

TRANSPORT AND THE ENVIRONMENT COMMITTEE

Wednesday 21 November 2001
(Morning)

Session 1

£5.00

© Parliamentary copyright. Scottish Parliamentary Corporate Body 2001.

Applications for reproduction should be made in writing to the Copyright Unit,
Her Majesty's Stationery Office, St Clements House, 2-16 Colegate, Norwich NR3 1BQ
Fax 01603 723000, which is administering the copyright on behalf of the Scottish Parliamentary Corporate
Body.

Produced and published in Scotland on behalf of the Scottish Parliamentary Corporate Body by The
Stationery Office Ltd.

Her Majesty's Stationery Office is independent of and separate from the company now
trading as The Stationery Office Ltd, which is responsible for printing and publishing
Scottish Parliamentary Corporate Body publications.

CONTENTS

Wednesday 21 November 2001

	Col.
ITEM IN PRIVATE	2319
SCOTLAND WEEK	2320
AQUACULTURE INQUIRY	2325

TRANSPORT AND THE ENVIRONMENT COMMITTEE **29th Meeting 2001, Session 1**

CONVENER

*Mr Andy Kerr (East Kilbride) (Lab)

DEPUTY CONVENER

*Nora Radcliffe (Gordon) (LD)

COMMITTEE MEMBERS

*Robin Harper (Lothians) (Green)
*Mr Adam Ingram (South of Scotland) (SNP)
*Maureen Macmillan (Highlands and Islands) (Lab)
*Fiona McLeod (West of Scotland) (SNP)
*Des McNulty (Clydebank and Milngavie) (Lab)
*Bristow Muldoon (Livingston) (Lab)
*John Scott (Ayr) (Con)

*attended

THE FOLLOWING ALSO ATTENDED:

Mr Jamie McGrigor (Highlands and Islands) (Con)
John Farquhar Munro (Ross, Skye and Inverness West) (LD)

WITNESSES

Dr Alistair Davison (Scottish Environment LINK)
Patrick Fotheringham (Salmonid Fisheries Forum)
Darren Kindleysides (Scottish Environment LINK)
Dr Richard Luxmoore (Scottish Environment LINK)
Doug McLeod (Association of Scottish Shellfish Growers)
Andrew Wallace (Salmonid Fisheries Forum)

CLERK TO THE COMMITTEE

Callum Thomson

SENIOR ASSISTANT CLERK

Tracey Hawe

ASSISTANT CLERK

Alastair Macfie

LOCATION

Committee Room 2

Scottish Parliament

Transport and the Environment Committee

Wednesday 21 November 2001

(Morning)

[THE CONVENER opened the meeting at 09:32]

Item in Private

The Convener (Mr Andy Kerr): The first item on the agenda is—in line with our previous practice—to seek the committee's agreement to discuss in private item 2, which is consideration of possible lines of questioning on our continuing inquiry into aquaculture. Are members content to discuss the item in private?

Members indicated agreement.

The Convener: Thank you. As members know, we will take evidence for the aquaculture inquiry on 26 November and 12 December. I seek members' agreement that each of those meetings will begin in private, so that we can discuss lines of questioning for witnesses. Is that agreed?

Members indicated agreement.

09:33

Meeting continued in private.

09:57

Meeting continued in public.

Scotland Week

The Convener: I welcome everyone to this meeting of the Transport and the Environment Committee. Joining us today are Jamie McGrigor, who is sitting in for our aquaculture inquiry, and Professor Paul Read, who is our committee adviser on aquaculture.

Agenda item 3 is on Scotland week. Members have received a paper from Bristow Muldoon that outlines his thoughts on Scotland week, which he attended as a representative of the committee. Bristow will speak to that paper and take questions from members.

Bristow Muldoon (Livingston) (Lab): I was, on behalf of the committee, asked to attend a couple of the Scotland week events on environmental issues. I attended two events; one was a seminar on increasing awareness and changing attitudes to the environment and the other was a workshop on diffuse pollution. I have, for members' benefit, attached a copy of all the papers that I received during the two days that I spent attending the events. I recommend that members read those papers, because they will be helpful and informative in the context of some of the work that the committee will be involved in during the next few months, including the aquaculture inquiry and work on the legislation that will flow from the water framework directive.

The first of the events—on increasing awareness and changing attitudes to the environment—emphasised that there is a need for the Transport and the Environment Committee to become more engaged with the European dimension. The vast majority of current environmental legislation is initiated at European level. That key message came from several speakers; Ross Finnie, the Minister for Environment and Rural Development, and David Grant Lawrence—on behalf of the European Commission—emphasised that view, which was shared by the two members of the European Parliament who took part in the seminar.

10:00

The minister outlined, during the course of his presentation, some of the promotional and educational work that the Scottish Executive is undertaking. The presentation aimed to improve people's awareness of environmental issues, of the actions that the Executive is taking and of how those actions impact on the environment. The presentation was warmly received.

One of the areas that the committee might want to consider in future is the way in which we can learn from environmental work that is already under way in other parts of the European Union. As part of the seminar, the Minister for the Environment from the Västra Götaland region of Sweden—members must excuse my Swedish pronunciation, it is not one of my top European languages—spoke about the Swedish experience of dealing with environmental issues.

At some stage, it would be useful to explore the possibility of building links with Västra Götaland, because it is widely recognised that Sweden is a little bit ahead of us in dealing with environmental concerns. It is interesting to note that the Västra Götaland region of Sweden and the Scottish Parliament were established at the same time. A process of devolution was going on in Sweden and Scotland at the same time. We should also explore links with other regions of Europe from which there are lessons that we can learn.

David Grant Lawrence of the European environment directorate-general spoke about the need for greater integration between the various regions and nation states of the European Union. He acknowledged the extent to which the public sector has made a major input into improving environmental issues throughout Europe. He welcomed initiatives such as Scotland's joining up to promote the European car-free day in its cities from 2002 onwards. David Grant Lawrence also identified areas in which the UK could become more engaged with environmental issues at European level. He said that schools in the UK could make more use of the considerable amount of educational material on European environmental issues. We could suggest that to the appropriate minister in due course.

I suffered for the committee on the day of the workshop—eight hours on diffuse pollution. However, the workshop was worth while and it was attended by several experts. Members received copies of the papers only yesterday, so they will not have had an opportunity to go through them yet. I suggest that that it would be worth while to do so prior to our work on the water framework directive.

Professor David Kay from the University of Wales presented one of the first papers at the workshop. He examined issues that are associated with the quality of bathing water in Ayrshire and compliance with EU regulations. One of the key points that was identified by Professor Kay was the extent to which the effect of diffuse pollution needs to be taken into account to comply with existing and future regulations. He identified several case studies in which, although expensive engineering solutions had dealt with human sewage, beaches continued to fail the test of the

regulations, for which the core reason was that the impact of diffuse pollution on those bathing areas had not been taken into account. Professor Kay emphasised the need to produce environmental models that take account of human sewage and of pollution from agricultural and other outputs if, in future, we are to achieve the targets that have been set.

The workshop also included a seminar by the manager of Bretagne eau pure, who highlighted some of the methods that Bretagne eau pure had introduced in partnership with the agricultural industry to reduce the output of nutrients into water systems. If members go through their papers they will find that I have kindly provided them with a French copy of the report. However, in case any members are not fully conversant with French, I have also provided an English copy. I am sure, however, that members will all be satisfied with the French version.

In addition, representatives from the Västra Götaland region in Sweden went through some of their methods of introducing wetlands to reduce nitrogen and phosphorous pollution of water systems. Finally, there are also reports from some of our home-grown representatives at the seminar—Brian Darcy and David Harley of the Scottish Environment Protection Agency—on how to build sustainable urban drainage into our planning systems in order to reduce pollution of our waterways by urban drainage. I have attached copies of all those presentations.

I return to my initial point. If the committee is going to be effective in promoting environmental improvement in Scotland, it is essential that we consider—with our colleagues on the European Committee and in the Executive—how to engage effectively with the European Parliament and European Commission to ensure that we are aware of environmental developments and that we can influence those developments prior to their being enacted. I recommend that the committee undertake that work soon to ensure that we fulfil our duties appropriately. I am happy to take questions.

The Convener: Thank you. Your report covered many topical issues and interesting lessons that can be learned. The eight-hour shift that you put in on diffuse pollution will benefit the work that the committee is undertaking in the short term. We have decided to focus part of our away-day work on European matters—that is being organised. We will also have a meeting about environmental matters in Europe with Margot Wallström of the European Commission. Your point about influencing European legislation prior to its framing is a lesson that we must learn throughout Parliament, but particularly in this committee.

I thank Bristow Muldoon on behalf of the

committee. We appreciate his verbal and written reports, which we can use as reference for the future. I invite questions from members.

John Scott (Ayr) (Con): On behalf of the committee, I thank Bristow Muldoon for his hard work in attending the seminars and in particular the one on diffuse pollution. On Professor Kay's report, I have a vested interest in the Ayrshire bathing waters in question and I have two points to make. First, on the note in appendix B of Professor Kay's study, I want to point out that Ayrshire is in the south-west of Scotland rather than the south-east, as the document says. I am not sure whose fault that is. However, I think that Ayr would like to be regarded as being in the south-west of Scotland. My second and more important point is to ask whether Professor Kay offered any specific solutions to the diffuse pollution that torments Ayrshire.

Bristow Muldoon: I am sure that Professor Kay is well aware that Ayrshire is in the south-west of Scotland as opposed to the south-east. I presume that that is just a typographical error. Copies of all Professor Kay's slides are available on the internet. I recommend that reference source to members.

Possible solutions to diffuse pollution were discussed during the course of the seminar. Some solutions involve the introduction of limited wetlands, which would reduce the outflow of nutrients from agricultural land into neighbouring bays and so on. The problem that Professor Kay identified in Ayrshire is not a problem all the time; however, high rainfall in particular triggers the failure of the beaches to meet standards. One solution could be to stem the flow of nutrients and bacteria such as coliforms from agricultural land into bathing waters.

The other possible solution is the one that the representative from Brittany identified. Environmental organisations and agricultural interests there worked in partnership in order to reduce the level of nutrient input on agricultural land, to plan that more effectively and to understand what the impact on the surrounding environment would be. Those are two of the key areas that could be addressed; solutions are available.

A key point to make is that nobody in the seminar was overly critical of agriculture; they all recognised the importance of agriculture. They were trying to emphasise that we need to understand its impacts and to plan strategies that will reduce impacts on the environment.

