



The Scottish Parliament
Pàrlamaid na h-Alba

Official Report

RURAL AFFAIRS, CLIMATE CHANGE AND ENVIRONMENT COMMITTEE

Wednesday 13 August 2014

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**RURAL AFFAIRS, CLIMATE CHANGE AND ENVIRONMENT COMMITTEE
22nd Meeting 2014, Session 4**

CONVENER

*Rob Gibson (Caithness, Sutherland and Ross) (SNP)

DEPUTY CONVENER

*Graeme Dey (Angus South) (SNP)

COMMITTEE MEMBERS

*Claudia Beamish (South Scotland) (Lab)

*Nigel Don (Angus North and Mearns) (SNP)

*Alex Fergusson (Galloway and West Dumfries) (Con)

Cara Hilton (Dunfermline) (Lab)

*Jim Hume (South Scotland) (LD)

*Angus MacDonald (Falkirk East) (SNP)

*Dave Thompson (Skye, Lochaber and Badenoch) (SNP)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Lloyd Austin (RSPB Scotland)

Mick Borwell (Oil & Gas UK)

Ross Dougal (Scottish Fishermen's Federation)

Calum Duncan (Marine Conservation Society)

Professor Bob Furness (MacArthur Green)

Professor Phil Hammond (University of St Andrews)

Jenny Hogan (Scottish Renewables)

Dr Mike Tetley (Whale and Dolphin Conservation)

CLERK TO THE COMMITTEE

Lynn Tullis

LOCATION

The James Clerk Maxwell Room (CR4)

Scottish Parliament

Rural Affairs, Climate Change and Environment Committee

Wednesday 13 August 2014

[The Convener opened the meeting at 10:04]

Marine Protected Areas

The Convener (Rob Gibson): Good morning, everybody, and welcome to the 22nd meeting this year of the Rural Affairs, Climate Change and Environment Committee. Before we move to agenda item 1, I remind everyone to switch off mobile phones and other electronic devices, although clerks and witnesses may use digital devices for the benefit of their contribution to today's business. We have apologies from Cara Hilton.

Agenda item 1 is on the Scottish Government's designation of marine protected areas. The committee will take evidence from stakeholders in a round-table format. The sound is dealt with automatically, so there is no need to press any buttons. It will be noticed if you identify yourself as wishing to speak: stick up your hand and we will put you on the list. I will try to bring in as many people as possible.

Unfortunately, Professor Laurence Mee, the director of the Scottish Association for Marine Science at the University of the Highlands and Islands, has been taken badly ill and will not be here today. We received that information only yesterday and have sent our condolences. We are sorry that he is not able to take part, as the scientific point of view is an important element in our discussion.

I ask people to introduce themselves as we go round the table, starting with Lloyd Austin.

Lloyd Austin (RSPB Scotland): I am head of conservation policy for RSPB Scotland.

Nigel Don (Angus North and Mearns) (SNP): I am the MSP for Angus North and Mearns.

Professor Bob Furness (MacArthur Green): I retired from the University of Glasgow about three years ago, although I am still listed as being from the university on the committee papers. I now work for MacArthur Green, an environmental consultancy, and I am also a member of the board of Scottish Natural Heritage.

Claudia Beamish (South Scotland) (Lab): I am a South Scotland MSP and shadow minister for environment and climate change.

Dr Mike Tetley (Whale and Dolphin Conservation): I represent Whale and Dolphin Conservation and also a new International Union for Conservation of Nature task force on marine mammal protected areas.

Dave Thompson (Skye, Lochaber and Badenoch) (SNP): I am the MSP for Skye, Lochaber and Badenoch.

Mick Borwell (Oil & Gas UK): Good morning, everybody. I am the environment director with Oil & Gas UK. We are the representative body for the upstream oil and gas industry in the UK. We represent 460 companies, including operators and those in the supply chain.

Calum Duncan (Marine Conservation Society): Good morning, everybody. I am the Scotland programme manager for the Marine Conservation Society and convener of Scottish Environment LINK's marine task force.

Alex Fergusson (Galloway and West Dumfries) (Con): I am the MSP for Galloway and West Dumfries.

Jenny Hogan (Scottish Renewables): I am the director of policy at Scottish Renewables.

Jim Hume (South Scotland) (LD): I am an MSP for South Scotland.

Professor Phil Hammond (University of St Andrews): I am from the sea mammal research unit at the University of St Andrews.

Angus MacDonald (Falkirk East) (SNP): I am the MSP for Falkirk East.

Ross Dougal (Scottish Fishermen's Federation): I am vice-president of the Scottish Fishermen's Federation.

Graeme Dey (Angus South) (SNP): Good morning. I am the MSP for Angus South and the deputy convener of the committee.

The Convener: Hello, everybody. I am Rob Gibson, the MSP for Caithness, Sutherland and Ross and the convener of the committee.

I will kick off with a question about the way in which the MPAs are selected and designated. Are stakeholders content with that process and with the timing of the implementation of the MPA network? Would anyone like to kick off on that?

Jenny Hogan: First, Scottish Renewables continues to support the development of an ecologically coherent network of marine protected areas. As far as we are concerned, it is a positive process. We have had some concerns about the way in which it has been developed, but I would rather focus my comments on where we go from here.

On the timing, offshore renewable energy is at a critical stage of its development. Some serious issues face the industry in relation to electricity market reform: we are going into very competitive allocation rounds with a budget that is very limited and much lower than we expected. There is still a huge drive towards cost reduction for the sector. Wave and tidal technologies in particular still have some major technological challenges ahead.

Given all those various pressures, we feel that the timing of the process is unfortunate. We have some remaining concerns about the next steps. I would be happy to go into those now, although you might prefer to come back to that later.

The Convener: We might begin to find out about your concerns about the next steps as we ask more detailed questions, but you also said that you had concerns about how the process evolved. Can you give us a brief idea of what you mean?

Jenny Hogan: It is important to say that the renewables industry, along with most of the other stakeholders, has had a great deal of input and discussion throughout the process. In that respect, we have been pleased with the process.

In terms of the decisions on designation, the main area of concern that we had was around the Firth of Forth banks complex. We had highlighted in our consultation response that there were other similar sites that could have been chosen instead of that one. We were disappointed by that decision and by the fact that those other sites were designated in addition to the Firth of Forth banks complex. That is our main concern with the decision that has been made.

Mick Borwell: We will continue to support the MPA process. We were very pleased with the consultation process towards designation—it was very good. We were also pleased that almost the entirety of the network was presented to us in one go, rather than in tranches as has been done elsewhere, which makes the level of uncertainty greater.

On the designations themselves, the issue for us is that—possibly because much of the evidence base has come from oil and gas surveys of the sea bed—the MPAs are placed around current oil and gas activities. Something like 5 per cent of the United Kingdom's oil and gas production takes place within Scottish MPAs. We have challenges to come, but let us talk about those at the appropriate point in the meeting.

The Convener: Okay. People will undoubtedly dwell on the issue of the network's coherence and so on.

Lloyd Austin: We very much welcome the move towards designating a network of ecologically coherent protected areas. We

welcome the announcement. We felt that, as some of the previous speakers have said, the consultation, involvement and discussion process was comprehensive. We see the announcement as a first step. As has been suggested, there is more to do in deciding on the management of the MPAs, but there is also more to do in ensuring that the full range of features is represented in the network. We will probably come back to that point.

