predicted some quite severe impacts from flooding—not only directly from climate change, but from sea level rise and increased North Sea storm surges—all around the coast of Scotland. We are very vulnerable in the upper Forth estuary, as much of our national infrastructure is below the 5m contour. We are facing a sea level rise of as much as 1m—perhaps even 2m—in the next 100 years. Combined with a spring high tide and a storm surge, that is quite worrying. There has already been a North Sea storm surge of 5m, which no one thought was possible. That was further south, in Denmark, but the prognosis is that storm surges will increase.

We should look not just to the Met Office, excellent though it is. There are other sources of data, from other experts. I am thinking particularly of the prediction of regional scenarios and uncertainties for defining European climate change risks and effects—PRUDENCE—project, which involves the top nine universities in Europe with expertise in climate change and is predicting major increases in North Sea surges. It is worth at least considering what the impact of a 5m surge at high tide in the Forth estuary would be.

Jamie Hepburn: You touched on my supplementary question in your initial answer. In your written submission, you usefully illustrated which places along the Firth of Forth could be affected. You have mentioned that much of our national infrastructure is located in and around the area, especially around Grangemouth. Can you quantify the effects of a storm surge and coastal flooding in and around that area? What would be the costs to the national economy? Are residential areas in and around Grangemouth in just as much danger? Grangemouth is in the area that I represent, but I have not heard many people talk about the issue. How aware are people of the potential danger?

Professor Crichton: I must be careful, as I could pluck a figure out of the air that would probably make the press headlines tomorrow. I do not want to do that. Your guess is as good as mine.

Jamie Hepburn: I am not so sure about that.

Professor Crichton: We are talking about 5,000 houses.

The Convener: We think that your guess may be better than ours.

Bill Wilson: We are fairly confident about that.

Professor Crichton: Around 5,000 houses and 40 per cent of the UK's—not just Scotland's—oil and gas treatment facilities would be affected. Longannet, the biggest coal-fired power station in the UK and one of the biggest in Europe, is also in the area. Scottish Power would be much better qualified to tell the committee what the cost of Longannet closing for a year and the effects of such a closure on electricity supply would be. You could ask Asda about the effects of its distribution hub being out of action for a year, so that food and household goods could no longer get to Asda shops. That would have a long-term, knock-on effect on businesses and the public good. It is said that at any time we are only three square meals away from anarchy, because of the short storage period in modern supermarkets, which do not have big warehouses. It would be well worth our making a small investment in some proper economic research into the impacts of a North Sea surge. Of course, one worry is that considering only cost benefits for the Falkirk Council area will not reflect the costs of flooding in the whole of Scotland.

John Scott: On the 5m flood surges that you referred to, do you agree that there is a funnelling effect in the North Sea that makes them more likely to happen in the Thames estuary, for example, than in the Forth?

Professor Crichton: Yes. A flood surge in the Forth would be less severe than a surge in the Thames. On the other hand, there would be much less warning about a surge in the Forth. There is 17 hours' warning for the Thames, but only about four or five hours' warning for the Forth.

John Scott: Forgive me for not knowing this, but why is there a difference?

Professor Crichton: The funnelling effect is caused by surges moving from north to south that are identified by measuring stations in the north of Scotland, and it takes 17 hours for the surges to travel from the far north to the Thames. That gives 17 hours to save lives, evacuate and so on.

The Convener: A railway journey from the north of Scotland to the Thames takes about the same time.

Peter Peacock: Professor Crichton said that the potential flooding situation in the Forth estuary is contingent on tidal—

The Convener: Can we use the word “firth”, please?

Peter Peacock: Sorry?

The Convener: Can we use the word “firth”?

Peter Peacock: Okay.

Professor, you said that the potential flooding situation is contingent not only on a tidal surge and storm conditions but on an overall 1m to 2m rise in sea level. Perhaps we should try to keep all this in perspective. I realise that there is a risk, but are we talking about a one in 200-year risk, a one in 500-year risk or a risk that is simply unquantifiable?

Professor Crichton: To be frank, I do not know. I suppose that what I am saying is that such an event will cause so much damage that it will average out over each year of the return period at a substantial amount.

Of course, there is also the risk of pollution. There have been two major pollution incidents in the firth in the past couple of years, and we now have the prospect of ship-to-ship oil transfers. My proposals could also help to contain pollution damage.

The Convener: Does the logic of the further north you go, the lower the risk but the shorter the warning also apply to the Firth of Tay, the Moray Firth and the other firths?

Professor Crichton: I do not know whether you have looked at the risk triangle that is set out in my supplementary evidence, but it illustrates that if you are very vulnerable or exposed, the risk is higher, even if the hazard is the same. In the Firth of Forth, for example, there is very high exposure of very vulnerable infrastructure, which means that the risk of a given hazard is higher. To a lesser extent, the same is true of the Clyde, but the Forth is the major concern.

John Scott: With regard to flood defences on the Firth of Forth, you have suggested that a barrage and bridge should be erected. Only recently, the Government's proposal for the location of a new Forth bridge met with universal approval in the Parliament. Given the implications of flooding in the area west of where your proposed barrage and bridge would be sited, are you suggesting that that decision should be reconsidered?

10:45

Professor Crichton: I would not presume to suggest that. However, none of the papers produced in the run-up to the decision on the new Forth crossing mentions flood risk or climate change. That is a perfect example of silo thinking. Thought has been given only to a crossing, and

not to the opportunities that the huge investment in that crossing could create for managing climate change adaptation or flood risk.

The merit of my suggestion about having a causeway upstream of Rosyth is that a high bridge would not be necessary. That is not the case downstream of Rosyth, where a high bridge would be necessary, because big ships come into Rosyth. The ships that come into Grangemouth are much less tall, so a high bridge would not be necessary. In addition, a causeway would be cheaper to build than a bridge, particularly as the 4,000 tonnes of waste from Longannet power station that are dumped in the river every day could be used in its construction.

Jamie Hepburn: I have a quick supplementary. You suggested that a wider study of the economic implications of such a surge on Grangemouth and the wider Firth of Forth area would be useful. As far as you are aware, has any such study ever been undertaken?

Professor Crichton: Not as far as I am aware.

The Convener: Bill Wilson wants to address issues around the existing legislation and the proposals thereon.

Bill Wilson: I echo Jamie Hepburn's thanks for Professor Crichton's submission, which I am sure we would all agree has made fascinating reading. In it, you suggest that there should be a flood commissioner, who would have overall responsibility for flood risk management. Other evidence that we have received has suggested that the Scottish Environment Protection Agency could have overall responsibility, as could—conceivably—the Scottish Government. Is there a particular reason why you favour a flood commissioner over the other options?

Professor Crichton: Yes, I have two reasons for doing so. In its submission, Aberdeenshire Council makes a strong case for local authorities continuing to have a major role in flood management. It might be biased, of course, but I agree with its position, for the reasons that are listed in my evidence. Local authorities are the bodies that decide planning applications, so they are the ones that should have the headache of defending against flooding.

The Association of British Insurers made the point to the Pitt inquiry into the flooding in the summer of 2007 that there should be a unified body in charge of flood management. Interestingly, it has said exactly the same thing in its submission to the committee's inquiry, with “Environment Agency” changed to “SEPA”—it obviously spent a lot of time thinking about the issue. The situation in Scotland is very different from the one in England, where 600 bodies deal with flood management. The equivalent number in Scotland is 32.

My second reason is to do with the fact that SEPA has an unenviable conflict of interest, which it never talks about, but which it is important that the committee understands. Under the Water Environment and Water Services (Scotland) Act 2003, it is the lead authority for implementing the water framework directive, the main intention of which is to prevent the modification of rivers and lochs. I have made the argument to the European Union that, with climate change, that position is unsustainable. We will have to modify rivers and lochs to take into account increased flows.

I do not know whether members have had a chance to look at the annex to SEPA's submission, but it contains an excellent chart that shows the increases in mean annual flows in Scottish rivers over the past 50 years. In some cases, the figure has risen by 50 per cent. That can be down only to climate change, which is leading to more severe rainfall events. Fifty years ago, 15 per cent of our winter rainfall occurred in three-day events. Now, 30 per cent of our winter rainfall occurs in three-day events. We are getting much more severe rainfall events and our rivers need to be modified to take account of that. Even, dare I say it, dredging—the dread D word—needs to be considered.