Maureen Macmillan (Highlands and Islands) (Lab): I read the papers last night. I read the French paper and, feeling very proud of myself for struggling through it, found to my consternation

that there was an English translation.

I do not quite understand what is being proposed for urban waste water. The papers talk about porous and non-porous surfaces. Is the suggestion that there ought to be more grass and parks in urban areas? What exactly is being suggested?

Bristow Muldoon: There is a range of suggestions. One idea is that some of the hard, porous surfaces in urban areas might hold water for longer so that when it hits the ground it does not run off immediately into drains.

Other solutions were discussed at the seminar. It was suggested that new housing developments would have natural run-off areas from which water could run off into small ponds. That would result in natural treatment of potential pollutants, rather than the historical position in which the water merely runs off into the drains. There are a number of examples of that sort of solution being designed as part of new housing or industrial developments throughout Scotland.

Maureen Macmillan: Would that not lead to a build up of pollutants in those areas? The same might apply to the build up of nitrates in agricultural areas. Perhaps that information is on Professor Kay's slides on the internet.

The Convener: I do not know whether it is fair to ask Bristow those questions. If he feels brave enough to answer them, I will let him go for it. It might be more appropriate to pursue those matters elsewhere.

Maureen Macmillan: I agree.

Robin Harper (Lothians) (Green): A new part of the estate south of Craigmillar in Edinburgh is being redesigned. Many of those ideas on wetlands and porous car parks are being incorporated into the redesign.

The Convener: I appreciate Bristow Muldoon's contribution. The issue of educational materials, which Bristow raised in his report, is worth pursuing. Perhaps he will discuss that with the clerks and we can send a letter to the appropriate minister.

Aquaculture Inquiry

The Convener: Agenda item 4 is our aquaculture inquiry. This is the first evidence-taking session during our rolling inquiry into aquaculture and is the first of three sessions that are designed to focus on the regulatory framework for aquaculture.

We have received correspondence from the Deputy Minister for Environment and Rural Development on support for the resourcing of the rolling inquiry. Although we welcome the broad intent of the Executive with regard to providing resources, we have some concerns, which I will—with the committee's agreement—forward to the minister. It is also appropriate that Professor Paul Read, our adviser, discusses with the committee's reporters appropriate ways forward for finding those vital resources.

Before we move to the inquiry, I will place on record a few comments. I would not normally do so, but it is appropriate on this occasion. My comments relate to a press release from Allan Berry, the originator of petition PE96, which provided us with the impetus for the inquiry. Mr Berry says in the press release that

"The so-called, 'rolling inquiry', is a farce"

and that the committee has

"done an abrupt 'U turn' and washed their hands of PE 96 without allowing me an opportunity to present my case."

The tone of the press release and the views that it expresses are a disappointment to me. I reject any suggestion that the work that we are about to undertake can in any way be described as "a farce". The committee has a strong track record in dealing forcefully and seriously with petitions. Our work on telecommunications and on seed crushers, which led to a change in legislation, and our work on genetically modified organisms all arose from petitions.

10:15

I hope soon to report back to the committee on PE327 on the spreading of organic waste on land. We have a good track record in dealing with petitions and we should be proud of it. Such work is only part of our responsibilities; as members are aware, we undertake other work, such as scrutiny of bills and subordinate legislation. We are currently scrutinising the Water Industry (Scotland) Bill and we expect to scrutinise the water environment bill next year. We also continue to scrutinise the role of the Executive in many other ways.

On the subject of Mr Berry's participation in our inquiry and his outburst, I say this: Mr Berry has submitted written evidence to the inquiry and has

met committee reporters and other members of the committee. He has e-mailed us frequently and his views on the matter are clear. Because of the short time that is available to us and given that we know Mr Berry's views, committee members felt that the best approach to the inquiry was to seek other views in order to get a broader understanding of the issues. That is no slight to Mr Berry; it is merely an expression of the fact that the committee's reporters have met Mr Berry and we know his views.

I felt that it was important to say that. As convener, I must protect the committee when such matters are raised. I hope that we can now move on—as I hope that Mr Berry will move on—and take further evidence.

We have with us our first set of witnesses in our aquaculture inquiry. Doug McLeod is chairman of the Association of Scottish Shellfish Growers and Andrew Wallace and Patrick Fotheringham are here on behalf of the salmonid fisheries forum, which represents the interests of the Association of Salmon Fishery Boards, the Salmon and Trout Association, the Scottish Anglers National Authority, the Atlantic Salmon Trust and the Association of West Coast Fisheries Trusts. The witnesses have sizeable organisations behind them, and I invite them to make short opening statements before we move to questions from members.

Andrew Wallace (Salmonid Fisheries Forum):

I thank the convener and the committee for inviting us to give evidence. To put our evidence in context, I will run through the much-talked-about tripartite working group process; I will conclude with our belief that there is a regulatory gap to be filled. Patrick Fotheringham will pick up that point.

The tripartite working group was established in June 2000. It is a consensus group and represents the industry, wild fish interests and the Scottish Executive. Its particular focus is on the collapse of wild salmon and sea trout stocks on the west coast, which has become an extremely serious problem. However, our interests extend well beyond the collapse of those stocks to the wider environmental issues that are associated with aquaculture.

I have provided members with a brief summary of the concordat that was signed. It gives the terms of reference, the objectives, and some of the measures that we would like to be included in the area management agreements. Particular emphasis has been laid on the construction of those agreements. I am talking about relationships that have been forged principally between fish farming companies and wild fish interests to try to achieve a better understanding of the problems that are associated with aquaculture and wild fish interests. Six such agreements have now been

established—and it is fair to say that they are the six easy ones. We have encountered considerable difficulty in establishing new agreements for a variety of reasons that I will be happy to go into later.

It is also fair to say that the process, in which I have considerable faith, has attracted legitimate criticism. That criticism falls into a number of different categories. In the first category is the criticism that the agreements have no teeth. That is a fair criticism: the agreements rely heavily on good will between industry and wild fish interests. When we encounter problems, on either side, no mechanism exists to resolve them.

There is incomplete coverage of the west coast, where the only six agreements have been formed, and that is obviously undesirable. There are accusations concerning the transparency of the agreements, which I think are fair. There is also a great deal of difficulty concerning the provision of information, which is deemed to be commercially sensitive, from the salmon aquaculture industry. I confess that I find it extraordinary that information that is important to many different stakeholders on the west coast is not made freely available; however, such are the rules by which we are governed. We have therefore had to construct what we might describe as confidentiality parameters around those agreements, to try to ensure the good exchange of information with a limited group of people. However, that is clearly undesirable to other stakeholders, who do not have a say in the agreements.

It is also fair to say that, because the agreements are limited principally to wild fish interests and fish farmers, they do not include other stakeholders such as the shellfish growers, from whom we will hear in a minute, local communities and all sorts of other people who have a manifest interest in the subject. That, again, is a problem. I stress, however, that the difficulty of establishing agreements between the two interested parties, as we have them at the moment, has been great enough without involving people with other agendas. I am encouraged by progress in other regions where area management agreements are starting to grow outwards to include some of those other interests. Nonetheless, the issue needs to be addressed.

The agreements have required compromise and in trying to construct them we often find ourselves in situations that are far from ideal. We have taken the view that it is better to reach an agreement through dialogue and compromise than to have no agreement at all.

Another issue is that of resources—how to make the agreements work. I am grateful that the Executive has recently been able to approach Highlands and Islands Enterprise to raise a

considerable sum of money to support a development officer post that will give some life to the area management formation process. Some resources have also been allocated to the various regions, to support area management agreements on the ground.

What we have here are the early stages of something that is potentially quite useful, although we are encountering a number of intractable problems. We have a problem identification system, but we do not yet have a solution delivery system, and that is the real challenge for the tripartite working group. One of our concerns is that the voluntary process in which we are engaged can take the procedure only so far before we meet a regulatory gap that needs to be filled. To make the scheme work, the industry will have to be required to comply with either its own codes of practice or Government codes of practice. Many of those codes are extremely comprehensive, but there is no force of law behind them. On that subject, I hand over to Patrick Fotheringham, who will explain how the regulatory gaps might be filled.

Patrick Fotheringham (Salmonid Fisheries Forum): I am here in place of Colin Innes, who is the chairman of the Salmon and Trout Association. He is a specialist in environmental and planning law, and much of what I am going to talk about concerns planning law and the planning system. I shall try my hardest to fill his shoes, but it may be a little testing at times.

You have heard from Andrew Wallace that the area management agreements are useful in highlighting the regulatory gaps in the system, and you have heard in some detail about the ways in which the tripartite working group and area management agreement process are incapable of plugging those gaps. Section 1 of our written evidence contains six bullet points that outline why we believe those gaps are not effectively plugged. We are inevitably led to conclude that a regulatory regime must be put in place specifically to plug all the gaps and catch all the various environmental impacts that are not currently regulated for.

There are two possibilities: either, as has been suggested, the whole thing should fall into a catch-all planning system—which could consider the environmental impacts that are not dealt with under other regulatory regimes—or we need a specific environmental regime to cover the industry and its various problems.

If the former of those two possibilities were chosen, there would be three basic problems. First, would the local government planners be resourced so that they could gain expertise to deal with increasingly complex environmental and scientific questions? Secondly, if the industry was to be regulated purely by the conditions that

planners attach to consents, how would in-service monitoring of the compliance with those conditions be carried out? For example, would local planning officers go round fish farms in little boats to check whether farms were complying? If so, a complete reassessment of the planners' role would be required, which might be difficult to achieve. Thirdly, the planning system is by nature extremely confrontational. There is great potential for acrimony and conflict, particularly within the current aquaculture debate. I am sure that everybody can envisage, because of the way in which the planning system and its appeals processes are set up, that there would be huge numbers of call-ins and inquiries. The debates would rage.

The inevitable conclusion is that the best way forward is for a specific environmental regulatory regime. The water framework directive requires that diffuse pollution be dealt with using a best available techniques—or BAT—regime, which seems a logical route to go down. We need an integrated flexible regime that can progress as the industry advances and change as new scientific evidence comes to light. That would mean that we would not be left in the position that we are in with the Control of Pollution Act 1974, which was designed in the 1970s, long before the aquaculture industry developed. Basically, COPA is now being applied to something that it was not designed to deal with. We must not let ourselves get into such a situation again.

That is as much as I need say for now.

The Convener: Thank you. You have covered some issues that will be useful to our investigation.

Robin Harper: In the light of the convener's opening remarks, I reassure the committee and the witnesses that I fully support the idea of a rolling inquiry—I discussed it at the tripartite group as early as July. Let me clarify that I did not make some of the remarks that Mr Berry's press release ascribed to me.