The key issue for us is that some of the criteria that have been used exclude mobile species and seabirds from the MPA selection process. That is the part of the process that gave us some concern. It is important to recognise that a network must include both internationally and nationally important sites. It was a positive move by the Cabinet Secretary for Rural Affairs, Food and the Environment to announce the draft special protection areas at the same time as the MPAs so that the network as a whole could be seen. Of course there are further steps to be taken, but that was another positive part of the process.

The Convener: I want to broaden out the discussion, because we have to set a context. As RSPB Scotland has said, particular species of seabird have shown sustained declines since 1986, not just in the four years since Marine Scotland was created. In that context, and bearing in mind the process and the timing, have those factors been taken on board?

10:15

Professor Furness: Different seabirds have followed different trajectories. Some of our seabird populations have declined dramatically—for example, the arctic skua has gone straight from the green list to the red list because of a decline of more than 50 per cent. On the other hand, gannets are still increasing in number. There are different pressures on different species.

Scotland has some internationally important populations of seabirds, and something like a third of all the seabirds in the European Union nest around Scotland. Several of our seabird species are found predominantly in Scottish waters, and they are very important to us as a feature of the natural environment. It is therefore absolutely essential that we consider SPA provision alongside MPAs. MPAs give protection only to black guillemots, among seabirds, whereas SPAs—which are yet to come through the system—are intended to provide protection for the foraging areas of some species, which is crucial and needs to be progressed.

Graeme Dey: I want to develop the point about black guillemots. I was struck by the fact that four proposed MPAs are focused specifically on black

guillemots. Are they under such threat that that is required?

Professor Furness: Black guillemots are doing moderately well compared with some other species, so they are not the most threatened of our seabirds. Nevertheless, they are at risk. They nest under boulders on beaches and they are at risk from predation by mink and other mammals; they are also quite subject to human disturbance. They are inshore seabirds, so they are rather different from the seabirds that live predominantly way out at sea. The reason that black guillemots are included in the MPA suite is that they are not included in SPA features because they do not migrate—they are our only seabird that does not migrate. All our other seabirds are, to some extent, protected by SPAs because they are migratory species, but black guillemots are not.

The Convener: Others may want to come in on that. In its written submission, SAMS states:

“There is clear evidence of degradation of marine habitats though its severity varies from place to place providing good opportunities for conservation.”

That phrase homes in on some of the particulars that we need to look at urgently in the MPA process. Has that been taken account of in the selection, designation and timing of the proposed MPAs, aside from what Lloyd Austin has pointed out about seabirds?

Calum Duncan: The protection of our marine environment is 40 or 50 years behind the protection of our terrestrial environment, and we concur with what SAMS says about the denuded baseline that we are working from. I do not think that we will ever be in a position in which developers of all kinds will have the certainty that enables everybody to be absolutely content right from the start. However, we support the process that arrived at the sites and think that the right decision was made to follow the statutory nature conservation bodies' advice. We support sustainable industry that is appropriately located, but the Firth of Forth banks complex is unique in the North Sea, so it was absolutely right to protect that.

In terms of wider ecosystem health, Scottish and UK waters are among the most pressurised in the world. “Scotland's Marine Atlas” clearly shows that there are declines across most of the sea bed and intertidal seas. The Scottish Government's least damaged/most natural tranche of work, which was part of the Scottish MPA process, showed that most of Scotland's seas are not the least damaged—they have suffered some damage—and the work by SAMS corroborated that conclusion. Experts think that it is unlikely that there will be any pristine habitats left on the continental shelf. Where there are good examples,

they are often relics that have been protected by topography or other infrastructure.

We support both the setting up of marine protected areas and the principle of sustainable use. They are not no-take zones at all, but there is an imperative to protect and improve the health of many of our sea-bed habitats, and we hope that the network will help to do that.

The Convener: I believe that Claudia Beamish wants to open out the discussion.

Claudia Beamish: Actually, I wanted quickly to follow on from Calum Duncan's point and ask whether the MPAs that have been designated will enhance our marine environment and allow it to recover. Can I put that question into the mix and ask our panellists to come back on it?

Following on from the convener's question whether all relevant species and features have been included—which is, I suppose, quite a challenging question with regard to the marine environment—I should say that, as its champion, I am concerned about the sea trout. Indeed, issues have already been raised about that. An equally important issue relates to the Firth of Forth banks. There has been a lot of talk about whether they should have been designated as an MPA; now that they have been, do the scientists think that sand eels should have been identified as an actual feature to ensure their protection?

The Convener: Would anyone like to talk about sand eels?

Lloyd Austin: On Claudia Beamish's last question, sand eels are, as many people will know, one of the key food sources for our seabirds, and changes in the sand eel population have been one of the drivers in the seabird decline that the convener referred to. Given the importance of the Firth of Forth and nearby seabird colonies, we very much support the idea of making sand eels a feature of the Firth of Forth banks, and that is one of the changes that we want to happen in due course. I know that the Government has put in place the next stage, which is to look at search areas for sand eels, and we want that to be progressed as quickly as possible given its key importance to the seabird ecology.

With regard to the issue of features and species, I reiterate that we think that migratory species, which obviously include sea trout, and seabirds should be included in the MPA network. Although I agree with everything Bob Furness said about including black guillemots in the MPAs, given that they do not qualify as an SPA species, I also point out that the fact that internationally important concentrations of seabirds are covered by SPAs is no reason not to include seabirds as a feature of MPAs. There are nationally important

aggregations that could be protected under the MPA side of things.

Finally, on Claudia Beamish's question about the enhancement and recovery potential of MPAs, I agree that that is key. There is no point in having MPAs if you do not set conservation objectives; you have to know what you want to do with them. If all we are doing is setting objectives for the designated features that simply maintain the status quo, I would simply say that, as Calum Duncan has said, the marine atlas clearly indicates that the status quo is not what we want to achieve. As a result, enhancement and recovery must be one of our management objectives, and a greater use of recovery objectives will be crucial.

The Convener: I see that Jim Hume wants to come in. Do you want to talk about the same area, Jim?

Jim Hume: I wanted to follow up on Mick Borwell's comments about surveying.

The Convener: I note that Mr Borwell wants to come back in, as does Phil Hammond. Please go ahead, Jim.

Jim Hume: Mick Borwell said that most of the surveying had taken place in areas where there had been oil and gas exploration. When we hear about cod and mackerel fisheries and so on, we are always told that the data is poor, and it would be interesting to hear others' views or put into the mix others' thoughts about the data that we have on the marine beds.

The Convener: Jenny Hogan wants to respond to that. I will bring her in later, but I will take Mick Borwell and Phil Hammond first.

Mick Borwell: It is worth pointing out that all sea bed developers are subject to the environmental impact assessment process, and the MPAs have just become part of that. It therefore does not matter whether we are talking about migratory species, seabirds or whatever, because they are all taken into account in the EIA. To a certain extent, the MPA increases the robustness of the EIA that is carried out. As for the question of data, the EIA process continually provides new data through the baseline work and subsequent monitoring.