SEPA has commitments under the water framework directive to object to any changes to or modifications of rivers, especially dredging in places such as the River Nith—that would stop flooding in Dumfries but, because it would upset a few freshwater mussels, it cannot be done. SEPA has a huge conflict of interest. It is concerned with water quality and, if you told it that it was also concerned with flooding, there would be internal arguments. That is something that you might want to put to representatives of SEPA—I am sure that they will deny it, but you see it in practice all the time.

There has to be someone who is above SEPA who can sort out the internal wranglings and disputes between local authorities while, generally, leaving local authorities to do what they do well with regard to the management of the local flood risk. A flood commissioner is essential if we are concerned about the national interest and ensuring that local authorities are all singing from the same hymn sheet. I am afraid that, at the moment, some local authorities are not.

Bill Wilson: You describe some flood liaison and advice groups as very successful and others as a little less successful. Could you contrast the features of the successful and the unsuccessful FLAGs?

Professor Crichton: Did I actually use the word “successful”? If so, I did not intend to.

Bill Wilson: You might not have used that exact word, but you noted that some FLAGs were more effective than others.

Professor Crichton: It depends on when you look at them. Some FLAGs are dormant, it has to be said. However, they have reached a stage of maturity. Many councils established a FLAG to help them to develop their structure plans and, after they had done that and the plans had been agreed with ministers, they did not see the need to continue with their FLAG. That does not mean that those FLAGs have not been successful; it means that they did their job successfully. Other councils have maintained FLAGs, particularly councils that know that they have an on-going flood problem, such as Clackmannanshire Council, Falkirk Council and Aberdeenshire Council. Sometimes, the effectiveness of a FLAG is down to changes in personnel. For example, someone in a council might have retired and his replacement might not have got around to re-establishing the FLAG. I do not want to name names.

The picture is patchy. However, where FLAGs have been in place, they have been 100 per cent successful; it is just that, once they have done their immediate job, they are sometimes allowed to become dormant. The Scottish Government could do a great deal to encourage councils to resurrect those FLAGs and to encourage the FLAGs to continue to meet and to publish minutes.

Bill Wilson: On page 2 of your evidence, you talk about a flood control system that was provided with funding although it did not meet minimum standards. Are you suggesting that the FLAGs might have a role in determining minimum standards and ensuring that funding is not provided until those minimum standards are met, or am I reading between the lines incorrectly?

Professor Crichton: I think that you are reading between the lines incorrectly. The Scottish Government's minimum standards involve a 100-year return period and taking into account climate change to 2050. Those are reasonable standards for grant aid. In the case in question, the Scottish Government gave grant aid for a defence that did not meet those standards. The reason for that breach of guidelines is something that should be taken up with the relevant civil servants.

This is an easy point to argue with hindsight, but it could well be that, if that proposed defence had been discussed by the FLAG, some expert people, rather than a desk-bound civil servant in a local authority, would have examined the details of the defence. I would hope that those experts would have highlighted the changes in upstream hydrology that resulted in the work that was carried out being possibly misleading.

Bill Wilson: I presume—if I understand you correctly—that FLAGS could have a role in ensuring that such errors were not made.

Professor Crichton: Yes. They provide a cost-effective way of double-checking that the local authority is doing the right thing.

The Convener: Am I right in assuming that the example that is being referred to is Milnathort?

Professor Crichton: I would rather not say publicly.

Bill Wilson: I was avoiding asking that question.

I am not sure where this final short question fits in, so I will ask it now. Would it be reasonable to insist that developers of new developments tell people prior to purchase what the flood risk is, including the predicted flood risk due to global warming?

Professor Crichton: That would be very reasonable. In fact, the Scottish Government's previous national planning policy guideline on flooding—NPPG 7—specifically stated that, if the development was on a flood plain, the developer had to erect notices stating what the flood risk was, so that prospective buyers could immediately see the flood risk. However, that disappeared when the guidelines changed and Scottish planning policy 7 was introduced. The requirement was perhaps not terribly practical. I know that a similar rule exists in Australia, but the first thing that Australians do when they plan to sell their house is drive their car over the notice so that prospective buyers do not see it. A more practical method might be to require such notices to be displayed in nearby shopping centres so that anyone can see them without needing access to the internet.

Bill Wilson: Presumably, when the title deeds are being discussed, the owner could be required to pass a note stating what the flood risk of the property was and the purchaser could be required to sign that they had seen the note.

Professor Crichton: Yes. That is what happens in Shetland and there is a lot to be said for that approach. The law is a rather strange thing, in that anyone who sells a property in a flood-risk area is not obliged to volunteer that information. However, if purchasers ask whether the property is in a flood-risk area, the seller—or the seller's estate agent or lawyer—is obliged to tell them.

The Convener: Sweeping up that part of your evidence, I want to ask whether, strategically, a flood commissioner is the best way forward. Is that your view?

Professor Crichton: Yes. I know that others share that view. I am not volunteering for the job, but it seems to me that having a flood

commissioner is the way ahead. We need someone who can spread best practice and who can negotiate with insurers.

The Convener: Your submission mentions the insurance template and issues with the implementation of SPP 7. Is SPP 7 being implemented effectively? Is the insurance template being followed? Are developments on which the impact of flooding would be greatest—schools, old people's nursing homes and various bits of infrastructure that perhaps present the greatest vulnerabilities—being built in risk areas?

Professor Crichton: It is a concern that SPP 7 is not followed consistently by every local authority. Two local authorities in particular do not follow SPP 7. I would rather not reveal which authorities those are, but one of them will give oral evidence later in the committee's inquiry.

I understand that that particular authority has granted planning permission for the construction of a disabled children's home right in the middle of a flood plain. I cannot imagine anything more vulnerable than a home for disabled children—except, perhaps, a home for blind people. The authority is demanding that the Scottish Government give it very large sums of money to build flood defences for all the properties that it is building on the flood plain. Its demands amount to almost the entire annual budget for flood defences of the Scottish Government. To me, it seems a little bit selfish that that authority would deprive every other council of any money at all for flood defences.

11:00

The Convener: I can see Peter Peacock beginning to twitch.

Professor Crichton: Apart from those two authorities, councils are generally good at following SPP 7. Independent research by the University of Leeds has found that all the other councils have adopted some or all of the insurance template, which is excellent news. As time has gone on, property developers in those areas have disposed of their land banks in flood plain areas, so there has been less and less pressure on councils to allow properties to be built on flood plains. There has been a virtuous circle, which is good news.

The Convener: So, you feel that, in most areas, there is decreasing pressure from the developers vis-à-vis flood plains.

Professor Crichton: Yes.

The Convener: You should be aware that we have started a separate inquiry into affordable rural housing in Scotland. There are some cross-

over issues around the availability of sites for building, and so on.

Let us move on to some of the issues regarding hard and soft engineering.

Des McNulty: You say in your written evidence that there has been a significant shift from relying on hard flood management measures to relying more greatly on soft measures, especially sustainable urban drainage systems and the other developments that have been legislated for relatively recently. You point out that the SUDS arrangements in Scotland are better than the equivalent arrangements in England because responsibility is more clearly identified between Scottish Water and the developers. How far can we go with the shift from hard to soft engineering solutions? Where does the correct balance lie between those two approaches? They overlap to some extent and exist in combination, but how far would you want to go with that approach?

Professor Crichton: That is a good and a difficult question. It will depend entirely on the circumstances. As I say in my written submission, what is really needed is a pragmatic approach to each situation. There is no doubt that, in some cases, hard engineered defences will be needed because of the historical situation of developers having built on flood plains. If we were starting with a clean sheet, we would probably not put Grangemouth where it is; however, given that it is there, we must defend it.

This is a very difficult issue for legislators. Legislators like to have everything cut and dried and precise, but flood management is very much a case of considering the options and choosing the most sustainable solution, which will be different in almost every case. A flood commissioner could be valuable in interpreting the legislation in a sustainable way. Sometimes, the solution will be abandonment and relocation; sometimes, it will be natural flood management upstream; sometimes, it will be forestry practices.

I take this opportunity to praise the Forestry Commission for the work that it is doing on the strategies and actions for flood emergency risk management—SAFER—project, which has the support of the Scottish Government. It is working very closely with the Governments in Germany and the Republic of Ireland to develop forestry practices that reduce flood risk.

Much can be done. It is a case of looking at the situation in the round and seeing what is best in the circumstances.