There are two big questions. Everybody who spoke to us gave what seemed to be the unanimous view that an assessment of the environmental carrying capacity of Scottish coastal waters is needed. Will you indicate what work needs to be undertaken to assess the carrying capacity of Scottish inshore waters?

Patrick Fotheringham: It is extremely important that the various environmental impacts are specifically examined. There is a lot of evidence out there, but one of our biggest problems is that much of it lies with the industry. As Andrew Wallace highlighted, it is difficult to get hold of that evidence for reasons of commercial confidentiality. Perhaps the best route for establishing carrying capacity is to put in place an open regulatory

regime. Much of the information would then be required to come out and could be fed into a comprehensive examination of carrying capacity.

The best way of dealing with existing sites and the best way of dealing with the whole idea of carrying capacity is to look at locational guidelines. We need to reassess the locational guidelines for each site in which a farm is clearly in the wrong place. There must be a lot more information, which must be applied rigorously—it could be done through the planning system in part. In that way, as applications and renewals come up, we could relocate sites that are clearly in the wrong place. The question about carrying capacity will be answered when that information is gathered through that sort of planning mechanism.

The Convener: Do the other witnesses have any comments on Robin Harper's question?

10:30

Doug McLeod (Association of Scottish Shellfish Growers): I apologise for not being on top form this morning. I have just flown back from China with a Chinese cough and cold.

It is interesting to compare the inshore waters environment in China with that in Scotland. The Chinese seem to have gone too far the other way and have overexploited their inshore waters. As I was admiring some of their production activities and worrying about others, it struck me that it is a question of balance. That is what I hope the combination of your rolling inquiry and the Scottish Executive environment and rural affairs department review of the aquaculture regulations will come up with—a better balance between fin fish farming and shellfish farming in Scottish waters. We need to seek a de-ghettoisation of those different species and an integrated aquaculture. That means thinking creatively and calling on the scientific community to identify the areas of investigation that will help the sector to move forward to a positive future, rather than continuing with the confrontation that we have seen in the past and which takes place to this day.

Carrying capacity is the critical issue and is at the heart of any sensible legislation and any sensible view of where the industry will move in future. I do not know how much it is going to take, but there is an old Chinese proverb that a journey of a thousand miles starts with a single step. We have to take that single step. We have been turned down by SEERAD too often in the past few years when we have required or requested that carrying capacity work be carried out. The industry needs the support of the Scottish Parliament and of committees such as this to gain some leverage over SEERAD and to inform it that it must carry out that task as part of its remit.

At the committee on agricultural research and development—CARD—that met yesterday in Pentland House, we tabled a request for a study of carrying capacity to start with Loch Etive in Argyll. I hope that that will be the first study of many looking at individual water bodies and trying to come up with the best combination for an integrated aquaculture industry in those water bodies.

The Convener: We always seek a balance. Most of the committee's work in the past has been about getting the balance right. I have to say that I think that the phrase that you quoted about the long march was not an old Chinese proverb, but was coined by Chairman Mao. For the benefit of the press, I stress that that does not indicate any Maoist tendencies on my part.

Maureen Macmillan: I will not comment on that. I want to ask about modelling and our ability to model the carrying capacity. I get the impression from previous evidence that modelling is still at a very crude stage and that it is rather inflexible and of a one-size-fits-all nature. Do we need to do much more research on that?

Doug McLeod: It is certainly early days. We have simple models, such as the ones that the Dutch use for their growing areas. There are also a number of other models that can be used, but they are fairly simplistic. One of the reasons for my visit to China was to participate in the final meeting of a three-year, EU-funded project between three European countries—the UK, France and Portugal—and the Chinese, running a carrying-capacity model. The Chinese feel that, by tackling the problem in a three-dimensional, multi-species way, they are at the cutting edge of that work. It is the group that I put together that submitted the request for a study on Loch Etive to the CARD meeting yesterday.

I do not know who will fund that—perhaps a research council. If that study is accepted and funded, it will be a major step forward. That is how we must approach the matter. If we undertake modelling first for a significant and relatively enclosed water body, such as Loch Etive, we will learn how to do it for other areas. We can roll out the programme from there.

Andrew Wallace: I understand that a proposal has been made for further research into carrying capacity, which is something of a black art. We should all try to pursue that. Such research would be welcome, but research is fairly open-ended and in the meantime a precautionary approach should be adopted. If we wait for all the answers on the subject, which is extremely complex, we may wait a long time.

Robin Harper: That brings me neatly to my next question. It has been suggested that until carrying

capacity questions can be answered, a moratorium should be placed on the issuing of new consents for salmon farming. Do you agree?

Patrick Fotheringham: Yes and no. On the face of it, it would help if a precautionary approach were taken and the industry were frozen. We could examine the industry and take the view that if it continues to expand organically, without the information that we need to ensure that it is regulated properly, great damage could be done.

However, several initiatives to relocate sites, remove sites that are in the wrong places and reduce farm size are being undertaken. The industry must be flexible enough to change to help itself. If a moratorium on expanding the industry, saying, "No new sites for fish farms until we have sorted this out," were put in place, it would prevent the relocation of farms that are in the wrong places to less damaging and less harmful sites.

The Convener: Is Jamie McGrigor's question on moratorium issues?

Mr Jamie McGrigor (Highlands and Islands (Con): I suppose that it is on moratorium issues. Is Scottish Quality Salmon's code of practice good? Do fish farms that are outwith Scottish Quality Salmon's regime have any code of practice? Other countries, such as Norway, have fish farms and particularly salmon farms. What regulations do those countries have on siting fish farms away from river mouths, in sea lochs or fjords?

Andrew Wallace: It is fair to say that some industry codes of practice—and SQS's codes of practice—are extremely sophisticated, but Jamie McGrigor identified rightly the fact that many operators do not fall under SQS's banner. That presents us with problems.

The enforcement of codes of practice remains a problem. We continue to return to the problem of the free rider—someone who does not adopt codes of practice, often for reasons of operational flexibility. The strength of Patrick Fotheringham's proposal is that it would enshrine some codes of practice in regulation. An analogy might be drawn with driving licences. We do not worry about the odd fine, but we do worry about losing our licences. Such a threat needs to be wielded to bring the industry into line.

I am not particularly competent to answer Jamie McGrigor's question on Norway, but I understand that Norway is increasingly adopting exclusion zones for salmon aquaculture in areas with important salmon fisheries. Norway also has a rigorous policy on freshwater hatcheries on important salmon systems. That recognises the importance of the wild salmon resource in Norway.

Mr McGrigor: Just on that point, are you examining the freshwater environment as well as

the marine environment with regard to the effects of cage farming?

Patrick Fotheringham: The two issues are separate. There are huge problems with certain elements of the freshwater aquaculture industry, but it is already controlled by the planning process and so on. Regulatory mechanisms are in place, but there should be guidelines to advise planners on what they should do when attaching conditions to freshwater fish farm consents. For the marine environment, however, there are gaping holes in the regulatory net that must be mended by a specific regulatory regime.

The Convener: The next time you want to ask a question, Mr McGrigor, kindly indicate that to me.

John Scott: You spoke about the need to relocate fish farms. Can you give me some indication of how that might best be funded and who would be responsible for the funding of such a relocation?

Andrew Wallace: That presents us with a difficult problem. However, there is quite a lot of structural support for the aquaculture industry from the Crown Estate and from Highlands and Islands Enterprise that could be moved in that direction, as they are considering ways to incentivise the industry in a more sustainable way.

In our negotiations in the tripartite working group, the issue of location and relocation was raised by the industry. The bigger companies, which have a bigger capital base and greater operational flexibility, might find it easier to relocate than would smaller companies.

Robin Harper: Would the imposition of a moratorium on any significant overall expansion of tonnage farmed, allowing for slight changes or extra cages for reasons of good husbandry, be a way forward? A moratorium would not mean that there were no new sites. It would protect the carrying capacity from further encroachments by placing a limit on the tonnage.

Patrick Fotheringham: We would like the current situation to be reassessed. Provided that the industry is not so cramped by the moratorium that it cannot afford to comply with any regulatory regime that is being put in place, a moratorium would be possible. However, compliance costs are likely to increase under a new regulatory regime and there is a danger that the industry will get so cramped that it will start cutting corners all over the place and we will end up in an unnecessary and difficult situation.

In principle, we should be asking how we can prevent further expansion of the industry from causing further damage and we should certainly take a precautionary approach.

Bristow Muldoon: As you said in your

introductory remarks, there has been a welcome from a broad range of interests for a transfer of planning powers to local authorities. How much of a change would be needed in local planning regimes to make them applicable to marine fish farming? What additional skills would local authorities need to enable them to engage effectively in that practice?

Patrick Fotheringham: The regime that we are proposing does not do away with the planning element. There must be a dual approach. A planning application would have to be made for a new farm and the planners would still carry out environmental impact assessments and consider locational guidelines, which would hopefully be beefed up. Certain issues need to be examined closely, such as the location of salmon farms in the mouths of salmon rivers. Possibly, guidelines should be issued that state that a salmon farm must not be located within a certain distance of the mouth of a salmon river.

The local authority planning regime needs to be supplemented by something a lot more flexible that will include in-service monitoring of the industry to ensure that it complies with regulation, such as a specific environmental regulatory regime that would run parallel to the planning process.

This is a good moment to add that it is important that a co-ordinating unit ties up the two sides, so that the planners and the environmental regulators are aware of what each element of the system is doing. A system in which the planners did one thing and the environmental regulators did another would present huge problems, but a co-ordinating unit, which might be located in SEPA, would tie up the two elements.

10:45

Andrew Wallace: I have a brief point about planning in freshwater aquaculture, which was mentioned earlier. The responsibility for planning was brought under local authority control in the mid-1980s, but 15 or 20 years later there are still no national planning policy guidelines for freshwater aquaculture. That reveals a gap in the experience of local authorities in the business of management of aquaculture. That gap needs to be filled quickly.

Bristow Muldoon: How should the new planning regime impact on sites that are subject to existing leases? Do you think that the regime should be applied to such sites and, if so, in what manner? It seems problematic to introduce retrospective legislation, although it might be possible for the new planning regime to apply to renewals of leases.

Patrick Fotheringham: Mr Muldoon has

answered the question himself. As leases come up for renewal, they will fall under the planning regime that is in place and each application will be dealt with on its merits. That will avoid the guillotine by which every farm on the west coast of Scotland would have to be assessed at the same time, which would swamp the planners and the industry and would not be workable.