Professor Hammond: As well as being important to seabirds, sand eels are also essential to many species of marine mammal. I know that we are not discussing seals, but they eat a lot of sand eels, as do marine mammal species that we are concerned about, such as minke whales—perhaps not Risso's dolphins, which we might mention later when we discuss the proposed MPAs—and other species in Scottish waters. For example, large-scale long-term surveys have

shown that harbour porpoises have moved from the northern to the southern North Sea over a decadal scale, and that is likely to be because of the decline of sand eels in the northern North Sea and their moving south to find something to eat. I add my voice to those highlighting the importance of sand eels in the whole process.

The Convener: I note that Jenny Hogan wanted to come in. You expressed some concern about the Forth banks from a renewables point of view, but how much does the MPA designation impact on the process of developing offshore wind projects in those areas?

Jenny Hogan: I actually wanted to respond to the comments made by Jim Hume and Mick Borwell. The survey work that the sector has done in developing offshore renewables has also created a huge amount of understanding. Moreover, linking back to Jim Hume's question, I wanted to highlight the risk of data bias in MPA site selection. In other words, you protect the areas that the developers have surveyed not because they are important sites but because you have data for them. That is a concern that we have had throughout the process, and it is linked to our concern about the Firth of Forth banks.

With regard to your own question, convener, developers are doing a huge amount of work to mitigate their own impact by, for example, moving further from shore and reducing capacity, turbines and so on. However, the socioeconomic impact assessment has highlighted that management measures, in particular, are likely to have a significant impact on projects and, indeed, on the prospect of projects going forward at all. That is where our concern lies, and the Firth of Forth banks is one of the main areas in that respect.

The Convener: I have to come back on that and ask what management measures are likely to have such an impact.

Jenny Hogan: Those are the measures that will be put in place to try to avoid any impacts. That is where our concerns lie, and we are keen to continue to speak to Marine Scotland and others to get more clarity about those measures. The crux of our concern is that we do not have such clarity at the moment.

Graeme Dey: As the member for Angus South, I have a very parochial interest in this matter, given the proposals for wind farms off the Angus coast. Are you saying that you have some concerns or that this process might genuinely lead to the loss of proposed offshore wind farms?

Jenny Hogan: That is what I am saying, but I also repeat that it was the socioeconomic impact assessment itself that highlighted such substantial impacts. In other words, you should not just take my word for it.

I can tell you a bit more about the economic benefits that the sector is bringing. We are talking about millions of pounds of investment; indeed, the Scottish wind farm industry has already invested more than £190 million without any scalable projects in the water so far. These are huge investments, and they mean thousands of jobs. It will all come down to what those management measures will be in practice, and as yet we have not had any clarity about that. That is the next step that we need to focus on.

Graeme Dey: I am sorry—I do not want to be rude, but the industry would say that, wouldn't it? Can we drill down into this issue? Is there a genuine threat to any or all of the four proposals for that sector of the sea?

Jenny Hogan: The short answer is yes.

10:30

Dave Thompson: I want to go back to Professor Hammond's point about a potential decline in sand eels in the north. I was born and brought up in Lossiemouth, so I am familiar with sand eels from seeing them in the River Lossie and around the shore—they are beautiful wee fish. Also, I am the sand eel champ, so I feel obliged to speak about them.

Why has there been a decline in sand eel in the north, given that we do not fish for them in the UK to any extent? Why have they moved from the north to the south? Most folk say that, as the waters warm up, fish will tend to move north to the cooler water, but maybe sand eels just like a hot bath—I do not know.

Professor Hammond: The seabird people are probably better equipped to answer that, but I believe that the reason is probably that large-scale oceanographic changes over long timescales have changed the environment. There is good evidence for that and to show that the fish assemblages have changed. I suspect that that is part of the reason for the decline in sand eels in the northern North Sea.

We should remember that the water comes across the North Atlantic, goes round the top of the UK and then into the North Sea, so the world is kind of reversed in the North Sea. There is a general shifting of species to the north, but it might actually work the other way in the North Sea, simply because of the way that the water flows. The reason is not overfishing or necessarily habitat destruction—the best evidence is that it is to do with large-scale oceanographic changes over a long timescale.

The Convener: I will call Calum Duncan, then Bob Furness and Angus MacDonald. After that, I

will try to draw the discussion on this section to a close.

Calum Duncan: I support Lloyd Austin's point that site objectives should be ambitious. I remind everyone that the legislation requires objectives for the sites, but we are seeing objectives only for individual features. We would like more realistic thinking about the sites.

To pick up on Claudia Beamish's point about features, I believe that the network has to be ecologically coherent. That is quite a complex topic, but the most graspable element is that it has to be representative of the full range of biodiversity. I will take the opportunity to flag up some gaps. The advice from SNH was that spiny lobster, burrowing sea anemone aggregations and heart cockle aggregations are worthy of MPA protection. MPAs were not found for them, but that does not mean that, if the evidence arises, we should not have MPAs for them.

I support Claudia Beamish's point about sea trout, which are in decline and which spend a lot more time around the mouths of the rivers that they return to. They merit protection.

The point about evidence is often overstressed. There is an awful lot of evidence inshore, particularly in our sea lochs, to support the proposals. We support the scientific advice on that. With offshore sites, there is not always data bias. For example, one of the protected features for the Firth of Forth banks is that it is a shelf bank and mound. We know from topographical mapping that there are only so many of those in the North Sea. I therefore back up what the advisers said about the Forth banks being unique—there are no options in that regard.

Professor Furness: I want to return to the question of why sand eels have declined, which is an undoubtedly complicated issue. There is clear evidence that sand eels spawn less in warmer sea conditions, so warming conditions are probably part of the story.

It is now understood that there are several different stocks of sand eels in the North Sea, rather than there being simply one stock. The separate stock around Shetland has been long recognised but there are considered to be around seven different stocks. There are other species of sand eels, too. The ones that you find in the river mouth and on the beaches are a different species from the ones that are the subject of the fishery. *Ammodytes marinus* is the major sand eel found offshore. It is the main food of seabirds and the focus of the Danish sand eel fishery.

There is evidence from Norwegian fishing on sand eels in the northern North Sea that fishing can deplete their stocks and that they can take many years to recover on particular sandbanks.

There has been serial depletion of some sandbanks in that area, which the Norwegians now recognise. When there was evidence of a fishery impact off the east of Scotland, the area was closed to sand eel fishing. The closure resulted in, to some extent, a recovery of sand eels, a feature of which was the related recovery of the breeding success of Kittiwakes.

I reiterate that the situation is complicated. There is evidence for both fisheries and climate impacts; there are probably predator impacts as well. For example, herring are a major larval sand eel predator and the latter's decline in the northern North Sea might partly relate to the predation by fish, and such predation is a more important influence in the northern North Sea than in the south.

There are very strong grounds for arguing that sand eels are a key feature in the North Sea. They are of huge importance to sea birds, marine mammals and predatory fish. Therefore, we should be very concerned about protecting them.

The Convener: Dave Thompson has a quick point on the issue.