John Scott: Will you expand on sustainable flood management solutions, through good agricultural practice and forestry, elsewhere in the world? We share the view that such solutions might be best practice, and might also be a

cheaper method of sustainable flood management. We are keen to know as much about them as possible.

Professor Crichton: Certainly. I believe that some of you toured the River Devon demonstration site.

The Convener: We did.

Professor Crichton: WWF Scotland said that it has been shown to be 10 times more cost effective for flood management than hard defences, which is very significant.

John Scott: Can you cite the reference for that?

Professor Crichton: That is from “Slowing the Flow” by WWF Scotland. It is on the internet. WWF Scotland probably gave you a copy on your visit.

The Convener: I am sure that it will have. So you are saying that WWF Scotland's assessment and calculations of the cost look like they are accurate.

Professor Crichton: They are certainly in line with assessments that have been carried out elsewhere. The Royal Academy of Engineering did an assessment.

The Convener: So there is independent corroboration of the figures.

Professor Crichton: Yes. Soft solutions were found to be much more cost effective than hard solutions.

It has to be said that soft solutions are not an absolute guarantee of safety—they simply cut out the most frequent floods—but we could say the same of hard solutions.

For many years, Japan has spent vast sums of money on hard defences. Even during the war, the Japanese spent 10 times as much on flood defences as England spends now, as a percentage of gross domestic product. In 2006, they decided that that approach was not working. They were spending an unlimited amount of money on concrete and were still getting flooded. In fact, half the cost of floods went on repairs to the concrete. Therefore, the Japanese decided to stop putting down concrete and switch to natural and sustainable flood management, because it is more cost effective.

The people who argue that we should spend more and more money on hard flood defences should bear in mind the fact that, no matter how much we spend on them, we will still be flooded. Only by taking an holistic, catchment-based approach—in particular by avoiding building on flood plains—can we make a sustainable improvement.

The Convener: We need to move on to the people who went on the Glasgow visit, because concern about pluvial flooding arose from that.

Jamie Hepburn: It did indeed, convener. I was one of the visitors to Glasgow and during the visit the city's problems with burns, rivers and inadequate culverts and sewers were demonstrated to us. At a meeting with Scottish Enterprise on Friday, we were told that rivers are flowing into pipes that are smaller than the watercourse from which the water is coming, which would lead to problems.

Professor Crichton, your paper suggests that Scottish Water's sewers are designed to cope with one in 30-year flooding events when they should be designed to cope with one in 100-year flooding events. That would have obvious cost implications. Do you have any idea of what those costs would be, how we could meet them and how they would compare to the potential costs of not acting?

Professor Crichton: I would not presume to tell Scottish Water how to do its job. However, my submission points out that the courts in Norway have said that if a flood is within the 100-year return period, the water authority must pay compensation for any flooding. Insurance companies in Norway have claimed successfully from the water company for floods that are greater than the 30-year return period, right up to the 100-year return period. I just flagged that up to ask why, if that can happen in Norway, it cannot happen in Scotland. Perhaps at some point the Scottish courts will take the same view, in which case Scottish Water should perhaps look ahead. That may not happen for another 10 or 20 years, but when drains or sewers are built, they are meant to last a bit longer than that. Perhaps future drains and sewers should be designed for the 100-year event, particularly taking climate change into account.

Jamie Hepburn: So you are suggesting that future infrastructure, rather than existing infrastructure, must be designed in a particular way.

Professor Crichton: Primarily, yes, although the sooner we start, the better.

Bill Wilson: Scottish Water's evidence suggests that it is building SUDS pools to deal with one in 30-year floods. What would be the extra cost of building pools to deal with one in 100-year floods? If the sewers that serve the pools are designed to deal with only one in 30-year floods, would it still be worth building SUDS pools that can deal with one in 100-year floods?

Professor Crichton: The FLAGs have said that they accept that Scottish Water does not want to put a lot of money into measures such as detention basins, but that planners can do

something by carrying out a drainage impact assessment. The north-east Scotland FLAG wrote a drainage impact assessment guideline, which won an award for good practice and which SEPA has subsequently taken on board and published on its website. That drainage impact assessment states that property should not be built if it could be flooded by a 200-year event. It is accepted that SUDS ponds may overflow, but there should be designs to ensure that the overflow does not get into properties. It is a sort of compromise.

Insurance companies support that. They have said that if they accept a risk of floods from a SUDS pond, they will sue whomever they can to recover the money. They are obliged to do so to protect their shareholders. That is assuming that an insurance company will insure the property in the first place. Half of insurance companies have said that they will not insure properties that are close to SUDS ponds. The situation is probably a moveable feast, because much of the reason for that is the fact that nobody has taken the trouble to educate insurance companies about what the SUDS is all about—except for me, and I have done only a limited job.

Jamie Hepburn: I have a quick follow-up question. I presume that you are saying that there is no real danger to a house that is located near a SUDS pond.

Professor Crichton: That is what I am saying. I do not want the public to start worrying about being flooded from a SUDS pond, at least in Scotland, because SUDS ponds are being installed responsibly and well in Scotland. The situation in England is rather different. There, there are examples of SUDS ponds being used irresponsibly, because they have the magic S-word—sustainable—which seems to give some authorities the excuse to build anything anywhere.

11:15

The Convener: In the conversation that we had about storm surges in the Firth of Forth, you alluded to some of the knock-on effects that flooding would have on matters such as food distribution. In your evidence you argue strongly that any analysis of the impact of flooding should include consideration of the impact on people's physical and mental health, instead of being a rather narrow cost benefit analysis, which is what we get at present. Will you comment on the impact on people's health? Some of us attended the Scottish Government's one-day flooding seminar at the beginning of November. The evidence that we heard about the almost post-traumatic impact of flooding was most compelling.

Professor Crichton: Certainly, that is very important. I know that you have expressed an

interest in the work of the Samaritans and I pay tribute to them for the work that they do to help flood survivors. They have volunteers who are specially trained to help flood survivors and who do a tremendous job. That work was particularly noticeable in Perth in 1993.

The University of Dundee has carried out a study for the Scottish Government on some of the intangible impacts of flooding. It has found, for example, that the loss of sentimental items such as photographs can have a much more devastating effect than the loss of tangible property, yet it is almost impossible to quantify the cost of that. Perhaps it can be quantified in terms of loss of labour or the cost to the health service of dealing with people's mental health problems. There is no easy answer.

A step in the right direction would be to quantify the tangibles a bit better than we do at present. It is ironic that Victoria Quay still uses the Middlesex University tables to consider flood damage costs, given that those tables are based on a very small sample of English data and that the tables from the University of Dundee—which is just down the road—are the biggest database in the world of flood damage costs and cover not just tangibles but consequential losses. However, Victoria Quay refuses to take those data into account. The Dundee tables show Scottish, English and Welsh flood losses. I am perhaps the only person who can make the comparison, because I am the only person who is affiliated to both Middlesex University and the University of Dundee, so I can compare the two sets of tables more readily than anyone else can.

The Convener: That is very interesting.

I will move on, because I am conscious that we are pressed for time, although we are getting through quite a lot of the questions that we wanted to ask. You have talked about insurance. The options that you have proposed would raise issues. We have talked about abandonment and change of use, but we have not talked about what you call resilient reinstatement or the internal rearrangement of buildings, which seems quite a narrow issue but might have quite a big impact. What would those things cost? Would the costs be passed on by the insurer to the policyholder, which would mean that ordinary people would always end up paying? Has the insurance industry expressed an attitude towards those proposed solutions? We have all seen examples of abandonment, particularly as a result of coastal erosion, and change of use is becoming more common. Some of the other things might be harder for us to envisage. Will you take us through them and tell us about the insurance companies' responses?

Professor Crichton: That is a big question.

The Convener: I know.

Professor Crichton: Change of use has already happened in many parts of England, such as Shrewsbury, where there is a problem with car parking. People have decided to whip out everything on the ground floor of a building, such as kitchen appliances, and turn the ground floor into a garage. That has been very successful and might well be successful in urban areas in Scotland. When houses are built in places such as London docklands and the Thames gateway area, the ground floor is used only for car parking as a matter of course. You can also see that approach in the quayside development in Dundee where the ground floors of all the new houses are reserved for car parking. Insurers could fund that, as they could fund resilient reinstatement.