The new regime should in effect be phased in—lease renewals can be dealt with as they come up. If there are new beefed-up locational guidelines, they should be applied to each site on its merits.

Nora Radcliffe (Gordon) (LD): It is sometimes said that the planning process does not always result in a uniform approach. Is that a concern to the witnesses? I am interested in their views on how we can get the right balance between national guidance and local input.

Andrew Wallace mentioned that we do not have national planning policy guidelines on freshwater aquaculture. Is it his impression that local authorities have developed their own expertise in the area and that they operate reasonably well?

Andrew Wallace: I cannot answer that properly, but I suspect that the desired uniformity between local authorities on the matter does not exist. My limited experience suggests that there is competence in the local authority network in dealing with the issue. However, I am not suggesting that a harmonised approach exists throughout Scotland.

Doug McLeod: I have always thought that the move to local authority control over planning had the problem of having to create a level playing field. In our experience, the implementation in Scots law of the shellfish hygiene legislation that controls our sector—the famous European Council directive 91/492/EEC—varied among local authorities. Once the councils' planning committees get their hands on the industry, there will be vast differences in implementation.

I do not mean to be pejorative, but Argyll and Bute is an area that has always caused the aquaculture industry major problems, because the council is dominated by the view that tourism is the only industry. Any other industry whose development might affect that view creates an instant not-in-my-backyard attitude in the planning committee. That has made it difficult for the aquaculture industry to develop in Argyll and Bute. If that continues in other areas because there is a lack of insight and knowledge on the part of officials and councillors, there will be great problems in the future. They need resources to get up to speed on the technicalities of aquaculture activities.

Mr McGrigor: I believe that one of the main complaints of the fish farming industry is that it has

to pay high rents to the Crown Estate, a situation that is not replicated in other countries. I believe that Marine Harvest pays £800,000 in rent every year. If responsibility were transferred to local authorities, presumably rent would still go to the Crown Estate, yet the local authority would be in charge of siting the cages. Do you foresee SEPA being in charge of overseeing therapeutic drugs and that side of things, or will that also be the responsibility of the local authorities?

Patrick Fotheringham: Therapeutic drugs and medicines that are used to treat sea lice would have to fall within SEPA's remit, preferably under the environmental regulatory regime that we have proposed. It is perhaps a good moment to raise the question of sea lice. It has been suggested that the issue of sea lice should be dealt with entirely separately and be given to fish health and the Fisheries Research Services to handle. We have fairly strong views that that might not be appropriate. If one body is in charge of regulating lice and another body is in charge of regulating the medicines to treat those lice, we are likely to end up with a very un-joined-up situation. It would be far better for one regulatory authority to be responsible for balancing those two interests. Only then can that balance be struck sensibly and strategically.

Nora Radcliffe: I want to clarify your thinking. You think that an NPPG on your industry is overdue. Do you think that it would be helpful to have one?

Andrew Wallace: Yes. It would address the issue of consistency across planning authority boundaries. Without any reference to a central policy on aquaculture, that problem will only get worse.

Nora Radcliffe: I just wanted to make that clear. I want to move on to environmental impact assessments and the regulations that go with them. What are your views on the appropriateness and effectiveness of the current implementation of environmental impact assessments?

Doug McLeod: At the moment, the shellfish sector falls outwith the environmental impact assessments—and long may it stay that way—although, like all human activities, I am sure that what we do has an impact, albeit minuscule. At the moment there is a gaping hole. There may be a change in biomass that would exceed the requirements for an environmental impact assessment if it were a new application. If it is within a current application, an EIA is not required. I am thinking of an example off the coast of Skye, where the biomass is rising from 500 to 2,000 tonnes per year, but because it is not a new site and is not requesting an increase in scale of activities, it does not have to produce an EIA. I think that an EIA should be required if there is any

increase in biomass that exceeds the current limitations. As a regulatory tool, it requires to be tightened. However, as I say, I do not know the ins and outs of the matter as it is outwith my sector, although I am sure that there are plenty of experts who could advise the committee on it.

Maureen Macmillan: Will you explain why you think that shellfish farming does not need an environmental impact assessment? Might your opinion change if there is a great expansion in such farming?

Doug McLeod: Shellfish farming should not require an EIA because any environmental impact that it might have essentially revolves around a process of natural extraction from the phytoplankton ecosystem. In other words, such farming does not introduce anything that would have an environmental impact. Although this might be a splitting-hairs, how many angels dance on a pinhead-type point, I feel that, because our sector is nutrient-extractive instead of nutrient-inputting, any environmental impacts that we have are positive rather than negative.

Secondly, as our sector is characterised by small to medium-sized enterprises and micro-SMEs, any additional cost incurred by carrying out or funding an EIA would have a negative effect. Finally, any requirement for EIAs would require the sector to be significantly larger before we could afford to carry them out and indeed before they would be necessary.

Nora Radcliffe: In cases where implementation of a full EIA was not required, might there be a place for an interim measure such as a more limited environment study? Who should act as the competent authority for EIAs?

Andrew Wallace: The answer to your first question is yes. As for the second question, the competent authority should be the current assessors of the environmental impact process. Although I cannot speak with any great expertise on the matter, that would be the logical answer.

Patrick Fotheringham: EIAs would play a key role when planners considered applications, particularly for new farms. They would also be critical to planners when they considered applications for the relocation of farms or the renewal of consents.

Robin Harper: I should make a very quick comment for the sake of accuracy. Jamie McGrigor referred to the huge rents paid to the Crown Estate. We were reliably informed that those rents amount to 2 per cent of the annual turnover of the average farm.

The Convener: That figure has been placed on the record, and we will no doubt investigate the matter when we review the evidence.

John Scott: You will be aware that the Executive is reviewing locational guidelines. How can they be made more transparent and user-friendly? Furthermore, should they differentiate between the needs and impacts of shellfish farming, salmon farming and farming of other marine species such as cod and halibut?

Patrick Fotheringham: On the first question, a degree of flexibility is critical. It would be entirely inappropriate to apply the same locational guidelines to a shellfish-farming site as to a salmon-farming site. It is essential that information that could help to improve the guidelines and make them more effective—much of which is held by the industry—is brought into the public arena, as that would go a long way to improving their quality.

Doug McLeod: It is a question of how one sees the industry's future growth. As I said before, I want to deghettoise the species. I do not want one loch to be prioritised for salmon and another prioritised for shellfish. If we want a multi-nutrient budgeting vision of the future—

The Convener: That trips off the tongue.

John Scott: "Balanced" would do.

Doug McLeod: If we are to have such a vision, we have to review the guidelines in a particular way. On the other hand, if we wish certain areas to be prioritised for certain species, the guidelines would have to be cast in a completely different mould. Those things cannot be considered separately; they have to be considered holistically. They have to be driven by a certain vision. That could be the positive outcome of the committee's inquiry.

11:00

John Scott: Do you envisage the Executive providing the vision for which species should be preferred? Should that not be industry-led?

Doug McLeod: It should certainly be industry-led. The Executive is probably not the right body to come up with the vision. The vision needs to be industry-led, but it needs to be assisted and guided by environmental concerns that are scientifically robust and proven. That is why I say that we first need research on carrying capacity.

We also need good models that allow us to have a correct, sustainable vision of particular areas. It may be that certain sea lochs should not at the moment be allowed to have, for example, additional or incremental salmon capacity, but it would be good if additional farms for other fin fish were allowed in those lochs. Perhaps, if somebody is applying for a licence to develop a fin fish operation, there should be a requirement to tack on to that operation a shellfish and/or seaweed

operation to act as a biological sink for the additional nutrients that they would be putting into the system.

That all comes together if we consider life holistically. I do not think that the Executive is cast in that mode, but it needs to establish the boxing ring—the forum—in which industry-led debate can develop the vision.

John Scott: So flexibility is essential.

Doug McLeod: I certainly believe so.

John Scott: The parameters must be clearly defined, acceptable guidelines for the industry to develop within.

Doug McLeod: That is correct. Such parameters come from science.

Andrew Wallace: I fully endorse Doug McLeod's vision for marine polyculture. It is a desirable end. However, I have one word of caution, which will probably become particularly important quite imminently. With other fin fish species, the industry may find some salvation in higher prices and a perception of fewer environmental problems. However, we have to be extremely careful not to recreate the problems of the salmon industry of 20 years ago. We are dealing with an intensive process, however we consider it. That process—regardless of whether it involves cod, haddock, turbot or salmon—is likely to have a serious impact on the locations in which it is sited.

The Convener: I issue my customary caution to members and witnesses. We have a tight time scale this morning. Please keep the questions and responses tight. That would be useful.

Mr Adam Ingram (South of Scotland) (SNP): I will move on to area management agreements and codes of practice. You mentioned in your opening remarks that only six AMAs were in place. What proportion of salmon rivers in Scotland do those six agreements cover? How far short are we of full coverage?

You also said that many of the agreements are compromises and depend on the good will of the parties to the agreement. What have the agreements achieved? How far short of objectives and expectations have they fallen?

Andrew Wallace: On coverage, for the purposes of the debate, we are principally considering the areas from the Clyde to Cape Wrath, including the Western Isles. With no offence meant, I will leave Shetland and Orkney out of the matter. The six agreements cover a small percentage: I cannot provide the exact figure, but it is probably 10 to 15 per cent of the rivers in that area. There is an awful lot of work to do.

On compromises, the big question that we regularly meet is whether it is worth getting into an imperfect agreement and deriving certain benefits from that agreement or whether it is better to stand off, not create an agreement and not compromise. In many cases, compromises have been accepted because the benefits of a better dialogue with the industry and access to important information have been thought worth while.

Where the industry has demanded compromise to get agreements formed as a result of the operational situation in which it finds itself, the compromise may not exist when the agreement is formed, but may be an aspiration of an area management agreement and area management group. The industry has, for example, indicated a move towards synchronised production, which is a big stumbling block.

To be brutally honest, few benefits will be delivered in respect of there being a greater number of fish back in our rivers—which is where we want to head—but we are at the start of a long haul. In time, particularly if the regulatory issue is addressed and gaps in the regulations are filled, agreements can deliver.

Mr Ingram: What gaps in the regulation of the industry need to be filled by the environmental regulatory regime to which you referred? How are AMAs falling short?

Andrew Wallace: There are two key issues. One is synchronised production, which relates to farming a single-year class of stock in a given area. That allows fallow periods to be synchronised and has tremendous disease and waste management benefits. Where there are no single-year classes, there is no fallow period and no breaks in the disease cycle. Inevitably, that leads the industry to a treatment solution rather than a management solution to the problem, which is undesirable. There is a tendency for the industry to treat rather than to manage. Some form of regulatory framework is desirable to require synchronised production. That supports the industry's codes of practice, in which it is written in tablets of stone. We are not therefore talking about something that the industry would find unattractive; we are talking about something that is not happening.