Dave Thompson: The point about sand eel fishing by the Norwegians is interesting. That is a matter for the EU because it negotiates the overall fishing limits. I am not sure whether the Norwegians are fishing in their own or Scottish waters. It sounds like there is an EU-wide need to ensure that there are plenty sand eels; perhaps we should not be fishing for them at all.

Ross Dougal: It is recognised that there are distinct sand eel populations. The fishing quota is split into distinct areas in the North Sea—people cannot catch their entire quota in one area. The UK/Scottish fleet is not involved in sand eel fishing and has not been involved in that for some time. I know of one boat—ex-Barra—and the last time that it went out would be five or so years ago. The quotas were very small.

Because of the biology of the sand eel, the quotas are decided only in-year. It is not a case of saying that there is a recruitment that we see coming into fishing in two or three years' time, such as would be the case for haddock; rather, a season-to-season quota is set out for sand eels. What happens is an exploratory fishing trial, and the current year's quotas are set on the back of the results. Sand eels are recognised as a pressure stock.

Angus MacDonald: We could devote half of the meeting to sand eels, by the sound of it. It is a fascinating issue. I have been interested in the issue since the 1990s when the Danes were coming over to the Wee Bankie and hoovering up the sand eels for the BioMar factory in my

constituency. My observation is that we should be thankful that the Danes are no longer doing that.

The Convener: Indeed. The difficulties of spawning sand eels remind me of pandas, but we had better keep away from that subject. Alex Fergusson has the next question.

Alex Fergusson: As the Scottish Conservative representative on the committee, I suggest that we move on from pandas.

Jenny Hogan mentioned the socioeconomic impact of the proposals, and I wondered whether it might be useful to discuss that further. We know that Marine Scotland has done a lot of work on trying to identify and mitigate—if I can phrase it this way—the worst impact of the proposals. Are the witnesses content that all the socioeconomic impacts have been identified and that the proposals have mitigated those impacts?

Calum Duncan: With regard to the phrase “mitigate the worst impact”, I know that Alex Fergusson is using shorthand for what the MPAs might mean, but I want to take this opportunity to say that we should be looking at the MPAs in a much more positive way. They are not just about protectionism and ring fencing features for their own sake. Particularly with regard to a lot of the invertebrate species and the habitats that they create, these mosaics of habitats are the building blocks for the marine ecosystem, and everything that we enjoy from the sea derives from all those pieces of the puzzle working properly and efficiently.

The paperwork for the consultation made it clear that if we factored in all the societal uses and values, the socioeconomic benefits outweighed the quantifiable costs to the range of industries. However, that was an underestimate. In a piece of work that was done by a subset of the national ecosystem assessment, it was estimated that there would be

“£67-117 million in annual recreational benefits”

from MPAs and that their protection

“would generate a total one-off non-use value of £125-255 million.”

There is also a wider issue. A lot of sustainability benefits, including sustainable tourism, sustainable fishing and sustainable energy use, can be derived from managing the sites sustainably. There are win-wins if we get this right. This is not just about costs; there are an awful lot of benefits there.

Ross Dougal: The issue that you have raised was one of our earlier concerns. The Scottish Fishermen's Federation was involved in a lot of the early work on MPAs, and in general, our concerns about the legality of what was being

done and the quality of evidence have been addressed. SAMS has done a good job there.

The MPAs give protection to features on the basis of evidence; they are not an anti-fishing measure. The information about the socioeconomic impacts came very late; indeed, as I should have said in response to the earlier question about the process, I think that the process was rushed. There were three big consultations all at once and Marine Scotland simply did not have the staff required to handle that quantity of work. In fact, we are still working through it. The federation has been involved in a lot of the management measures, displacement surveys and coastal meetings, and it has helped to refine the location of the features on the basis of evidence. Fishing evidence has been provided in addition to what oil and gas has done on the sea bed.

The management measures, which are really important, will take up the time over the next year, and we are heavily involved in that work. All we suggest is that there be equity with other sea bed users. I know that there is a particular problem with renewables, especially down at the Forth banks. Although one of the proposed renewable sites contains one of the main concentrations of ocean quahog, it is outside the MPA—so, as far as setting the MPAs is concerned, go figure.

The Convener: Indeed. That is interesting.

Lloyd Austin: On the socioeconomic implications, I want to reiterate and remind everyone of the process point that was debated when the Marine (Scotland) Act 2010 was passed. You might remember the correspondence between the cabinet secretary and the convener of this committee's predecessor on how sites would be selected and designated on a purely scientific basis, and it was agreed that it would be the management measures that would take the implications of socioeconomic impacts into account.

The difference between MPAs, SPAs and special areas of conservation is that the cabinet secretary and the Government take socioeconomic implications into account in a different way. That is the difference between international and European protection and the national, domestic protection that is provided by the Marine (Scotland) Act 2010. Socioeconomic implications can be taken into account in both cases and, as Ross Dougal has said, we will go into that discussion in the coming phase. However, it is important that we distinguish between taking socioeconomic implications into account in management measures and taking them into account in the selection and designation of sites, which at the time that the act was passed we all agreed that we should not do.

10:45

Jenny Hogan: The management measures are absolutely the priority for us now. That is where the risks might lie, but we hope that there are also opportunities for us all to co-exist.

I should point out that the costs identified in the socioeconomic impact assessment underestimated the impacts on the renewables sector. Although the costs were identified as potentially very significant—indeed, so much so that they could make some projects unviable—there was still an underestimation of, for example, the costs of delays.

We have similar concerns about draft SPAs, which have been mentioned a couple of times, but I do not want to go too far off-topic. Our other concern is about how the MPA network will be reviewed. There are similar issues there about the impact on socioeconomic opportunities.

Mick Borwell: I want to make a comment about economics, but I will start with the environmental impact assessment.

An issue that we have identified is that the screening process that has to be gone through when people want to undertake an activity inside the MPA requires them to demonstrate that they will not have a significant impact. We do not know what that means and nobody can explain it to us; we are at the forefront of science here, and we do not know what it is. The result is to force us into what we call a habs regs—habitats regulations—assessment or an appropriate assessment, which is much more rigorous, with the implication being that we are having some impact.

The end of the process in European marine sites is invocation of the imperative reasons of overriding public interest—IROPI—process, in which somebody has to balance the socioeconomics against the impact on the environment. We have no rules on that, and the uncertainty that it can lead to will affect investor confidence. There is a circle there.

The Convener: Alex, do you want to come back in?

Alex Fergusson: I will make one point, if I may. I think that I understand what everybody has been saying, which is basically that the devil—if it is a devil—is going to be in the detail of the proposed management agreements. I absolutely understand the need for sustainability. Perhaps I should rephrase my first question and, instead of saying “the worst impact”, use the phrase “negative impact”, given that negative impacts were highlighted during the consultation.

I will, if I may, pose another question. I understand the importance of sustainability in all of this, but can we achieve sustainability across the

network if the network itself is not ecologically coherent, as some people have suggested it will not be without the addition of further MPAs?

The Convener: Does anyone want to answer that question on sustainability?

Calum Duncan: I suppose the short answer to that question is no.

The Convener: Well, that is fine, then. [*Laughter.*]

Calum Duncan: We need the network of sites in the context of a marine planning system that also, as SAMS makes clear in its written submission, considers the wider 80 per cent of the sea, but sustainability is all about keeping the sea working and improving its biodiversity and health. That is a legal requirement—and we would say that it is also an ecological requirement, as per the examples that I gave earlier.