Insurers are concerned that there must be a level playing field. They issue what is called a policy of indemnity, which means that you should be no better off after making a claim than you were before. Anything better comes under a betterment policy, which they are reluctant to issue. However, there is a precedent with fire regulations, which require that if you reinstate a building after a fire, it must be reinstated to the current fire regulations standard, not to the standard of the regulations when the building was built. Insurers are used to dealing with such situations and everything is absorbed into the premium. They could do exactly the same with flood resilient reinstatement. I have spoken to all the major insurers and they have said that they would be happy to do that as long as there is a level playing field. They would try to absorb premium increases, although there would be modest premium increases in the short term. In the longer term, however, because flood claim costs would fall, the premium increases would reduce and eventually turn into reductions. It is a long-term strategy.

The sooner we start addressing the problems with climate change, the better. It has been argued that the far-sightedness of the Scottish Government in introducing the concept of sustainable development to the Building (Scotland) Act 2003 means that the primary legislation already exists to tackle the problem. All that is needed is for the Scottish Building Standards Agency to implement it. The agency might disagree with that, but when it was established, it said that it would do it and it has let it slip. Have I answered your questions?

The Convener: That was very helpful. John Scott wishes to ask a particular question in this general area.

John Scott: Professor Crichton, you spoke about reservoirs. Will you comment on Scottish Water, as well other owners of reservoirs, and the

apparent secrecy around the risk of reservoirs failing?

For the avoidance of doubt, do you recommend that SPP 7 should be modified and that instead of having a one in 30-year planning timescale we should have a one in 100-year planning timescale?

Professor Crichton: I will speak about reservoirs first. I make it clear that I am not saying that any reservoirs in Scotland are unsafe; I am saying that I do not know whether any reservoirs in Scotland are unsafe. Even if I did know, I would not know who was at risk because the dam break inundation maps are secret. They are secret because of national security, which makes them an exception under the Freedom of Information (Scotland) Act 2002.

As far as I can make out, because of national security, we cannot tell the police which areas would be flooded if the dams broke. That seems to imply that our police force would immediately go off and tell the terrorists where the dams would damage property. Can our police not be trusted with national security? I do not know. The same applies to our fire and rescue services, our emergency planners and our land use planning officers. They cannot be trusted with the information because of national security. Are we saying that our fire and rescue services would immediately go off and give terrorists the information? Are we saying that terrorists cannot tell where the dams are? They are big and are hard to hide. Someone only has to drive through the country to spot them or look at an Ordnance Survey map to see where they are. Terrorists could create their own dam break inundation maps thanks to an EU project that has developed computer software that is much more user-friendly than ever before and can be downloaded off the internet.

Therefore, a terrorist could find out all the necessary information, but the local police cannot get it—not to mention the local insurance company. I spent 30 years in insurance and I was always taught that if someone does not give you the information that you need to underwrite a risk, you assume the worst. If you are writing someone motor insurance and ask, “Have you had any convictions?” and they say, “I’m not telling you,” you assume that they have had the book thrown at them and underwrite accordingly.

I am suggesting that such secrecy is an issue, and it is becoming a live issue because, according to the Environment Agency, the maps will be published in England and Wales in 2009, but they will not be published in Scotland. When the maps are published in England and Wales, insurers will start to look at them closely and ask, “Why are there none in Scotland?” given that the biggest

owner of reservoirs in the whole of the UK is Scottish Water, and Scottish Water steadfastly refuses to publish its maps.

I mentioned in my submission that in one case an emergency planning officer managed to get a look at the dam break inundation map and discovered that the local town hall, which he had designated as the emergency shelter in the event of a flood, was right in the middle of the dam break inundation area. One wonders how many similar cases there are. I am aware of one local authority that is planning a new hospital and a school in the middle of the dam break inundation map, and already has two sheltered housing complexes there. We need to think about what we are doing and review why there is such a need for secrecy.

I will now address your second point—sorry for being long winded. I do not recall SPP 7 referring to 30 years. It refers to 100 years and 200 years in the risk framework. The risk framework is closely allied with the insurance template—we can perhaps discuss that later.

Peter Peacock: I have two questions on insurance that relate to your written submission and to your comments at the beginning of your evidence today. You said that the insurance industry agreed in a deal with the UK Government that it will stick with insuring properties that are potentially vulnerable on condition that risk does not exceed the 75-year return period and that certain works are completed within five years. In arriving at that view and in the renegotiations, which you indicated will start tomorrow, does the insurance industry take a clear view that it is in part the investment strategies of Government and local authorities that will determine whether the industry will continue to stick with insuring properties or will pull back? Is there a connection between government investment and the insurance industry’s current disposition? Is that likely to be maintained during the negotiations?

I am also interested in what you said about how the insurance industry looks at Scotland in a particular way, but often based on English evidence. The situation is not clear to me. Is a local view taken within Scotland about insurance risks? For example, do you look at Hawick, which has had certain flooding events, Perth, or Forres as a local market, or is Scotland treated as one? Is there a local investment consideration by insurance companies as well as a national Scottish investment strategy consideration?

11:30

Professor Crichton: That is an excellent question. It is hard to answer it simply, as it raises many issues.

I do not know whether the link between investment in hard defences and insurance availability is likely to be maintained—that will be decided in the negotiations that start tomorrow. I have done my best to persuade the Association of British Insurers that soft defences should be taken into account and that Scotland should be treated separately. I am optimistic that my voice has been heard, but who can say what the outcome will be? Since 2002, the statement of principles has included a firm link between availability of insurance and adequate spending on flood defences.

Insurance is a competitive business. There are more than 400 insurers in Britain, and there are strict competition laws that prevent any agreement not to offer insurance in a given area. There will always be an insurer who is prepared to offer insurance. The corollary of that is in the statement of principles, which says that the ABI will use its best endeavours to enable insurance to be found in any area where the return period is less than 75 years, but such insurance may not be cheap. In the worst-case scenario—if someone cannot get insurance, and the return period is less than 75 years—they can seek help from the ABI, which will try to find them an insurer. That is not in breach of competition rules, but it is unlikely that insurers will say that a market is out and they will not cover it.

I am not saying that such insurance will be affordable. Who knows what will happen not just in five or 10 years, but in 30 years? Given the way in which some insurance premiums are increasing, it could become very difficult for people to get cover at an affordable price. There is one area in which insurers are subsidising residents by offering them insurance. As an experiment, I went to Ladbroke's and asked for a quote for a year's insurance for a property in that area. For a sum insured of £90,000, I was offered odds of 2/7, which means that the stake would be £20,000. That is the technical rate that insurers should charge for the property. Like insurers, Ladbroke's knows all about risk. It regarded the rate that it offers as fair, given the history of flooding in the area. However, if insurers started charging that rate, properties in the area would be blighted, because the owners would not be able to afford it.

Insurers have some local discretion, but generally insurance companies are big outfits. They use quotation systems that are in the computer and tend to run on a fit-or-forget basis—if something is not in the computer, it is a hassle for them to work out a special quote. Insurance premiums are still relatively low in most cases. There are specialist insurers that will take on high-risk business, but that must be paid for. There is some local initiative, but on the whole rates are decided nationally.

Peter Peacock: Your written evidence includes a number of recommendations. You recommend that Scottish Government grant for flood defences and coastal protection should be linked to SPP 7 compliance, design compliance—you cite a case in which there does not appear to have been such compliance—and FLAG involvement in the process.

As you may be aware, Government policy is being changed so that there will no longer be central support for flood and coastal defences. The money will be distributed to local authorities, and they—without any check by central Government—will be able to approve their own expenditure for flood defences. How would that work in relation to the other points that you have made about local authorities being responsible for planning and FLAGs? In a sense, they are now judge and jury in their own court on those issues. Would that policy of giving local authorities control over everything affect your thinking about how to ensure that investment has regard to SPP 7, the FLAG and design standards?

Professor Crichton: That is a good question, which you should certainly put to the spokesman for WWF Scotland when he comes in, because he has very strong views on that. My views are not quite so strong—I see it as being quite a clever move, in some ways. If you give local authorities enough rope, some of them will hang themselves, although that is perhaps rather a crude way of putting it. Local authorities are big boys—they are grown-ups, who should know what the issues are. They should be acting responsibly, and one would hope that they will, but time will tell.