The other issue is synchronisation of treatments where treatment is required. A strategic approach to treating fish health problems over a wide area would mean that there was a consistent effect to break disease cycles. If there is no strategic approach, people treat in different areas at different times, resistance problems occur, more medicines are required and the whole problem snowballs. Regulation could help in those two areas.

Maureen Macmillan: Do you agree that synchronised fallowing is difficult for small firms? The large multinationals can cope with it, but a fish farm with only a couple of cages could be bankrupted by it. Have you thought about that?

Andrew Wallace: I accept the point, which the committee will need to consider carefully.

Mr Ingram: How would voluntary codes, codes of conduct, codes of best practice and quality schemes fit in with the regulatory regime that you suggest?

Patrick Fotheringham: Under the regulatory regime, the industry must follow best available techniques to minimise environmental impact. That can include everything from current codes of practice designed to limit the spread of infectious salmon anaemia to strategic lice treatment, which involves a management solution rather than a treatment-based solution to the lice problem. Essentially, the approach is about bringing together all the industry codes of practice to manage the process of fish farming rather than simply treating the products of the farm.

Mr Ingram: Do any regulatory regimes that you know of fit the bill? Can you point to any that have been adopted in other countries? Have similar regimes been adopted in other areas of food production in this country?

Patrick Fotheringham: The best examples are the industry's own voluntary codes of practice and rules that it already has signed up to. The tripartite working group has examined those closely.

Mr Ingram: Have other countries adopted regulatory regimes that could or should be applied in Scotland?

Patrick Fotheringham: I am in no way an expert, but I believe that the Irish are looking at the problem from the other end. They count the lice; rather than pursuing strategic lice treatment of the sort that we are examining, they look at the product of farming.

The Convener: We can pursue those matters elsewhere.

Patrick Fotheringham: It is the next stage of the process.

John Scott: Should SEPA extend the discharge consent procedure to cover site management and husbandry, best practice, food quotas, feeding practice and numbers and positions of cages? Alternatively, should those aspects be introduced into the new planning regime?

Patrick Fotheringham: We suggest that the parallel structure would still be needed. Someone would still need to apply for planning consent for their farm when it was set up, but all the other environmental impacts should be examined under

a wholly flexible regime.

We are looking for the discharge consent regime to be replaced. We would be looking for an environmental consent rather than for a discharge consent under the Control of Pollution Act 1974. That is analogous to regimes that exist in other areas of agriculture in Britain. For example, the chicken farming and pig farming sectors come under the integrated pollution prevention and control regime, which examines the process rather than the product. That is what we are looking towards.

The environmental regime that we are proposing would have to deal with the size of farms, the amount of chemicals that are put into those farms, the stocking densities within those farms, the location of those farms and many other aspects. A specific discharge consent would no longer be required, but an environmental consent would be.

John Scott: Essentially, you propose a proactive planning approach to eliminate problems before they become problems.

Patrick Fotheringham: Absolutely, but in-service monitoring is also critical.

John Scott: At the moment we have an entirely reactive system, rather than a proactive system.

Patrick Fotheringham: Yes.

Maureen Macmillan: Harmonisation and the effectiveness of the current regulatory regime have been mentioned throughout the evidence. Perhaps we can get our thoughts about that clear. Is a single regulatory body for the industry feasible or desirable? If so, where should the body be located? If not, what other means of streamlining should be pursued? What legislative changes would be needed?

Patrick Fotheringham: We have for a long time pushed for a single regulatory body to cover salmon farming. We have suggested that a national fish farming authority should be set up to deal with all the issues. The Executive has come to us time and again to say that that is not possible or that it is not minded to do it. We are trying with our proposal to come up with a solution that everyone can live with.

We have suggested that the environmental regulatory responsibility should be located within SEPA, which should issue environmental consents. The critical point is that there should be a unit to co-ordinate all the other elements of regulation. That would ensure that the various regulators did not consider their own part of the problem in a vacuum; it would ensure that everything moved forward together and that each part of the regulatory process informed the others. Unless that happens, we will be propagating some of the existing problems.

Maureen Macmillan: Monitoring is very important. Are the current arrangements for monitoring, audit and enforcement robust and effective in relation to environmental protection issues, such as nutrient enrichment and the use of medicines and chemicals? Are the arrangements on planning and siting controls and on consumer protection robust enough? The guidelines exist, but does anyone pay attention to them? How best can the environmental issues be monitored, if they are not currently being monitored effectively?

Patrick Fotheringham: The answer—and I keep saying this—is that the monitoring role must be handed to a specific environmental regulator, which would be responsible for in-service monitoring of that element of the process. We do not believe that planners are equipped to carry out adequate in-service monitoring, which is a complex matter. Local planning officers, who generally go round to see whether the conditions attached to planning consents are being adhered to, are not properly equipped or resourced to do that job, which would be done more effectively through an environmental regulator.

11:15

The Convener: We have a view about why the Executive has said what it has about a single body. What is your understanding of why the Executive does not see a single body as a suitable way forward?

Andrew Wallace: It is hard to speak for the Executive on that.

The Convener: You have raised the issue with the Executive in the past, however. What responses have you received?

Andrew Wallace: I will be quite honest with the committee. I do not know why the Executive does not favour the idea. Aquaculture in all its forms is important for the Highlands and Islands. Some people claim that in a few years the industry will be significantly greater in value than agriculture. That suggests that there is an opportunity to harmonise some of the regulatory issues under one banner. We have promoted that idea steadfastly. It was proposed as early as 1996 in the salmon strategy task force report. The idea has been consistently rejected.

Maureen Macmillan: SEPA currently monitors the medicines and chemicals. Is that not being done adequately? What seems to happen is that the industry gathers the data and SEPA comes along and checks. Should SEPA, or whatever regulatory body is set up instead, have more resources to do that job?

Patrick Fotheringham: That is unquestionably right. If any of what has been proposed were to be

pushed forward, SEPA would need to be resourced to do the job properly, with personnel to monitor the situation and effective scientific back-up.

Andrew Wallace: The committee may want to find out how many times legal action has been taken against fish farmers for breach of consents and how many times consents have been revoked. If you did, I expect that you would find that the occasions were very few. I come back to my driving licence analogy. The great fear is not the fine; it is the loss of the ability to operate. Elements of the industry are keen to tackle what is called the free-rider problem.

Maureen Macmillan: That also has implications for the Procurator Fiscal Service, which must take seriously such matters as environmental acts of vandalism.

Finally, will enshrining in regulations environmental best practice risk making the industry uncompetitive due to increased compliance costs?

Patrick Fotheringham: The answer is that we are not taking an anti-industry position. The industry is operating in an extremely controversial environment. A look at the papers three times a week will show that there are continually stories about various problems that the industry has. I hope that that will force the industry to do what, in many cases, it says it is doing already, which is to follow its voluntary codes of practice. Basically, what you suggest would give mandatory back-up to that. I do not think that the industry could say that it had suddenly been put in a wholly uncompetitive position. In most cases, the industry says that it is already taking most of those measures.

Doug McLeod: The salmon farming industry has to get a grip on what it is trying to do. In my view, it has been competing in the wrong market. Because it has followed the commodity market price downwards, it is always on a losing wicket. It is reckoned that, at the moment, no salmon farmer in Scotland is making any money. If the price keeps being chased down, the industry will continue to be in that position. Our production costs will never be lower—or, in my view, even equal to—the costs of production in Norway and Chile, our two main competitors. The industry should go out of its way to get hold of the best practices and to promote itself as selling the best salmon.

To do that, Scottish salmon farmers must reverse the current position of sticking with the deep-water producers of Norway and Chile, who can always out-compete them. If I were a salmon farmer, I would want to adopt the best practices, obtain a seal of approval from environmental

bodies—statutory bodies and non-governmental organisations—and double my price. That is the only way in which Scottish salmon farmers will make any money. They must change their mindset.

John Scott: Should not a Government agency perhaps be created to deal with the regulation and promotion of fish farming—something similar to SEERAD's role for agriculture? Dare I say it, a whole bureaucratic infrastructure might be needed to develop the industry.

The Convener: Your party managers will be looking at that question closely, Mr Scott.

John Scott: I am not saying that there should or should not be such an agency. I am just seeking views on the issue.

Patrick Fotheringham: It is worth saying that SEERAD appears to be hugely under-resourced and understaffed. It might be stretching things thinly to hive off half of SEERAD into a separate department.

That takes us back to the issue of a single regulatory authority. We have repeatedly proposed a national fish farming authority to cover just about everything that the industry would want to do, but that proposal has repeatedly been turned down. We hope that a single regulatory authority represents a solution with which everyone can live.

Mr McGrigor: I want to deal with AMAs. I was worried about what you said in your paper about the agreements being

“essentially private, secret deals that are shrouded in commercial confidentiality.”

You also said:

“It has been extremely worrying to see how over reliant on AMAs the Scottish Executive has become. Indeed, in a recent decision taken on a fish farm at Ardesie, the TWG/AMA process was put forward as a reason for granting the consent!”

It seems appalling that consent should be given when people do not know the facts, because most of them are confidential. What is the answer to that?

Patrick Fotheringham: The answer is precisely our point—the regime that we have proposed.

The Convener: We keep returning to that point.

As there are no further questions, I thank the witnesses for their evidence today and for their written evidence. It has been a useful session and we have made a good start to our inquiry.

I invite our second group of witnesses to join us. It will be a quick changeover. Representing Scottish Environment LINK are Darren Kindleysides, policy officer with RSPB Scotland,

Alistair Davison, marine policy officer with WWF Scotland, and Richard Luxmoore, nature conservation officer with the National Trust for Scotland.

I welcome you to the committee. I hope that you have seen that giving evidence is not such a painful process after all. We will try to keep things as informal as possible. Fiona McLeod has joined us late and is sitting at the other end of the table, but I remind members that she is not a witness. I extend a warm welcome to her.

I understand that the witnesses will make some opening remarks, after which we will ask questions.

Darren Kindleysides (Scottish Environment LINK): We will try to be brief. I thank the committee for inviting member bodies of Scottish Environment LINK's marine task force to give evidence in the inquiry into the aquaculture industry. I am from RSPB Scotland, Alistair Davison is from WWF and Richard Luxmoore is from the National Trust for Scotland. We are pleased to give evidence on behalf of our individual organisations and on behalf of the marine task force. I shall provide some additional information to support the written evidence that Scottish Environment LINK and our member bodies have provided.