The Convener: Okay. I think that we have reached the end of that discussion. We will look at the management principles next, and Graeme Dey will lead on that.

Graeme Dey: I have a series of questions, but I want to kick off with your views on whether any and all public authorities and regulators whose decision making might impact upon MPAs are equipped with the necessary skills to determine what significant risk to the conservation objectives of MPAs might look like. Perhaps I can broaden that out. How will land use changes, which might increase pollution through run-off, be taken into account, and will cumulative impacts be monitored and assessed?

The Convener: Who is up for that?

Mick Borwell: That is a loaded question. I will start at the end: we have to get to grips very quickly with cumulative effects assessment, which is another one of those things that nobody knows how to do. My plea is that we work with the statutory nature conservation bodies and the regulators to come up with a methodology for cumulative effects assessment.

Are the regulators and advisers equipped with the necessary skills? They, too, are at the forefront of their knowledge. One thing that we have noticed—and this applies south of the border as well—is that because of the lack of knowledge and experience, you have to face an iteration of questions when you try to develop something; you present your evidence, they find that your evidence might not be good enough and then you have to go through another cycle. That is very difficult for a developer to deal with, and standards of evidence are an important issue that we need to tackle.

The Convener: How do you feel about the agencies' guidance on and skills for determining significant risks? Are you sanguine about that?

Lloyd Austin: To some extent, I agree with Mick Borwell. Many of the regulators and agencies, and indeed all the participants in this round-table discussion, sometimes find themselves at the edge of their knowledge.

We are moving towards a new system. Clearly, as we have never had a planning system for the marine environment, we do not know how to run it yet. It is important that we put the MPAs and the SPAs in the context of the wider marine planning system because, as Calum Duncan has said, 80 per cent of the seas will not be in the protected areas, and the management of those seas will impact on the protected areas and vice versa. That is a reason for hoping that progress is made as quickly as possible on the marine plan that was consulted on at the same time as the MPAs and that the agencies and regulators get up to speed with implementing it.

Graeme Dey has identified many of the key issues that we would ask questions about. The effects of on-land activities on coastal and inshore marine areas is an important issue. That is why the marine plan, the terrestrial plans and the river basin management plans, which span the coastal strip, need to work in harmony with one another, and why the different agencies responsible for those different plans need to work together and co-ordinate their activities.

Ross Dougal: As a general point, I think that the level of science that is required is just not there—and, more important, nor is the funding, and there are budget restraints everywhere. We see the same problem in fish biology; the Scottish Environment Protection Agency is supposed to take care of water and run-offs, but aquaculture sometimes has problems getting projects done because SEPA says that a particular matter for which it should be responsible is for the local council to deal with.

As for the point that there is a lot of water that the MPAs do not cover, we think that displacement is an issue, and one of the reasons why we have been working so hard to refine fishing activity within the MPAs is to ensure that only designated features are protected. After all, the worst-case scenario is that we displace people into other areas, which will have a bigger impact.

When the MPAs were announced, the Scottish fishing industry came up with voluntary management measures for 11 sites within three MPAs, pending the full discussions that were going to take place the following year. It recognised that, once that announcement was made, the features in question would need

immediate protection, otherwise there could have been problems for the Scottish Government. There could, for example, have been infraction proceedings. The industry is working to try to do things, but there has to be a balance to allow fishing to exist.

Nigel Don: I hope to say what I am trying to say without anybody taking offence. I do not mean to be in any sense rude or disparaging about what is being said.

The Convener: We will be the judge of that.

Nigel Don: Nevertheless, I get the impression that, if we were sitting here again in 10 years' time, we would recognise that this is very much the beginning of a process and—I do not want to sound unkind—either we do not really know what we are trying to do or, if we know what we are trying to do, we are not sure how to do it. We do not have as much information as we would like—actually, we never have as much information as we would like—we are not sure what the tools are and we are not sure what the implications are. However—this is the important bit—we recognise that we have a problem to solve and we have to get on with it. Perhaps all the industries and activities that are represented here just need to understand that, somehow or other, we are going to follow a learning curve and we have to make this work.

Lloyd Austin: I agree that there is a steep learning curve ahead and that many of the agencies and the Government itself have to develop, learn and get the process working. The one point that I slightly disagree with is your assertion that we do not know what we are trying to do. We know the outcome that we are trying to reach: a fully functioning marine ecosystem that supports all the industries and things that benefit from that ecosystem as well as the component species and habitats of that ecosystem.

We know that that is the outcome that we want, and we know that an ecologically coherent network of protected areas within that wider ecosystem, which is managed through an overall planning system, is a means to achieving that. The learning curve relates to how we implement the components of the outcome that I have just described. We know the outcome and we know what many of the components are; the challenge is around how we operate those components. That is where there is a steep learning curve and—as somebody said—a need for more science. I am trying to distinguish between knowing what outcome we are trying to achieve and knowing how to achieve it.

Calum Duncan: As Lloyd Austin says, we know what we want to achieve. We want to protect all those component parts, and discussions need to

be had on a case-by-case basis about how ambitious that protection is. It is clear that we need to be more ambitious than some of the management options that were put out as part of the consultation. It is about sustainable use on a case-by-case basis.

In response to Graeme Dey's question about the link between terrestrial activity and the marine environment, I will highlight an interesting case study. It is quite specific but it illustrates the point. About 10 years or so ago, there was a proposal to put a sewage outfall in north Lamlash Bay, where there is a big maerl bed. The environmental consultants went and surveyed the area. They were not told to look for maerl and they did not record maerl. According to them, there was no maerl. It was up to local divers—citizen scientists who were trained by the seasearch programme—to convince the authorities that there was maerl there and, lo and behold, they were correct.

At least people now know that there is such a thing as maerl, as well as flame shells, horse mussels, cold-water corals, deep-sea sponge fields and all these fantastic habitats. Collectively, we agree that it is very important for Scotland to protect all those component parts.

Graeme Dey: To wrap up, I want to be satisfied that everyone around the table buys into the notion that what we are trying to achieve is an environmentally responsible coexistence of all the component parts and that we do not want a push simply to get oil and gas, renewables and fishing removed altogether. We are looking for a balance—is that right? Do we all buy into that?

The Convener: I see people nodding.

Ross Dougal: I can address Graeme Dey's point in one sentence: stakeholders should not see MPA management plans as a means of resolving non-nature conservation issues.

11:00

Claudia Beamish: I understand that there are five overarching management principles to the MPA management policy, which is set out in detail in the draft handbook. Those who know them better than I do will have to bear with me because, before I ask my questions, I want to outline them briefly to set the scene for this part of the discussion.

The five principles are:

“Management of MPAs should be integrated with wider marine management”,

which we have already touched on;

“Additional powers such as Marine Conservation Orders will be available where necessary ... The best available scientific information will be used to select and manage ... MPAs”;

and

“As our understanding improves, and ... the environment changes, there may be a need to select additional new ... MPAs, alter boundaries ... or remove designations”—

in other words, there must be futureproofing. I want to emphasise that principle, of course—I am the shadow minister for environment and climate change. The final principle is:

“MPAs will be subject to a range of protection levels, depending on the conservation objectives ... There will be an assumption of multiple-use of a site. However activities which are not compatible with the conservation objectives of a Nature Conservation MPA will be restricted.”