From the insurance angle, insurers will sit back and watch what happens. There is an almost moral duty to say that if a local authority acts irresponsibly, it might find that the properties in its area suffer from blight as a result of being unable to obtain insurance. If insurance on a property is withdrawn, any mortgage on that property is automatically and immediately foreclosed, which a lot of people do not seem to realise. The building societies and mortgage lenders in this country apply very strictly the rule that one must have adequate insurance to get and keep a mortgage; the situation is a little bit more relaxed in some other countries. Therefore, there is not just an impact from loss of insurance but an impact from loss of mortgage and the blight that would follow.

Peter Peacock: I would like to pick up on that point.

The Convener: We need to move on—very quickly, Peter.

Peter Peacock: In that context, are you saying that the insurance industry is watching local

investment decisions in relation to any properties that it insures that are susceptible to flooding?

Professor Crichton: Yes, insurers are very much aware of what is happening with local authorities—I am certainly making sure that they are aware of that.

The Convener: You seem to suggest in your evidence that—paradoxically, despite what we are saying about insurance—there might be some home owners who are overinsured because of the discrepancy between what the insurers view as flood risk, which is one in 75 years, and the SEPA flood risk maps, which are based on one in 200 years. You seem to suggest that some home owners are paying for being in a flood risk area when, in fact, if an insurance assessment were carried out with the proper information, they would not be. Why has that discrepancy developed between SEPA and the insurance industry?

Professor Crichton: The statement of principles talks about the 75-year return period, but that is an English standard that has never been used in Scotland, so SEPA has never needed to produce 75-year maps. There is one insurance company that has 75-year maps for Scotland but, on the whole, insurance companies just use the SEPA maps, which are 200-year maps. Obviously, a 200-year flood covers a much bigger area than a 75-year flood.

The Convener: So, in England, insurers are using the 75-year maps, but in Scotland most insurers are applying the 200-year maps, just because they are what is available from SEPA?

Professor Crichton: Yes, that is right.

The Convener: So the implication is that there will be people who are overinsured in Scotland.

Professor Crichton: I would not call it overinsured—some people will be paying extra for their insurance simply because their homes are on the SEPA map. If they were in England, they would not be in an area covered by a 75-year map.

The Convener: It is because the insurers operate to the English standard and SEPA has not adopted that standard.

Professor Crichton: Yes, but that may change under the flood directive, which calls for a 10-year map.

John Scott: You said that the University of Dundee has information from 25 leading insurance companies on this subject but that the Scottish Government is not benefiting from that knowledge. Would you care to explore that as a discussion point?

Professor Crichton: Yes. That is not about mapping; it is about estimating the cost of flood damage claims by using 28 different variables.

The Convener: That was what we discussed earlier.

Professor Crichton: Yes. Victoria Quay is well aware of the existence of that set of tables, which have been used by the National Audit Office, for example, to monitor how well the Environment Agency is doing. However, Victoria Quay refuses to use the tables.

The Convener: Thank you, Professor Crichton. I have not picked up that the committee has particular points that I can formally advise you we will write to you about, but we never preclude that possibility. Equally, after you leave, if you wish that you had explained X or whatever to us, please feel free to get in touch with us.

Professor Crichton: Thank you.

The Convener: I suspend the meeting for a couple of minutes to allow for the changeover of witnesses and a quick comfort break.

11:41

Meeting suspended.

11:45

On resuming—

The Convener: I welcome the witnesses from Scottish Water. I am sorry that we are running slightly late, but I appreciate that you listened to the previous witness. You will understand that we wanted to allow that to go on until we had got all our points in.

I welcome Ronnie Mercer, the chair of Scottish Water, Jim Conlin, the environmental regulation manager, and Mark Dickson, the general manager of customer services. I understand that Ronnie Mercer is also a member of Water UK's flooding review group and would like to make a brief opening statement. We are trying to keep this to a minimum, so although you were told that you had a maximum of five minutes for your statement, it would be great if you could cut it down.

Ronnie Mercer (Scottish Water): Okay. I can cut out the introduction for a start.

I thank the committee for giving Scottish Water the opportunity to contribute to the debate on flooding. As you will know, the Scottish ministers set out objectives from April 2006 to March 2014, which spreads over two four-year regulatory periods. The Water Industry Commission for Scotland sets the financial framework within which we must achieve those objectives, which include an objective to reduce the number of properties at

risk from sewer flooding. Where we are required to invest in new or enhanced water and sewerage assets to meet legislative requirements, the drinking water quality regulator and SEPA convert ministers' objectives into specific outputs that Scottish Water is obliged to deliver—that is how the system works.

I thought that, as an introduction to our evidence today, it would be useful for the committee to have an explanation of our duties and responsibilities in terms of drainage and sewerage, and of what sewer flooding means to Scottish Water. Our duty is to provide public sewers and to drain areas effectually of domestic sewage, surface water and trade effluent.

Surface water is strictly defined in the Sewerage (Scotland) Act 1968 as

“the run-off of rainwater from roofs and any paved ground surface within the curtilage of premises”.

The 1968 act allows Scottish Water to enter into agreements with roads authorities for shared drainage, but it makes no mention of land drainage or flooding.

The committee has just heard about the UK water industry standards for sewerage systems: protecting properties from the risk of being flooded internally, due to lack of sewer capacity, more than once in 10 years; and designing new sewers to deal with flooding that occurs once in 30 years. The Scottish ministers' objective of reducing the number of properties at risk is based on those standards. We hold a register of all properties that are connected to sewers of inadequate capacity, of which there were 1,603 in March 2006. We intend to remove at least 456 properties from that register between 2006 and 2010. We are also working to improve our response to other problems, such as blockages and collapses.

We recognise that sewer flooding is a particularly traumatic experience, so we operate a flood care scheme for those who are affected. As part of that, if a customer's property is flooded, we give them a named contact who keeps in touch with them to offer help and advice during that difficult time. Our representative will ensure that clean-up operations are organised. They will also help customers to liaise with their insurance company. We always advise customers to claim through their own insurance in the first instance because insurance companies are experienced in dealing with flooding events and most policies cover new-for-old payments.

We also liaise with our customers to help them to find alternative accommodation if they have been affected by internal flooding. We work with the insured and the uninsured in those circumstances and we consider goodwill payments in extreme cases, even if Scottish Water is not at fault.

We operate a guaranteed standards scheme, which is published in our code of practice—members can read that. We attend such events as quickly as possible, usually within four hours. If it is our fault that a customer's premises have been flooded, we refund the annual waste water charge. However, there are funding issues that do not fit within the discrete circumstances that I have described—for example issues relating to when storm intensity exceeds design criteria or when overland river and sewage flooding combine and overwhelm us.

I am sure that members are aware that responsibilities for drainage and flood risk management are blurred because of the many organisations that are involved. One option is to create a single organisation that has responsibility for all surface water from when it falls from the sky to when it reaches the sea, except if it lands in our reservoirs—we have been hearing about that—or perhaps our combined sewers.

The Scottish Government believed that water and sewerage provision were so vital to the proper functioning of Scotland as a nation that it created Scottish Water, with national priorities that are set by ministers and a secure funding route. That approach was necessary to address decades of underinvestment and ensure the standardised delivery of service throughout Scotland. We can consider what is most important and work on it.

We believe that drainage and flood management are equally vital to the proper functioning of Scotland and that we will need a single national authority with national priorities, just as Scottish Water has. The proposal that SEPA should fulfil the role of competent authority under the flooding directive with other organisations as responsible authorities is logical. Funding and delivery issues would have to be adequately dealt with under such an approach. Simply saying that organisations must work together is not enough.

The Convener: You have talked quite a lot about pluvial flooding. Do you have a map or model that shows where the pluvial flooding risk areas in Scotland are? Pluvial flooding is a particularly important matter in the light of what happened in England in the summer last year. I recollect that much of what happened resulted from the failure of the infrastructure, particularly sewerage, to cope.

Ronnie Mercer: I am on a committee that is considering that. You are referring to an exceptional event that the infrastructure could not cope with.

I am sure that Jim Conlin can tell you about mapping.

Jim Conlin (Scottish Water): As our written submission says, mapping for surface water

flooding in urban areas does not exist. We do not have computer maps or models that show that areas will become overwhelmed during specific rainfall events. We say in our written submission that that area needs to be developed, and I think that SEPA's submission says that, too. The flooding in Hull was 90 per cent to do with surface water not getting into any drainage system or sewerage system. No maps or models existed to show where that water would go. As I say, the area needs to be developed.