The Scottish aquaculture industry has developed in an unstrategic and unplanned way since its beginnings in the late 1970s. That has led to impacts on the marine environment and conflict with other uses of coastal waters, such as fishing, tourism and recreation. We now want an aquaculture industry that is right for Scotland, which maximises the benefits to local communities, provides opportunities for sustainable jobs and investment and—above all—operates within the carrying capacity of the marine environment. We ask the committee to note five key challenges that we have identified, which must be met if we are to see that vision realised.

First, the concept of carrying capacity must become central to the development of the aquaculture industry in Scotland. Without an understanding of the carrying capacity of our coastal waters for fish farm developments, it is impossible to say whether the industry is sustainable. With many rural jobs in coastal constituencies dependent on the long-term viability of the industry and the health of the marine environment, the carrying-capacity question must be answered urgently.

Secondly, we feel that it is important to improve the quality of environmental impact assessment. The EIA process is intended as a safety net to ensure that inappropriate developments do not go ahead. Generally, the quality of EIA for fish farm

developments falls below the standard of EIA for land-based developments. We are calling for the holes in the EIA net to be patched, for example, by the introduction of quality control mechanisms for EIA.

Thirdly, there must be review, reduction, relocation and revocation. There must be a review of existing fish farm leases and discharge consents. Farms that are found to be inappropriately located may require tonnage reduction, relocation or even the revocation of their licences. Those could include farms that are located near the mouths of wild salmon rivers or in areas where the carrying capacity has been exceeded.

Fourthly, we want alternatives to the system of area management agreements to be investigated. We recognise that AMAs are a step in the right direction, but we feel that they are flawed, as they lack teeth—as we have heard—transparency, representation and consistency. They could represent a dangerous blind alley in our search for a sustainable management framework for Scottish aquaculture. We recommend that, as an alternative, regional aquaculture management groups should be established. Those groups would develop forward plans for the aquaculture sector on a production-area basis. The plans would seek to introduce aspects of the precautionary principle, integrated coastal zone management and integrated pest control. They would be developed in consultation with the broadest base of local stakeholders.

Fifthly, we are concerned that the mistakes that have been made in the development of the salmon farming industry should not be repeated in the emerging cod and haddock farming industries. The diversification of fish farming into white fish species serves to underline the need for a planned approach to the future of the Scottish aquaculture industry. We feel that the inquiry must call on the Executive to answer key questions before expansion of the industry is given the green light. What are the likely environmental impacts of cod and haddock farming? What are the potential conflicts with marine fisheries and fishermen? Can the required quantities of feed be sourced sustainably? Ultimately, the development of new fish and shellfish species must be subject to strategic environmental assessment before it progresses.

11:30

The environmental non-governmental organisations have been involved in the debate surrounding the future of salmon farming in Scotland for many years and on many fronts—as coastal and river island landowners and land managers and through work with the decision

makers in the industry. It is five years since Scottish Environment LINK's landmark publication, "Leaping in the Dark: A Review of the Environmental Impacts of Marine Salmon Farming in Scotland and Proposals for Change", laid open the environmental impacts of the industry and laid down the challenges for moving fish farming to a sustainable footing. More recently, LINK member bodies have supported the cause for an inquiry into fish farming.

We congratulate the committee on persevering with an inquiry despite the Executive's rejection of a full public inquiry. We urge the committee to ensure that the Executive does not slip easily off the hook. The conclusions of the rolling inquiry must not be allowed to be ignored in the way that the Executive ignored the committee's calls for an inquiry.

We feel that the Executive's review of regulations and the Scottish aquacultural strategy are welcome initiatives, but their development must be open to full public scrutiny. Their outcome must not be simply a tweaking of the status quo. We ask the committee to press for the real changes that are needed if the fish farming industry is to be put on the path of truly sustainable development.

I thank the committee once again for asking us to provide evidence. We are happy to answer any questions and will be as brief as possible.

The Convener: Thank you for your opening remarks, which were helpful in outlining the context in which we find ourselves. The Executive does not ignore us once we have reported. As I said at the start of the meeting, we have a good track record with our findings.

Robin Harper: Good morning. I would like to pick up on the last of the bullet points before asking two other related questions.

Do you have any observations on the worldwide sustainability of fish farms in relation to the sourcing of fish feed?

Dr Alistair Davison (Scottish Environment LINK): The issue is growing in importance and will continue to grow. Recent work in America shows that eight of the world's top 20 fisheries go straight to fishmeal. Of that fishmeal trade, 30 to 40 per cent goes straight to aquaculture and that percentage is rising. A lot of the fishmeal comes from developing countries and real question marks hang over the management and sustainability of the fisheries.

Robin Harper: From our consultations in the past month, it seems that agreement is growing that an assessment of the environmental carrying capacity of Scottish coastal waters is needed. What work do you believe needs to be undertaken

to assess carrying capacity?

Dr Davison: Carrying capacity, or the ability of the environment to cope with the demands that aquaculture places on it, is absolutely fundamental to the sustainability of the industry. Carrying capacity operates at a number of levels—the footprint round particular cages at a production area or a sea loch where there is cumulative impact from a number of farms. At national level, there are issues such as eutrophication and toxic algal blooms.

A range of work has to be considered and carried out. In Europe, the strategic environmental assessment process examines the ability of the environment to cope with particular activities, the legislative tools that we have to deal with them and their social impact. We need to apply that process to the fish farming industry. There is a precedent for that in the strategic environmental assessment that the Department of Trade and Industry was carrying out in relation to the offshore marine environment. Feedback suggests that it is a very good process.

Scotland has probably one of the best-studied marine environments in the world, but it is a bit of a double-edged sword, because we have to be able to draw together all the information on our resources. Carrying capacity has been discussed since the 1970s, but progress has not been made on the research that has been done. The Natural Environment Research Council is carrying out some work, but it is yet to report. The building blocks are there, but we have a lot of work to do on the assessment of carrying capacity, both by area and nationally. The strategic environmental assessment route is a good one.

Darren Kindleysides: I liked the description of carrying capacity studies as black arts; perhaps we should commission Harry Potter's Professor Snape to undertake those studies.

We have drawn up a list of issues that we feel should be considered to help us to define carrying capacity for our coastal waters, sea lochs and voes. I will run through our five priorities: nutrient enrichments; the smothering of sea bed habitats and associated impacts on biodiversity; the bio-accumulation of toxic chemicals used in fish farms; the spread of diseases to wild fish; and escapes.

Robin Harper: It has been suggested that, until questions of carrying capacity can be answered, there should be a moratorium on new consents for salmon farming. I know that the witnesses have expressed views on that before—and carefully—in relation to large-scale farming. How should a moratorium be managed?

Dr Davison: In our recent report, "Bitter Harvest: A call for reform in Scottish aquaculture", we call for a moratorium on large-scale expansion.

There are two reasons for that, one of which I can come back to. The other reason is this: we must avoid a gold rush of speculative applications such as we had in the late 1980s when regulations were introduced. If the strategy is to put the industry on a sustainable footing, it is important to avoid a gold rush.

If we are trying to reduce pressures and to work within the carrying capacity of an area, we should consider very carefully before permitting large-scale developments. WWF is calling for a moratorium because we are concerned about the lack of consideration of carrying capacity in the current regulatory system. We cannot be confident that further development will not cause collateral damage to the marine environment, which supports many other sectors.

The Convener: I presume that the size and scope of a development will depend on the capacity of the location; developments must be proportionate to what the environment can sustain. You are not putting a figure on the size of the development—it depends on the location.

Dr Davison: Yes; it depends on the location. A precautionary approach should always be taken when considering whether an application would exceed the carrying capacity available. At the moment, we think that pretty much all applications will exceed the capacity.

Darren Kindleysides: There are two ways of considering a moratorium; they were touched on by previous witnesses. One way would be to say that we do not want any further large-scale expansion of the industry; the other would be to treat a moratorium as a pause for thought. The industry is at a crossroads. Will it take the sustainable path or not? Until we understand carrying capacity, and until we have a real understanding of the environmental impact of the industry, holding back and pausing for thought may be valuable. That may provide the impetus for legislation relating to the transfer of planning powers.

Maureen Macmillan: In the previous evidence session, concern was expressed that a moratorium might mean that a fish farm in an inappropriate site could not be moved to a more appropriate site. Will you comment on that?

Dr Davison: I take that point. We are calling for a moratorium so that we can have a pause for thought—as Darren Kindleysides said. We do not want to stand in the way of initiatives that would alleviate pressure on the environment and remove or relocate sites that exceed local carrying capacity.

The Convener: The subject of planning powers was raised and I ask Bristow Muldoon to comment on that.

Bristow Muldoon: First, I note that Scottish Environment LINK has broadly welcomed the consultation on the proposal to transfer planning powers to local authorities. I recognise also that you identify the need for local authorities to be supported by additional resources so that they can deliver those functions. Can you expand on what benefits you see coming from such a transfer? What are the implications of further delay in the proposed transfer? What specific support do local authorities need to make their powers applicable to marine fish farming?

Darren Kindleysides: I confirm that we support the idea of moving planning powers to local authorities and—to answer to your first question—we think that that will provide a wide range of benefits. Local authorities seem to be the logical resting place for the development control aspects of fish farming, because they are plugged into the networks of local consultation and local democracy. They also have the tool of local plans for forward planning and can take account of planning policy and the drive for sustainability.

We perceive three real challenges: resources, training and guidance. We back the calls made earlier for the NPPG to support the planning role of local authorities. There is also a need to build up the competence of local authorities to deal with matters offshore—areas that they have not previously dealt with. Training will be important in that respect, for example knowing what to look for when dealing with the EIA for fish farming. Resources will underpin both those areas—staff who can execute the development control function in the marine environment.

I am unsure what your question was about benefits and specific support.

The Convener: It was about the impact of a delay in going down the local authority route.

Darren Kindleysides: We should perhaps look back over the past five years for evidence of the impact of delay. The transfer of planning powers from the Crown Estate to local authorities was first floated by the Scottish Office in 1997. I believe that, at the start of the 1990s, there was a committee of inquiry in the House of Lords, which also came up with that recommendation. We regard that transfer of powers as a priority. The question is where the legislative opportunity lies. Perhaps it will be in the water environment bill. We encourage the committee to ask the Executive how legislation for the transfer of planning powers to local authorities can be introduced.

Bristow Muldoon: I am grateful to the convener for remembering my middle question. I was struggling to do so.