We have heard from Mike, Lloyd and others—

The Convener: His name is Mick. We have not heard from Mike yet, although we will.

Claudia Beamish: I am sorry—it is my mistake. I am sitting at the wrong angle.

Mick Borwell, Lloyd Austin and others have talked about the broader issues with regard to Scotland's seas. Given that there is specific protection for only 20 per cent of those seas, are marine planning and the wider marine management regime sufficient to ensure adequate protection of the remaining 80 per cent? Although representatives from SAMS were unable to make it to today's meeting, that organisation has highlighted and expressed concern about the issue.

Do marine conservation orders provide the appropriate structure for achieving conservation objectives and resolving conflicts on a site of multiple use? In asking that question, I take the point that fisheries will not be included in any MCOs that might be introduced. Finally, are the circumstances in which Scottish ministers do not have exclusive competence a cause for concern?

The Convener: Who wants to kick off on that subject?

Mick Borwell: The question comes back to an issue that we have touched on. As I have pointed out, the remaining 80 per cent of Scotland's seas are still subject to environmental impact assessment by developers, and there is a legal requirement to undertake, as part of those EIAs, a cumulative impact assessment that takes into account other industries that might be working on the same patch. However, we are not very good at that sort of thing at the moment, and I do not know how you would reinforce that approach. There are processes by which we can understand what wind or other offshore renewables projects are going to be in a certain area, and those projects can understand where we are and what we are doing, but we are just at the start of those processes. That said, from the developer's point of view, the remaining 80 per cent is well covered.

Lloyd Austin: Generally speaking, we support the five principles, which are generic and aim for the kind of integrated management regime that we support.

However, I reiterate my previous comment about the need to get the marine plan up and running. Although that plan was consulted on at the same time as the MPAs, the MPAs have moved on a stage while the plan remains where it was. We are waiting for Marine Scotland to make progress on it and publish it. As far as the management of the whole sea is concerned, it is a key aspect of the Marine (Scotland) Act 2010 that we want to be implemented and rolled out.

MCOs are among the range of tools that Scottish ministers and other regulators have at their disposal and that should be used appropriately, where needed, on a case-by-case basis. Fisheries are not included in such orders because Scottish ministers can use other legislation should the need arise. Ross Dougal might disagree about whether there is a need to use that legislation, but Scottish ministers are able to make up their own minds. The point is that they have other tools at their disposal to manage fisheries—I hope that that makes sense. That is a legislative answer to your question. We might disagree about how those tools are used, but they exist.

Overall, the key issue for management is the need to ensure that the management objectives aim for the right outcome as a whole. Too few objectives are about recovery and enhancement, which Claudia Beamish mentioned. We are slightly concerned that, despite the intention to apply management measures instead of simply allowing the status quo to carry on, that will not happen. There is too much emphasis on designating things and saying, “Job done”, instead of saying, “Now that we've got that in place, what do we need to do?” No one is suggesting that we always need to do lots of things, and whatever we do must be evidence based, but it is important not to take what I might undiplomatically call a complacent approach in which we designate these areas and then simply let them be. We need to look after them and achieve our objectives.

Ross Dougal: MPAs have been announced simply because there was a 12-month deadline after the consultation started for announcing them. That is why they have been announced and why the other stuff has been put on the back shelf, which brings me back to my point about the staff that are available to work on the rest of the measures. To be slightly political, I think that, as with a lot of things just now, we are waiting for stuff to happen and it will depend on whether the referendum, in one shape or another, needs a good news day.

The Convener: Okay. We might take up that point later.

Calum Duncan: In reply to Claudia Beamish, I should say that, although we support the principles in the draft handbook, the whole discussion has to focus on where activities are or are not compatible with features and what we want to achieve for those features. As Lloyd Austin has said, there is already legislation to provide protection from fisheries where that is merited.

We need to think a bit more holistically about MPAs. Because the current process involves organising and categorising the marine environment to arrive at the places in the sea that it is important to protect, it involves a certain disaggregation. However, at this end of the process, we need to integrate things to ensure that we are not simply thinking about managing little patches of leftovers in our MPAs. To put it into perspective, I point out that recovery objectives apply not to the four MPAs as a whole but to little patches of maerl and flame shell beds in three of them. I would like to think that we could think a bit more holistically about the issue. We need to look to the legislation and recognise that the objectives should apply to the overall site, not just to certain features, and should relate to what we want the site to do.

Although I agree with Ross Dougal that MPAs are not fisheries management measures, in thinking about how we manage sites we should recognise that protecting and, where appropriate, recovering these building blocks of the ecosystem can deliver secondary benefits.

That thinking should also be taken into marine planning so that we undertake proper ecosystem-based marine planning to deliver the sustainable development that the plan should deliver in the sense of living within environmental limits. That wider process and fisheries management must, as the committee—or an earlier version of it—concluded a few years ago, integrate with marine planning inside MPAs as well as outside them.

Claudia Beamish: In addition to those responses, do the witnesses have any comments on whether it is a realistic aim to implement all the measures for the present MPAs by the end of 2016?

Ross Dougal: That goes back to what has already been said. You referred to the nature conservation MPA management handbook. It exists but it is broadbrush in some cases. Calum Duncan talked about what is needed to get the evidence that is required to harden up on some of those things. If we are talking about the recovery of a maerl bed or a flame shell bed, where do we stop? What size is big enough? You say that the MPAs protect only a small area. Perhaps that is

fine—who knows? We cannot just say that we should have more, as some sort of limit must be put on that. That is where the problem will be.

We are working seriously hard on the management measures and are trying to make things work, but it will be a long slog. As Mick Borwell and Scottish Renewables know, the Scottish Fishermen's Federation is involved in a lot of the discussions on the licensing process about where things will be sited, how cables will be modified and the track that they will take to avoid features and areas that may be beneficial to fishermen. Some of the BT communication cables that go in and out of Jura go right through MPAs.

Joined-up thinking is needed, and there will have to be a balance. Everybody around this table wants to work towards a balanced position.

Mick Borwell: We will have great difficulty in complying with one of the management measures at a site level. The management measures say that

“deposited material should meet local habitat type”.

That means not putting on a mud or sand sea bed something such as rocks that were not there in the first place. However, we use that technique to stabilise pipelines, in particular. It is a safety feature for the fishing fleet as well as for the contents of the pipeline. Therefore, we will have great difficulty with that management measure. However, as Ross Dougal says, we will work with the regulators and advisers on how to determine the impact of that. The question was whether we could do it by 2016, but I do not know.

Jenny Hogan: We support the principles of the management measures. We also welcome a statement in the management options that says that renewable energy impact assessments will be considered on a case-by-case basis through EIAs. That is positive.

We have some concerns that the draft management handbook states that there is an ability to amend a consent in the light of an MPA designation and monitoring. That is an important issue for licensed activities, as it introduces uncertainty to the consent. The handbook also states:

“There is no legal duty to ... review ... consents”.