The Convener: So we could not tell people in particular areas that the infrastructure in their area would be overwhelmed if there was a certain amount of rainfall?

Jim Conlin: No. SEPA's current flood maps show only what would happen on rivers and the coast as a result of rainfall. They do not show the effect of rainfall on the sewerage system, any land drainage system or any other drainage system.

The Convener: John Scott has a question about reservoirs.

John Scott: I asked Professor Crichton about reservoirs, the risk of dam bursts, overtopping and how climate change could add to that risk. I am interested in your views on managing and assessing that risk and what you can tell us about the information that you hold on that risk. Apparently, the risk is a matter of secrecy. We were hitherto unaware of its being so.

Ronnie Mercer: I am sure that we take good care of our reservoirs, inspect them properly and so on, but I ask Jim Conlin to give a detailed answer to your question.

Jim Conlin: There are regimes for the inspection of reservoirs that are linked with local authorities, Government panel engineers and so on. We mention in our written submission the studies that we are doing on what has recently happened in relation to possible changes to the calculations for spillways at reservoirs and dams.

A number of points were raised in Professor Crichton's evidence. We make a distinction between dam breaks and flooding that is caused by extreme weather, as those can be completely distinct issues. We share information on dam breaks and the issues from them with all category 1 responders under the Civil Contingencies Act 2004. We share such information on large, catastrophic events, but we take advice from the security services on the information that we make available in the public domain. The security services have a section that deals specifically with information on national infrastructure, and we take our advice on such issues from that section.

Professor Crichton said that maps are published in England and Wales that are not published in

Scotland. I think that there is an error there. I think that the requirement is to produce the maps, not to make the maps public. The requirement is to produce maps detailing certain information, including velocities of flow. I believe that those maps will come under the same security requirements and will be shared with, for example, category 1 responders for matters of civil contingencies but will not be made publicly available, but I am not an expert in emergency planning. It is an issue on which we can send the committee a written submission.

John Scott: I presume that, should those maps become available in England and Wales, Scottish Water would have no objection to making similar maps available to the public in Scotland, given how certain you are of all your calculations and review procedures of your dams.

Jim Conlin: We will publish them if the legislation requires us to publish that information.

The Convener: If you saw a local authority allowing a developer to build a hospital, a nursing home or a home for disabled children, for example, in an area that you knew to be downstream of a dam, and therefore vulnerable to a dam break, would you warn the authority against giving planning permission for such a building?

Jim Conlin: That is outwith my area of expertise. Our emergency planning people would deal with the requirements. Dam breaks do not happen according to any risk category—they are not one in 100-year or one in 200-year events: a dam break is a catastrophic event. I am sure that we share information with all category 1 responders, including local authorities, under the Civil Contingencies Act 2004. We tell them where our dams are and give them what information we have on them.

Bill Wilson: Can Scottish Water confirm in writing with whom it shares that information?

The Convener: If you could tell us in writing what organisations you share that information with, that would be helpful.

Jim Conlin: Certainly.

Des McNulty: I want to ask about the operation of the SUDS. Under the Water Industry (Scotland) Act 2002, Scottish Water was given responsibility for overseeing the development of SUDS—a different arrangement from what happens south of the border. We have received evidence from Professor Crichton and others that the scheme in Scotland seems to be working rather better than the schemes elsewhere. Can you comment on your experience of that and on the contribution that the mechanism for developing SUDS has had on flood management?

Ronnie Mercer: England and Wales have not adopted SUDS yet, as they still have concerns about health and safety, maintenance, fencing, and a whole load of things, but Scottish Water recently agreed to develop SUDS. One of my colleagues will talk in detail about what we want to do.

12:00

Jim Conlin: We recently published our technical manual for sustainable urban drainage systems—"Sewers for Scotland: 2nd edition"—which sets out our criteria for adopting and taking on board the maintenance and running of sustainable urban drainage systems. It is probably relevant to say that sustainable urban drainage systems cover a plethora of techniques. They are split simply into three types: source controls, site controls and regional controls.

Scottish Water sees source controls as happening upstream of its sewerage system. They could be measures within the curtilage, porous paving or permeable roads—some way of not creating run-off in the first place. Properly instituted source controls would mean that about 50 per cent of rainfall events in Scotland would generate no run-off. Those controls would be a matter for others. Scottish Water will take on what could be described as site controls—ponds and detention basins—at a development level, which we will own and maintain.

When several developments come together, regional controls might be needed to deal with water. SUDS are generally instigated for water quality reasons, but regional controls might also deal with flooding. Scottish Water would have to enter into an agreement with a local authority on them. Scottish Natural Heritage's written evidence highlights the amenity value of ponds, and regional ponds could also be amenity ponds. SUDS deal primarily with water quality, but they can ensure that a new development does not increase the downstream flooding risk.

Des McNulty: One of Scottish Water's objectives has been to separate rainwater run-off from soilage, and SUDS provide a mechanism for doing that. From the spread of SUDS in the past four or five years, have you quantified the contribution that SUDS schemes are making to keeping rainwater run-off separate from the sewerage system?

I understand that the responsibility is on developers to create SUDS ponds, which Scottish Water will adopt for maintenance. What has been your experience with developers? Have they been willing to put SUDS schemes in new developments and to operate constructively with

you to meet the standards that allow you to adopt such ponds?

Jim Conlin: The issuing of our manual and the implementation of the relevant legislation happened only at the end of last year, so we have adopted no new SUDS ponds yet. They are part 3 assets so, as with pipes under the ground, they are for the developer to put in place, after which we will take them over and pay a reasonable contribution towards the infrastructure.

As for working with developers, we have had a long consultation in the past four years—although the official consultation lasted three months—with developers and local authorities. We have worked with them in the past four years to produce the design standards for what we will take on board. That involved much interaction with developers, especially on the siting of ponds.

A major requirement that remains is to interact with local authorities. Sustainable urban drainage systems are in the first instance a planning issue, because they require land that can be drained. There is no point in having a green area at the top of a hill, because that is no use for drainage. Local authorities and developers have to be worked with.

Des McNulty: In general, are planners knowledgeable about SUDS? Do they have the requisite technical background and understanding to ensure that SUDS are in the right place, as you say? Are they aware of the contribution that SUDS can make to drainage and to the look and feel of new developments?

Jim Conlin: Yes. In general, planners are aware of SUDS schemes, although there are variations across the country. In the developments in Aberdeenshire, the Dunfermline east expansion in Fife, the Edinburgh south-east wedge and the Glasgow street drainage plan, the local authorities involved are considering the benefits of SUDS schemes, including the wider benefits such as amenity. In general, planners are aware of SUDS schemes, but planners are not drainage experts. They need drainage expertise to tell them what is required.

Jamie Hepburn: As you will have heard, Professor Crichton suggested that insurers can be somewhat reluctant to provide insurance to home owners whose homes are located near SUDS features. What assessment has Scottish Water made of the insurance implications of the use of SUDS schemes? Professor Crichton stated categorically that he believes that SUDS schemes pose no danger to houses that are located close by. Would you say the same as categorically?

Jim Conlin: Yes, I would say the same as categorically. The first time I became aware of the insurance companies' approach was when I read

Professor Crichton's submission. I believe that their approach should be the other way round—that the insurance industry should be concerned if a development does not have a sustainable urban drainage system. I think that the issue is about education. We have not previously discussed that matter with insurers, but we certainly take the point that more education is required—

Jamie Hepburn: So that point will be taken up with insurance companies?

Jim Conlin: Safety issues are taken into account. We have consulted the Health and Safety Executive about what is required to make drainage ponds safe.

The Convener: Your submission mentions that Scottish Water holds a register of properties that are connected to sewers of inadequate capacity. At present, 1,603 properties—throughout Scotland, I presume—are on that register. Your submission states that work is being carried out between 2006 and 2010 to resolve the problem for 450-odd properties, which is less than a third of the total. Why can the situation not be resolved for all 1,600 properties over that period? What constraint prevents that from happening?

Ronnie Mercer: There are one or two constraints. First, for some properties, we might be left wondering what we can do about the problem. If a £50,000 house requires a £1 million solution—

The Convener: Is it in some cases simply not cost effective to provide a solution?