I have a supplementary question. Once such a planning regime is established, what action should

be taken about existing leases? Should they be brought into the new framework? If so, how should they be brought in?

Dr Davison: Yes. They should be brought into the new framework. There is discussion, as we heard from the earlier panel, about whether the leases and consents should be brought into the framework as they come up for review, or to a more rapid timetable. We must be aware that some fish farm leases might run for 15 years. Our view is that it would be useful to have a timetable for review. An analogous example is the review of consents required under the habitats directive in the marine environment. That process might be further developed and we could perhaps learn from it.

Darren Kindleysides: I add to that ROMPS—a new acronym, which stands for review of mineral permissions. There are two lessons from ROMPS.

The Convener: Are you back to Harry Potter again? [*Laughter.*]

Darren Kindleysides: ROMPS ties in with the Environment Act 1995, which required local authorities to review existing mineral permissions.

The good lesson to learn from the review is that local authorities said that they could not do everything at once and that, if they were to review all permissions, the work would have to be phased and prioritised with times and targets. They prioritised by starting with the oldest permissions and those that related to the most sensitive areas—the special areas of conservation and special protection areas that are the jewels in our nature conservation crown.

The bad lesson to learn from the review is that local authorities were given the bill for any compensation that was paid to developers if permissions were revoked. In practice, that led to very few permissions being revoked, even if the environmental case for revocation was outstanding.

With the habitats regulations and similar reviews of permissions, the money to tackle any compensation that is required has come from central Government. If we are to go down the route of reviewing existing permissions, which I believe we should, the resources need to come from central Government.

11:45

Nora Radcliffe: You alluded to the planning process. You may want to expand on how we can achieve a proper balance between national guidance and what could be described as local solutions for local problems.

Dr Davison: Thank you for raising that central

point. The Scottish Executive is developing a very welcome national strategy for aquaculture guidance. We would like a model in which that strategy provides a suite of common standards and principles that would have to be applied on the ground to make a real difference. We want regional aquaculture management groups that are not area management agreements but are new groups charged with the existing duty of developing aquaculture framework plans to map out the evolution of aquaculture in different sea loch or production areas. The advantage of that approach is that, given the right statutory or policy impetus, we could address a lot of the issues of transparency and could include the views of local communities and other sectors. That would allow us to start learning from the terrestrial planning system and to apply the rudiments of that system to obvious, open, transparent planning for the aquaculture industry, taking on board the views of other sectors. It is fundamental, but quite exciting.

Nora Radcliffe: How appropriate and effective is the implementation of current environmental impact assessments? Does there need to be a less rigorous environmental study when a full EIA is not required? Who should be the competent authority with regard to environmental impact assessments?

Darren Kindleysides: As we mentioned in our opening statement, we feel that the standard of EIA for fish farms could do with improvement. RSPB Scotland is fortunate enough to have a network of local staff working on cases of all sorts throughout Scotland. Just this year, I have reviewed some of the environmental statements from fish farms, and the impact of fish farming seems to be discussed in generic terms. Most worryingly, they do not discuss the issue of cumulative impact, which is a major weakness of the EIA system as it stands. Environmental statements should be prescriptive in relation to the mitigation that is required. In effect, the EIA process approves a development with certain conditions attached. Most of the conditions are not spelled out in environmental statements for fish farms.

We feel that the environmental statements could do more to address the wider environmental impacts of fish farming. I have yet to see an environmental statement that mentions the potential impacts of bio-accumulation on bird species or other biodiversity species. For example, the sea eagle, a very rare bird in Scotland, feeds on fish that themselves forage around cages. We would expect the issues of bio-accumulation and potential toxicity for sea eagles to be addressed, but they are not.

Because of the European EIA directive, we cannot have shades of EIA, but we can have

scoping for EIA. Scoping picks up the areas and the big issues that need to be addressed. It helps to focus on the issues. It streamlines the process and reduces the resources that are required in environmental impact assessments. Scoping allows a range of bodies to get involved at the outset. One of the weaknesses of the current development consent procedures, including EIAs, is that a broad range of organisations are not consulted. Mandatory scoping for environmental statements for fish farming would be an interim step.

Nora Radcliffe: Have you a view on what the competent authority should be?

Darren Kindleysides: In time, we would expect it to be the local authorities, because of their role in development consents. We would expect them to consult fully with other statutory bodies. There would be a major role for SEPA and Scottish Natural Heritage.

John Scott: As you will be well aware, the Executive is reviewing the locational guidelines. How can the guidelines be made more transparent and user-friendly? Should they differentiate between the needs and impacts of shellfish farming, salmon farming and the farming of other marine species such as cod and halibut?

Darren Kindleysides: Transparency is an issue, but the bigger issues include the need to strengthen the locational guidelines and to build into the guidelines an understanding of carrying capacity. There are some good examples from overseas. As might have been mentioned by witnesses earlier, Norway has introduced statutory zoning for its fish farming. One of the weaknesses of the locational guidelines is that they are just that—guidelines. They have no statutory basis. We have seen the guidelines being ignored on several instances, including in the Firth of Lorne, which is a marine SAC.

Under the locational guidelines, the Firth of Lorne is a category 2 area. That means that, as long as there is a net benefit to the environment, it is okay to expand fish farms. At the moment, the Firth of Lorne is something of a test case. Sensitive proposals have been made to extend the fish farm. It is hard to see how that could lead to a net environmental benefit. We require some form of statutory backing, perhaps through NPPGs, as that might provide the transparency needed in the case of fish farming.

Dr Davison: Darren Kindleysides has highlighted the problem of the application of locational guidelines at a local level. Had a regional approach been taken to the planning of aquaculture in the Firth of Lorne area, the views and aspirations of the local community would have been heard. In the Firth of Lorne area, sectors that

rely on the marine environment to make a living from tourism object strongly to the fish farm expansion. Had a regional approach to planning been taken, a proactive plan could have been drawn up that would have mitigated the impact before it began.

Dr Richard Luxmoore (Scottish Environment LINK): Earlier, it was asked whether the guidelines should apply differently to salmon farming, shellfish farming and new species farming. The answer is that they should. The previous witnesses highlighted the difference between shellfish farming, and salmon and other fin fish farming. In many cases, they are diametrically opposite. However, some environmental impacts of shellfish farming need to be taken into account in the locational guidelines.

We need to examine carefully the new species of fin fish that are used in aquaculture. In the late 1970s, I was involved in the salmon farming industry. At that point, many of the problems that we now see were not envisaged. The farming industries for halibut and cod are now at the stage that the salmon farming industry was at in the late 1970s. In 15 years, if the cod and halibut industries have been developed, we can be certain that they will be making an unpredicted impact on the environment.

It is not possible to cater for unpredicted impact, but it is possible to predict that a number of impacts will arise. It is almost certain that diseases of intensive aquaculture will develop in the cod and halibut industries and that those diseases will transfer to the wild population. It is almost inevitable that developing major industries for those new species will have an impact on wild fisheries and wild fish stocks. It is obvious that locational guidelines must take that into account.

Mr McGrigor: Doug McLeod used Loch Etive as an example. Would not any survey of carrying capacity need to take on the fact that the salinity, depth and other properties of each sea loch are different? Would many lochs have to be surveyed? Would each loch require its own survey?

Dr Luxmoore: Carrying capacity is complex and depends on the aspects of carrying capacity that are being considered. The carrying capacity of a road could involve the number of vehicles that pass on it per minute, the tonnes of carbon dioxide that are emitted or the amount of particulate carbon that is emitted. Each of those aspects would have different measures and require different studies before the carrying capacity could be determined.

As we said, the carrying capacity of sea lochs is sometimes a local issue. We talked about smothering the environment on the sea bed around sea cages, which is a local issue. Diffuse

pollution and nutrient enrichment of the surface waters are regional issues, because their effects can be seen in the whole western seaboard of Scotland and extend to Orkney and Shetland. A much broader view of carrying capacity and locational guidelines is required.

Dr Davison: I accept that we must obtain much more information about the marine environment before we make judgments about carrying capacity. The project in Loch Etive is welcome. The risk always exists of overstudying and over-egging the pudding. The marine environment has been reasonably well studied. We could benefit from consideration of and research into a pragmatic approach that we can operationalise relatively quickly to bring precautionary carrying capacity judgments online.

Mr McGrigor: In that case, can sea cage farmers take any practical measures to increase a loch's carrying capacity without causing damage?

Dr Davison: The answer is location, location, location. The environmental parameters around a farm must be considered, married to the sensitivity of the marine environment. We have reasonable information about the relative sensitivities of the marine environment. If that were put together with the physical mixing of parameters—or water movement—we could start to make reasonable judgments.

Mr McGrigor: Would it make a difference if the detritus that falls on the sea bed could be hoovered out?

Dr Luxmoore: Technical measures can be introduced to cope with many problems. As you say, a system could be introduced—I do not think that such a system has been introduced, although it would be technically feasible—to capture the faeces and uneaten food that falls below cages. I suggest that that should be captured before, rather than after, it hits the sea bed. Such a system would add greatly to the cost of fish farming and I am sure that fish farmers would argue that it would be uneconomic, but it is technically feasible. Another solution is to bring farms on to land and process the waste as is done with intensive pig units. A technical solution could be produced.

Maureen Macmillan: I will backtrack to Richard Luxmoore's comments on fish disease. You said that if we started to farm new species of fish, such as cod or halibut, diseases would be inevitable. Are you being too pessimistic? After the infectious salmon anaemia outbreak, an inquiry was held and a working group was established that wrote a strategy on best practice to deal with diseases. There has not been an outbreak of ISA since 1999. Do you not feel that we have progressed since then and that we could cope with diseases that might appear in new species?

Dr Luxmoore: We will undoubtedly be able to cope with some of the diseases that arise. We have so far failed to deal with sea lice, which is the most serious salmon disease. That has almost certainly been responsible for the extinction of wild salmon in several rivers up the west coast of Scotland. As you say, ISA did not turn out to be as bad as we expected it would, but many diseases such as ISA and infectious pancreatic necrosis were unheard of in 1975 when the salmon farming industry started and were obviously not expected to be problems.

12:00

It is inevitable that when one starts farming any fish species intensively, disease problems will develop and it will be possible to cope with some of those problems. It is also inevitable that, if the farm is within disease-transmission range of wild fish, the disease will be transmissible. I hardly need to remind people at a time when we are recovering from a foot-and-mouth disease epidemic of the awful consequences of diseases breaking out in intensive agriculture. The same danger is present to a greater extent in intensive aquaculture. In the countryside, we no longer have aurochs, wild boar and wild sheep, which are the immediate relatives of domesticated species but, in the sea, the immediate relatives of the farmed fish exist and, more important, are economically essential as we have a major fishing industry. Disease could have a huge impact on that sector.