We still have some concern about that. It also relates to the reviews of the MPA network.

11:15

Lloyd Austin: Amending and reviewing consents is a statutory ability for the Scottish ministers anywhere. It is not new for the marine environment; it exists on land and is part of the habitats regulations for all Natura sites

everywhere, for instance. That does not mean that ministers use it frequently or are keen to use it; however, it is in the statutory framework. I do not think that it is a particularly new or different thing.

Claudia Beamish asked about the 2016 target. I think that, despite the discussions that everybody is saying will happen, that target will be challenging for all the reasons that we have discussed, including the uncertainty, the science and the need for regulators to get up to speed and get the processes working. However, the OSPAR target that the Scottish Government is signed up to is to have a well-managed network of MPAs by the end of 2016. Beyond that, there is the EU target, under the marine strategy framework directive, of achieving good environmental status for the marine environment by 2020, and a key component of good environmental status is an ecological coherent network of well-managed MPAs. We have those overarching international agreements to deliver the network. Therefore, although the target is challenging, it is our responsibility to step up to the plate and try to make it work.

The Convener: A view has been expressed about the proposed reviews, and Jim Hume wants to pursue that.

Jim Hume: Yes, my questions follow on from that. We are talking about achieving conservation objectives and reviewing that achievement every six years. Do you agree that six-yearly reporting to the Parliament is appropriate? Is it realistic to expect significant change within six years? Should the period be shorter? It would be interesting to hear the panel's views on that issue.

Mick Borwell: Given that we are on a steep learning curve, six years is probably right. It sounds like a short timescale, but it is probably about right. However, there is no mention of reviewing the impact assessment within the same timeframe, and I think that that should be coupled with the six-yearly review.

The Convener: Nobody else seems to want to comment further on the timescale or to agree with what Mick Borwell has said.

Jim Hume: It would be interesting to get the environmental bodies' views.

The Convener: It would, indeed, but they have not offered any.

Professor Hammond: For species that have slow life histories—long-lived species—six years is plenty. Unless there is a really serious impact on them, which you would probably know about for other reasons, you do not need to monitor more frequently than every six years—even every 10 years would be sufficient for species with very long life cycles. I recognise that such species are at the

top of the food chain and that the species below them are, in many ways, much more important because they support them. However, for long-lived species a review every six years is fine.

The Convener: Does Mike Tetley want to say something about that, given that he is involved with some of the longer-lived species?

Dr Tetley: I reiterate Phil Hammond's comment that six years is adequate. It is accepted in other processes, such as the SAC process and other processes around Natura 2000. There can be annual changes in the distribution of species such as minke whale and Risso's dolphin associated with different key foraging sites, which may be an argument for a shorter review period, but I think that six years is an adequate period for the review.

The Convener: Does Calum Duncan have anything to add about the six-year review period?

Calum Duncan: From our perspective, six years seems not unrealistic.

Alex Fergusson: I want to draw out a point that Lloyd Austin made. If I understood correctly, under European legislation we are required to have an ecologically coherent MPA network by 2020. Given Scottish Environment LINK's insistence that the suggested network is probably not fully coherent without the addition of further MPAs, how can we achieve that? The year 2020 is six years from now. How can we achieve the coherence to meet the European standard within that time period if we stick to a six-year review period?

Lloyd Austin: We have not suggested that the additional sites or the additional features that we think are necessary to make the network coherent need to wait for six years. The announcement of the MPAs and the draft SPAs was a positive move and a good step forward, but it is not complete, for the reasons that we explained earlier, and it needs to be developed further. However, that further development does not have to wait until the six-year review. The review is of the network as a whole—whatever the network is—but ministers can add to it at any time. It is quite clear that the Commission and the directive require ministers to add further SPAs. It was part of the announcement and they will not wait six years to comply with that.

Alex Fergusson: Thank you.

Graeme Dey: We have heard about how we are embarking on a steep learning curve, so is our ability to assess improvement—to measure it—sufficiently strong right now? If it is not, will it be in six years?

To take up Ross Dougal's point, do we not need to determine now how much improvement is enough? Where do we need to be in six years to be able to say, "Yes, now we need to review it"?

The Convener: Okay. Let us be more precise, then.

Lloyd Austin: It is about setting conservation objectives—what we want to achieve with the sites. For some people, that might be the status quo. For others, it might be a 10 per cent increase in the size of that piece of habitat or a 20 per cent increase in the population of a species or whatever. The important thing is that we have that debate about what our objectives are so that we know whether we have achieved them.

Graeme Dey: To be clear, do we have the ability to measure accurately right across the range of the MPAs?

Lloyd Austin: Not for everything everywhere, but we have to do what we can with the knowledge that we have and put in place the mechanisms, the research and the surveys to fill the gaps in our knowledge.

The Convener: Richard Lochhead said in March:

“In the majority of MPA designations, there will simply be a designation, so that we are aware of the marine feature. Other MPAs will have management plans attached to them, where that is required ... but I do not expect there to be a huge number of such MPAs.”—[*Official Report*, 20 March 2014; c 29206.]

Why do you think he said that?

Lloyd Austin: I referred to that issue earlier—we were concerned that there were going to be management measures for a minority of MPAs. We do not know how this is going to pan out, but we need to be clear about what the conservation objectives are for all the MPAs. Where no intervention is needed to achieve those objectives, there is no need for any management, but where intervention is needed, there should be management plans.

There needs to be a process to do both those things: to determine the objectives and, if those objectives need management, to implement the management. We are not yet in a position to say what proportion of MPAs would be in one camp and what proportion would be in the other. That is why we were slightly concerned that the cabinet secretary stated that the majority of MPAs would have no action.

The Convener: Do you not think that there is another reason? It is about staff and resource. Is that not central to the whole of the development that we are talking about? Indeed, Ross Dougal hinted at it—it is the question of whether we can have enough people working on it and how we fund that.

Lloyd Austin: Whether there is adequate resource to deliver the objectives that everybody

has signed up to and which the act requires is a question that is worth debating.

The Convener: Indeed. Is it worth campaigning about?

Ross Dougal: To go back to something that was said earlier, all that everybody talks about is the best available science. That is not necessarily good science. The best available science can be very little. It can be somebody going down with an aqualung and saying, “Oh, I saw a flame shell.” I am not being facetious, but there is a great range of best available science, and it is not always good enough.

You are right, convener. I do not think that there is the staffing available to do this job for all the MPAs. We made that point when all this kicked off. You can set the MPAs up, but how are you going to monitor progress? We will play our part, but it still leaves a big gap.

Mick Borwell: That issue—lack of cash in Government and among its science advisers—brings me back to my point about standards of evidence. The SNCBs, when they are acting as statutory consultees, have to say to industry, “When you’re doing monitoring, these are the questions that we need answered.” If one of those questions is around the conservation objectives and the status of a site, the SNCBs need to say so, and then we will undertake appropriate monitoring.

My second point—I know that I am going back and I should not—is on the coherence of the ecological network and meeting the standards for the marine strategy framework directive in 2020. It is based on the regional sea, which is the North Sea. It covers not just the Scottish MPAs, but the entirety of the UK’s MPA network, which includes marine conservation zones in England and the SACs.