Ronnie Mercer: We might wonder. Our barrier point started with a much lower figure, but it has crept up and up. Having discussed the issue at the board—I hope that I am not putting my colleagues in trouble here—I think that we are heading past the £50,000 per property mark. We wanted to start by getting the biggest bang for our buck—if I may use a crude American expression—so only the most difficult properties will be left.

It depends on a combination of what is physically possible in the time and what proportion of the money we are given to run the whole of Scottish Water can be used to deal with those properties. We are absolutely obliged to do the minimum.

For the next period—from 2010 to 2014—we will discuss with the regulators whether that investment could be accelerated at the expense of something else. Ultimately, everything comes out of one pool of money so—as with any other budget—if we overspend on one project, we need to underspend on another. We are looking at whether we could make an even bigger step between 2010 and 2014 when we agree a settlement for that period. This year, we will have opening discussions on whether we could aim at

making a bigger difference next time. Such internal flooding is one of the worst things that can happen to people, but there may still be some properties that we will be left wondering what we can do with.

The Convener: It is unlikely that all 1,600 properties are fixable, then?

Ronnie Mercer: I would have thought so, but why we cannot take an even bigger step next time—rather than fix just another 400—is a good point. We are talking to the Water Industry Commission about that.

John Scott: Who should be responsible for issuing warnings of pluvial flooding? You say in your written evidence that you are alerted only in some instances to potential flooding events and that

“we do occasionally monitor the SEPA web site.”

You say that, in general, you are alerted to actual, and in some instances potential, flooding events. Forgive me for saying so, but that seems a little haphazard. Should there not be a better system of communicating events that are likely to cause flooding?

Jim Conlin: All category 1 responders struggle with the impact of severe weather: we get many severe weather warnings that are not followed by any flooding. That takes us back to the original question. We do not have any way of modelling what will happen in the centre of Edinburgh when there is a certain amount of rainfall. Being told that it is extremely heavy or severe is not enough to trigger a response.

John Scott: Essentially, you are engineers and problem solvers. What do you suggest would be the solution?

Jim Conlin: We would need to develop computer models that could react ahead of time based on predicted rainfall. You will have seen radar rainfall maps. The Met Office is currently trying to use those radar maps to model the intensity of the rainfall on the ground, which is what we need to know. If we knew that, we would then model how it would flow through the streets and how it would get into the sewerage system. We can model the impact on the sewerage system and whether the flow of rain can get through the sewerage system, but we need an understanding of how the rain impacts on the surface. That is not modelled at present.

John Scott: In your view, who should be responsible for that? Should it be SEPA? Professor Crichton has suggested that there should be a flood commissioner—I presume with back-up services. You are well aware that bits of my constituency, Ayr, have been flooded as a result of fluvial flooding. I am grateful for the

measures that you are taking to rectify the situation, but the system seems to be a little haphazard. I want to know what the solution will be—we need solutions.

Ronnie Mercer: We said in our submission that SEPA is perhaps the logical choice. We have discussed that with colleagues, and the decision was influenced by a couple of things. First, Scotland seems to be saying at the moment that it wants fewer rather than more quangos and regulators. Therefore, we tended to think more about the work being done by an existing body rather than about creating another one. Secondly, in England and Wales—although we do not have to follow them—the Environment Agency is volunteering itself, as part of the inquiry into last year's events, as the strategic flooding agency and will overcome any conflicts of interest to do that. I am on the review group, which is due to report a week on Friday. It will probably endorse that. I am pressing the group to say that we either agree or disagree.

A number of surprising points have come out of the events of last year, of which that is one. We think that SEPA is the most logical choice from among the existing agencies to take on the work. If you want to create another agency, that would be fine. It would have then to liaise with SEPA, us and everybody else. We are really saying that perhaps SEPA is the answer.

The Convener: Before we go on to the responses to flood events—

Mike Rumbles: Could I ask a question?

The Convener: I have members waiting who have already indicated that they want to ask questions, so we will hold off, try to get through the questions, and do a sweep-up at the end.

Peter, is your question on this area?

Peter Peacock: It is on statutory duties.

The Convener: I have you, Karen Gillon and Bill Wilson wanting to speak, and I am trying to get through all the areas that we need to cover before I come back to members. If the question is on the specific area, you can ask it quickly.

Peter Peacock: My question is about Mr Mercer's point about the board's consideration of the right approach in the future. I am clear that you are saying that SEPA should be the national body and that you would not be concerned about that. It is one option. You also seem to be saying that you should be bound into the national body, with certain duties placed on you to help it in respect of flooding. Please correct me if that is wrong—it is my basic understanding of what you said.

Would there be a conflict of interests in relation to your current prime duty to supply wholesome

water—or whatever the phrase is—and your duties in relation to sewage if you were suddenly bound with duties in relation to flood management and flood protection to a greater extent than you are at present? How would it affect your relationship with the regulator if, for example, your investment plans had to change to spend more on flood protection and prevention measures because of changing design standards? One could argue that that would have a knock-on effect on the price that the customer pays. Do you anticipate that you would have to distort your current investment priorities to accommodate new national priorities on flooding? How would all that work together and how would it leave Scottish Water at the end of the day?

12:15

Ronnie Mercer: We have said that Scottish Water was probably formed to fix the water and sewerage system in Scotland. That has defined absolutely and very well what our job is. It has allowed Scottish Water, in conjunction with the regulators—I use the plural, because I mean the Water Industry Commission for Scotland, SEPA and the Drinking Water Quality Regulator for Scotland—to define where we need to spend. That leads to a situation in which we could be criticised for what looks like a disproportionate spend per head of population—that appearance is absolutely correct, because we can consider the whole country and say that we need to spend more per head in X, Y and Z than we do elsewhere because that is where the need is.

One advantage that we have is that our spending is defined by specific schemes—we have 3,200 projects to do in four years. We could roll out a piece of wallpaper to show the committee what they are, but we will not prolong the meeting. The point is that we know exactly what we have to do to deliver, which is a huge advantage when we are running a company with a £1 billion turnover and whose capital spend is £600 million a year. In that situation, we need to know absolutely what we have to do and then we have to go and do it, which is difficult enough.

If we changed any of the parameters, for example, to cover one in 100-year events, we would have to rethink the whole thing; we would have to redraw the contract with the Government and the ministerial directives, which lead to the SEPA, Drinking Water Quality Regulator for Scotland and WIC obligations on us for outputs. We are discussing the contract for 2010-14, based on where we are and what work we will finish in the current four-year period. We could not just come in and out—we need to know what we are doing.

Peter Peacock: In principle you are relaxed about such changes. If the nation said that we must give higher priority to flood and coastal protection, that would, as you have described, impact on your current mission and investment plans, but you are relaxed about that.

Ronnie Mercer: Yes—as long as we know what the changes are and we have a contract with all the parties to say what we have to do. That sounds awfully black and white, but that is how we get things done. That system has worked and is working, which can be seen from the various improvements throughout the country. We are happy to revisit the matter. We think there should be a supervisor of flood and drainage matters.

Karen Gillon (Clydesdale) (Lab): You mentioned the need to map pluvial flooding areas and said that that has not been done. What is the timescale for that work? Your written submission states that, in March 2006, 1,603 properties were connected to sewers with inadequate capacity. How many properties have been added to that register in the past two years, if any, and how many have been removed? What liability do you have in relation to the 1,200 properties that you do not intend to take out of that situation in the current four-year period?

Your submission states that land drainage is the “least well defined” area but, in rural constituencies such as mine, it has a potentially damaging effect as a result of sewer flooding. What steps are you taking to liaise with ministers or whoever to alter your responsibilities—or someone else’s—to ensure that land drainage does not continue to cause sewer flooding in properties by putting excess water into the sewers?

Ronnie Mercer: I will ask colleagues to give more detail. The figure of 1,603 properties is a pretty exact number, so you can imagine a map that shows where they are. The reduction that we are aiming at is in the agreement that we have in the contract with the regulators for the current four-year period. As we said, the convener made a good point that perhaps we should increase that figure next time round. We are considering that with the regulators.

Our obligation to people whose properties we do not fix this time is to help them. A problem may not arise, but we know that the probability that one will is much higher at their properties than it is elsewhere. Mark Dickson will tell you what we plan to do.

Mark Dickson (Scottish Water): Karen Gillon asked how many properties have been added to the list and how many have been removed. A total of 1,603 properties were registered as connected to sewers of inadequate capacity, and 450-odd

properties are to be removed from the risk of internal flooding. That is a net figure that takes into account additions to the list of at-risk properties.