Maureen Macmillan: Have husbandry practices improved since the outbreak of ISA or are we in the same position we were in when the aquaculture industry started?

Dr Luxmoore: Husbandry practices have improved.

Mr Ingram: What have the area management agreements and the tripartite working group achieved? Would a regulatory regime involve the pulling together of all the various voluntary codes and best-practice schemes on a mandatory basis or are there other gaps that need to be filled?

Darren Kindleysides: We view area management agreements as a step forward. They have brought the interests of the wild fisheries together with those of the fish farms. As Patrick Fotheringham mentioned, they have highlighted gaps in the current regulatory regime. We also think that they have highlighted some of the weaknesses in the voluntary system.

However, they have shown that we cannot rely on the voluntary approach to managing the fish farming industry. Few industries rely on the voluntary approach. There will have to be a carrot-and-stick approach but the question is how the stick should be designed. I agree that we have a

lot to learn from the environmental management systems and the associated codes of practice. Perhaps the answer is to transfer the best practice from other systems into a statutory system to set out minimum standards for the management of fish farms. Translating best practice into statute would give the codes some teeth.

Dr Davison: The voluntary approach is fundamentally flawed because it has no statutory backing and does not involve everyone in the sector. We need to remember that aquaculture takes place in the busiest parts of the sea, which are important to other sectors. Without the transparent and inclusive approach that statutory control would deliver, it will be difficult for the other sectors to have their say.

The Convener: On that point, the previous witness said that we should stop the free riders.

John Scott: Should the discharge consent procedure be extended by SEPA to include site management, husbandry, best practice, food quotas, feeding practice and numbers and position of cages?

Dr Davison: The short answer is yes. We welcomed the fact that the Scottish Executive's review of regulation gave consideration to that. One of the difficulties that SEPA has faced, apart from being under-resourced, is a legislative structure that is pretty good at dealing with stuff that comes out of the end of a pipe—clearly, fish farming does not. We need to give SEPA opportunities to address those big issues, particularly by including process within its discharge consents and stipulations. We regard the feed quota as a good example of that, which would favour the efficient and careful farmer.

Maureen Macmillan: We know what your answer will be to this question, but I would like you to sum up your views. Do you think that one regulatory body for the aquaculture industry is feasible or desirable? If so, where should such a body be located?

Darren Kindleysides: I do not know what answer you are expecting. It may be feasible to create one body, although it is not necessarily desirable—or necessary. What is needed is closer co-operation and links between the different regulatory bodies. There is no better example than the development consent and the discharge consent, which should be considered together.

There is a strong argument for bringing all regulation under one roof. One of the weaknesses of the current system is that it does not allow the cumulative force of fish farm developments to be considered at the same time. That it is a gap in the EI net that we mentioned earlier.

I am not certain whether creating a single body

might be too difficult or stand in the way of making real progress in bringing different regulatory bodies closer together. Our priority is to see the development and discharge consents brought together under a joint application process, so that they can be determined together by SEPA and, in the future, the local authority.

Maureen Macmillan: Will that require legislative changes?

Darren Kindleysides: Yes, it will. SEPA's role and remit will come under scrutiny under the proposed water environment bill and its remit will be extended to deliver the water framework directive. That will provide an opportunity to bring SEPA closer to the development consent body. The local authorities have yet to receive the planning power relating to fish farming, but that opportunity could be used to establish the joint application process.

Maureen Macmillan: Let us consider the current arrangements for monitoring, audit and enforcement. Are they robust enough on environmental protection issues, such as nutrient enrichment and the use of medicines and chemicals?

Dr Davison: Monitoring and enforcement are a major shortfall in the aquaculture industry, particularly in fish farming. There are about 350 fish farms around Scotland and SEPA has increased monitoring to include about 50 of those. You raised the issue of eutrophication and its impact on Scotland's water quality. There is the national marine monitoring programme, which is UK-wide, but Scotland has only one sampling site, off the west coast. Monitoring has to improve. What are the chances of being caught? The chances of a fish farm being caught are fairly low.

We need to fill the gap between environmental monitoring and food safety monitoring. Real opportunities exist for streamlining, synergy and complementary work between the two sectors. Clearly, the toxic tides that are closing large areas of the scallop fishing industry may be linked to aquaculture and are certainly linked to eutrophication. There is a role and remit in that for the Food Standards Agency.

Darren Kindleysides: I will only add a mention of the role of a good EIA in relation to monitoring and enforcement. A good EIA equals a good basis for monitoring. The EIA, as I mentioned previously, should set out conditions. The monitoring of compliance with any mitigation measures that are put in place is very poor. The EIA should also stipulate a programme of continued environmental surveillance to pick up any unforeseen impact of the development.

At the bottom of monitoring is the matter of resources. Resource limitations are probably

behind the poor standard of monitoring and enforcement.

Maureen Macmillan: Similar issues of monitoring arise when planning and siting controls and consumer protections are considered. We also need to address sanctions. If somebody is caught not doing what they should be doing or doing something that they should not be doing, do we have sufficient sanctions to bother them?

Dr Davison: I could not agree more. The earlier witnesses made an analogy with the driving licence. We endorse that.

The other side to the matter is the sheer complexity of the different bodies that have a monitoring and enforcement role in the aquaculture industry. It would be interesting to examine through the Scottish Executive's strategy and through the inquiry what opportunities exist for better communication and joint working between those different bodies to try to streamline their functioning.

Darren Kindleysides: We should not forget that good practice exists in the fish farming industry. All too often, environmental bodies give the impression of tarring the entire industry with the bad-practice brush. That is far from the case. Where good practice exists, we should reward it. As well as considering sanctions for bad practice, perhaps we should consider and encourage incentives for good practice.

Robin Harper: I believe that about 15 per cent of the Aquascot Group's total production is now organic. How do you expect that organic salmon production at the top end of the market will develop in the future?

Dr Davison: Again reflecting the views of the earlier witnesses, I think we need to encourage the industry to consider what sort of product it wants to provide. In Scotland, we have the magnificent resource of a marine environment with extremely high environmental quality. We have an industry that shows signs of damaging that environment, whereas we should encourage the industry to use the environment as an asset and to concentrate on a high-end, quality product that is produced in an environmentally and socially responsible way. The move towards organic production is part of that.

Maureen Macmillan: Enshrining environmental best practice in regulations is all very well and laudable, but what if the industry goes bankrupt because of it? Do you foresee that the costs of environmental compliance might just be too great?

Dr Luxmoore: That question is essentially a matter of externalising costs. The industry has been able to appropriate the benefits of producing farmed fish while externalising many of the

environmental costs. It does not pay for those costs. Somebody else pays for them implicitly or will do so at some time in the future. In accordance with the principle of "the polluter pays", one hopes that those costs will somehow be brought back into the industry.

As you implied, that will inevitably make the industry struggle to be competitive and to make a profit. On one hand, one could say that that is just the way of the economic world. On the other hand, the way to deal with that would be to introduce other forms of economic incentive to the industry that would compensate for the struggle in a way that would help to offset some of the environmental costs.

The Convener: There are no other questions. I therefore draw the session, which has been successful, to a close. I thank the witnesses for coming. We appreciate not only the evidence that you have given to us today but that submitted to us in writing in advance. Our inquiry is off to a good start. Thank you for contributing to that process.

That concludes our first session on the aquaculture inquiry. We will return to the subject on Monday 26 November, when our second evidence-taking session will take place.

I thank the press and public for their interest in this morning's proceedings. We now move into private session for the final item on our agenda, which is consideration of a draft report on stage 1 of the Water Industry (Scotland) Bill.

12:15

Meeting continued in private until 13:30.

Members who would like a printed copy of the *Official Report* to be forwarded to them should give notice at the Document Supply Centre.

No proofs of the *Official Report* can be supplied. Members who want to suggest corrections for the archive edition should mark them clearly in the daily edition, and send it to the Official Report, 375 High Street, Edinburgh EH99 1SP. Suggested corrections in any other form cannot be accepted.

The deadline for corrections to this edition is:

Thursday 29 November 2001

Members who want reprints of their speeches (within one month of the date of publication) may obtain request forms and further details from the Central Distribution Office, the Document Supply Centre or the Official Report.

PRICES AND SUBSCRIPTION RATES

DAILY EDITIONS

Single copies: £5

Meetings of the Parliament annual subscriptions: £350.00

The archive edition of the *Official Report* of meetings of the Parliament, written answers and public meetings of committees will be published on CD-ROM.

WHAT'S HAPPENING IN THE SCOTTISH PARLIAMENT, compiled by the Scottish Parliament Information Centre, contains details of past and forthcoming business and of the work of committees and gives general information on legislation and other parliamentary activity.

Single copies: £3.75

Special issue price: £5

Annual subscriptions: £150.00

WRITTEN ANSWERS TO PARLIAMENTARY QUESTIONS weekly compilation

Single copies: £3.75

Annual subscriptions: £150.00

Standing orders will be accepted at the Document Supply Centre.

Published in Edinburgh by The Stationery Office Limited and available from:

The Stationery Office Bookshop
71 Lothian Road
Edinburgh EH3 9AZ
0131 228 4181 Fax 0131 622 7017

The Stationery Office Bookshops at:
123 Kingsway, London WC2B 6PQ
Tel 020 7242 6393 Fax 020 7242 6394
68-69 Bull Street, Birmingham B4 6AD
Tel 0121 236 9696 Fax 0121 236 9699
33 Wine Street, Bristol BS1 2BQ
Tel 01179 264306 Fax 01179 294515
9-21 Princess Street, Manchester M60 8AS
Tel 0161 834 7201 Fax 0161 833 0634
16 Arthur Street, Belfast BT1 4GD
Tel 028 9023 8451 Fax 028 9023 5401
The Stationery Office Oriol Bookshop,
18-19 High Street, Cardiff CF1 2BZ
Tel 029 2039 5548 Fax 029 2038 4347

The Stationery Office Scottish Parliament Documentation
Helpline may be able to assist with additional information
on publications of or about the Scottish Parliament,
their availability and cost:

Telephone orders and inquiries
0870 606 5566

Fax orders
0870 606 5588

The Scottish Parliament Shop
George IV Bridge
EH99 1SP
Telephone orders 0131 348 5412

sp.info@scottish.parliament.uk

www.scottish.parliament.uk

Accredited Agents
(see Yellow Pages)

and through good booksellers