Karen Gillon: Can you clarify that point?

Mark Dickson: There will be a net reduction of 456 in the number of at-risk properties. The figure allows for investment in any properties that come on to the register, so there is no moving target. We try to take a number of practical steps to mitigate the risk both to at-risk properties that are not included in the figure and to properties that are on the list. Those include warning people of rainfall events that may affect their property, and providing them with flood guards that cover their air bricks, and with door seals. If they have been flooded as a result of a rainfall event in the past, there are things that they can do to help themselves, as well as things that we can do to help them. They can reduce the risk of flooding while they await capital investment that will remove the problem on a more permanent basis.

Jim Conlin will answer the question about flood mapping.

Jim Conlin: There is no timescale for mapping surface water flooding in urban areas, because no one has started to do it. That is one of the problem areas. There is no lead authority and no funding is available for such work. The expertise to do it may or may not exist. I have indicated that there are difficulties in getting rainfall data in a usable form. Work in the area needs to be developed, but there are no timescales for doing so.

Karen Gillon asked about land drainage. When we find that land drainage connected to the sewerage system in an urban area is causing a flooding problem, we work with the local authority concerned, if it is a riparian owner, on how the problem can be removed. We cannot just block off such drainage, because it was installed in the first instance to alleviate another flooding problem.

We tend to find that overflow from culverted watercourses comes into the sewerage system. Culverts were installed by previous authorities to stop flooding in specific areas. We cannot simply block them off, because that would cause flooding somewhere else. We have to work with the council on deculverting the watercourse and returning it to the place where it should be flowing.

There are no easy answers. When visiting Glasgow, members saw how the Glasgow street drainage plan is being developed to address the issues there. That level of integration with the council is required. We must find out where the culverted watercourses are and how to get the water to flow to the Clyde—in Glasgow’s case—without going through the sewerage system.

Karen Gillon: Have you estimated the cost of that work across Scotland? In many cases, sewerage flooding is even more traumatic than freshwater flooding for the owners of the properties that it affects.

Jim Conlin: We do not have an estimate of the cost of removing land drainage from sewerage systems across Scotland.

The Convener: Karen Gillon is asking about the mapping exercise—the cost of establishing the scale of the problem.

Jim Conlin: I cannot give the committee cost figures, but as part of our capital programme we are modelling our sewerage and drainage areas. When we do the work and mapping for our drainage area models, we find areas where there are high infiltration and large inflows. We note and work on those areas. We are working towards achieving coverage of the whole of Scotland. In the current four-year investment period, we are producing major models for the Edinburgh-Portobello area, for the Meadowhead-Stevenston area in Ayrshire and for Glasgow. Those are large strategic studies of the sewerage system and in doing them, we will identify where the problems are and where upgrades are needed.

Bill Wilson: In answer to Karen Gillon you said that there are no timescales for the pluvial flooding maps. Does that mean that all that has happened is that you have agreed that you need them, but no one is doing them? Has there been any movement other than agreeing that you need them—or the country needs them?

Jim Conlin: We are at the stage where everyone is agreed that we need them.

The Convener: But no one is taking responsibility for pushing that idea forward.

Jim Conlin: No.

The Convener: Right. That is useful.

I have a couple of smaller points to wrap up. You will have seen and heard Professor Crichton's evidence about FLAGS, and you will have heard that although Scottish Water is entitled and invited to participate in FLAGS around the country, it very rarely does. You also say that you are not an emergency service, which limits your ability to respond quickly to events. My points are about dealing with the work that needs to be done before the event, and about responding after the event. Could you comment on Professor Crichton's observation, and on your point about not being a blue-light service and how that limits your response times?

Mark Dickson: I will tackle the second point, if that is appropriate. We receive an average of 10 to 13 contacts per month from customers about

flooding of their properties, and we tend to respond to them pretty quickly.

We are more limited when it comes to the severe weather events. In those circumstances, we respond as quickly as we can while prioritising properties where people experience internal flooding. Clearly, during extreme events, we cannot get around to everyone in a short time.

The Convener: Does Scottish Water respond in the same way as other services, such as the electricity companies? You have to quickly assess where the greatest need is and go there first.

Mark Dickson: That is right.

The Convener: What about my first point about FLAGS?

Jim Conlin: We do not attend all flood liaison advisory groups. We work with specific local authorities to link specific flooding issues in with our investment programme. An example is the work that we did with City of Edinburgh Council on the Water of Leith flood scheme, where we managed to link our investment in improving the sewerage system with the council's investment in a flood prevention scheme. We also work on specific projects with local authorities, such as Glasgow's strategic drainage plan. We work closely with local authorities when we are working on projects to improve the infrastructure.

The Convener: Why does Scottish Water not go to the FLAGS?

Jim Conlin: There are too many groups looking at issues that do not relate to the work that we are doing, so we would not add anything to the FLAG. If there are specific issues to do with our infrastructure on which we can add something, we will deal with those with the local authority.

The Convener: How do you know whether the discussions are relevant or not if you do not attend the FLAGS?

Jim Conlin: The local authority gets in touch with us to discuss specific issues.

The Convener: So you rely on the local authorities to—if you will pardon the pun—flag up issues in which Scottish Water needs to be involved. That might from time to time mean that someone will pop out to a FLAG meeting, but it would only be because of a notification from a local authority.

Jim Conlin: Yes.

Jamie Hepburn: Earlier, you mentioned the visit to Glasgow. I was on that visit and one of the joint approaches that Scottish Water has taken with SEPA and the local authorities in Glasgow and around the area was demonstrated to us. You will have to forgive me because I cannot remember

the name of the body although I am aware that it is an informal body. Would that approach be useful elsewhere? Is it okay to use such an approach on an informal basis, or would it be better if it was set out by statute?

12:30

Ronnie Mercer: Where there are big issues, such as Glasgow's drainage scheme, we would waste many millions of pounds if we did not do things in conjunction with the council—sorting its water courses, for example—and SEPA and so on.

Jamie Hepburn: That point was made to us.

Ronnie Mercer: Yes. For the projects that involve big-style spending to fix things, we are with the FLAG—formally or informally—and with the people who are making the decisions. I have met Councillor Stephen Purcell, the leader of Glasgow City Council, for example, because the Glasgow project is so big, and I also meet others. It is not that we ignore everyone; we are in there when it matters. The arrangement does not have to be formal, although it is as far as we are concerned. When Scottish Water says what it is going to do for projects such as the Commonwealth games and the east end project, the onus is on us to make sure that we do not waste our money because the rest of the work that is the council's responsibility is not being done. The councils are with us all the way on that, so I do not think that you need to worry about the larger projects and whether the arrangements are formal or otherwise.

The Convener: John Scott has a final question, after which we will have to bring the meeting to a close.

John Scott: When you talked about the Glasgow strategic drainage plan and the surface water plans, you spoke about the potential to use roads as avenues for water to get to the Clyde rather than it going into the sewerage system. I would like to explore that concept further. What is the potential for that? Briefly, please.

Jim Conlin: I will try to be brief.

The Convener: Yes. That was a more open-ended question than I had anticipated so it would be helpful if you could be brief.

Ronnie Mercer: We should start by saying that use of roads works elsewhere.

Jim Conlin: Our point is that we cannot just keep building bigger pipes and pumping stations to deal with the water; that will never succeed and would be prohibitively expensive. We have to find natural ways for the water to flow, which would hopefully be a green corridor. However, if the area is already built up, there might not be a natural

flow. The sewerage system might be able to deal with 98 per cent of the events that happen, but there will be 2 per cent of severe rainfall events that the sewerage system cannot deal with. In an area where we know that the road is going to flood and that the floodwater gets close to the river, we can shed the water there. So we close the road and tell people, then leave the road to flood, and that is the water's route. We need to work out the route of the flow.

Earlier, there were questions about having such ideas modelled but we do not have them modelled, and we do not have computer models. However, we could sit down with local authorities and do surface water management plans from local knowledge that, for example, certain manholes are going to pop and that certain roads are going to flood. We have to accept that and close the road during the 1 or 2 per cent of events that cause that level of flooding. We need to manage the flood and the route of its flow through an urban area as opposed to finding a way of getting it into a pipe.

The Convener: I thank you for coming along. I now close the meeting to the public.

12:33

Meeting continued in private until 12:54.

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