Calum Duncan: Obviously we could do with more resources, as monitoring is needed—

The Convener: We will keep asking, “Where’s it going to come from?”

Calum Duncan: —but, to pick up on Ross Dougal’s point, the best available evidence includes very good-quality citizen science data from seasearch, which is quality assured by non-governmental organisations. That data has been tested with commissioned reports from SNH and has stood up very well.

I would also pick up on a point that Mick Borwell made right at the start of the meeting about data being available from oil and gas and other sectors. That is because there are requirements under EIA and habitats regulations appraisals for those industries to do surveys, particularly if they impact European marine sites offshore. Appropriate

assessment is needed because the burden of proof is on industry to prove that its activity would not damage a feature.

There has been a big on-going discussion about that in relation to fishing, with exchanges of correspondence with the Marine Management Organisation in England. The conclusion of that was that, for SACs, article 6(3) of the habitats directive should apply and therefore a risk-based review of fishing should be triggered. There is a question there about where the burden of evidence gathering should be if an industry—whatever the industry is—wishes to undertake some development. We welcome any socioeconomic sector that can provide data to prove that what it is doing will not have an impact.

The Convener: So oil and gas, renewables—all these sort of people.

Calum Duncan: Yes, and fisheries as well.

Graeme Dey: Just to be clear, you are talking about situations where there would not be an impact. If the oil and gas sector were to broaden out its survey work to assess improvement in MPAs, would the conservationists among us accept that evidence as a robust baseline for making judgments?

Professor Furness: From the perspective of a seabird ecologist, our knowledge of the distribution of seabirds at sea in UK waters is largely from work that was generated by oil and gas. It is the European seabirds at sea database, which is fundamental for, among other things, defining which areas should be considered as SPAs for seabirds foraging at sea. A lot of scientific effort has gone into the development of a programme of survey and the science has been published and is robust, so we would very much support the view that the oil and gas industry has helped to develop that.

Graeme Dey: We are talking about limited governmental resource. That could be supplemented by Mick Borwell's members and the work that they do, and you would accept that work.

Professor Furness: Yes. Offshore renewables developments use the same European seabirds at sea methods for their sites and they are providing the data to a central database.

11:30

Dr Tetley: I support the comments. Many of the methodologies that have been developed for seabirds are also important for marine mammals and cetacean species. That has fed into a large programme of work under the joint cetacean protocol at UK and European levels and, I imagine, into the work of Professor Phil Hammond

at SMRU on other large-scale surveys of marine mammals.

Lloyd Austin: I agree entirely with Bob Furness and Mike Tetley and with what Mick Borwell said about the oil industry. A lot of developers provide a lot of information that is good science through EIAs and so forth. The one caveat that I add is that, in some circumstances, some EIA information is held to be commercially confidential. It is important that the Government finds a way of getting data in such documents into the wider public domain.

Onshore, the Scottish wind farm bird steering group is doing good work with the industry to bring such information together so that it can be made widely available and published. Such a mechanism in the marine environment would be worth exploring to make the information more available, in the way that oil industry information has become available in the past, as Bob Furness said.

What different industries are doing in different ways is all very good, but the one caveat is that it is important to make the data widely available to Governments and others.

The Convener: You would have thought that making such information available would be part of the EIA process.

Lloyd Austin: You would have thought so.

Mick Borwell: That is not part of the process. The productive seas evidence group is looking at how the current voluntary arrangement can be made a legal requirement of licences. Oil & Gas UK has a 30-year database of benthic data for the North Sea and we publish the raw data.

Jenny Hogan: I reiterate what has been said. There are other projects, such as the offshore renewables joint industry programme, and lots of discussions are taking place with Marine Scotland about on-going monitoring of offshore renewables sites. That is in addition to the EIA requirements. Some initiatives are being discussed and taken forward.

The Convener: That is useful to know. Angus MacDonald will kick off another question.

Angus MacDonald: I will take a slightly different tack but continue with management issues. As we know, licensed activities of existing operations in or near MPAs will be able to continue as at present, but any new or extended operation that requires consent will have to be assessed against the conservation objectives. Are the panel members content for existing licensed operations to continue without being assessed against the conservation objectives? Do you have examples of currently licensed activities that could affect conservation objectives?

Calum Duncan: Those are good questions. We have previously said in a collective Scottish Environment LINK response that, ideally, we would like existing licensed activities to be assessed against sites' conservation objectives. The example that I gave of the sewage outfall on the maerl bed serves in this instance, too. In theory, on a site that had not been legally recognised for certain types of sea bed, consent could have been given for activities that might have an impact on the site. I do not have particular activities in mind, but the point of principle stands that the impact of existing activities on features should be considered.

I have just thought of an example. The Fetlar to Haroldswick site in Shetland is where the Atlantic and the North Sea meet, as we heard. That is a biodiversity hotspot for maerl beds, horse mussel beds and other biogenic features on the sea bed, and a number of fish farms are located there. Some of those fish farms are already on top of biogenic features, so there might be instances in which it would be worth considering whether that is appropriate. We are not saying that those activities should not be there; we are illustrating to the committee that, potentially, there are activities in a new designation that might have an impact on a feature that is newly legally recognised.

Mick Borwell: Our stated position would be that if the evidence was sufficient to designate the site, and the conservation objective is not recovery, the existing activity is not having an effect.

The Convener: That is laying down the gauntlet.

Dave Thompson has a question about fisheries and voluntary management measures.

Dave Thompson: The information that is before us states that MPA voluntary measures have been entered into by the SFF, the Scottish Creel Fishermen's Federation and the Western Isles Fishermen's Association. However, I notice that other associations are not involved, including the Mallaig and North West Fishermen's Association and others that relate to south Arran, Wester Ross and upper Loch Fyne.

How comfortable are people with the fact that the voluntary measures could run on for a while? How quickly would people wish them to be formalised rather than left as voluntary arrangements?

Ross Dougal: The voluntary measures came in out of necessity. As soon as the MPAs were designated, certain sites within them had to have protection, and voluntary measures were the way of doing it, pending the fuller discussions. I cannot say what the outcome of those discussions will be. It had to be done straight away to protect the Scottish Government, in effect, because I think

that infraction proceedings could have taken place if it had been shown that it had designated but not protected those features. I am surprised that the Mallaig and North West Fishermen's Association has not entered into the measures, as it was involved in the discussions.

Dave Thompson: It is good that some people have signed up. However, how do we ensure that those who have not signed up do not breach the voluntary arrangements?

Ross Dougal: That is a very difficult question and I do not have an answer to it.

With anything that is voluntary—there are various voluntary arrangements around the coast—we are relying on the good sense of the majority to comply. People are aware that the measures are necessary and that, if they are not complied with, a big stick will come down somewhere. They have therefore gone along with what they recognised needed to be done. No one knows what the full-term measures will be, but at that point the situation will be hardened up. However, there will always be an element that takes a free ride on the backs of others.

Calum Duncan: The voluntary measures are similar to what the Shetland Shellfish Management Organisation has adopted, and they are a good start. They illustrate the issues that will be discussed further down the line in terms of objectives. As the committee has probably heard, we might have more ambition in relation to protection and recovery. That said, we recognise the measures as a start.

For the record, our response to what were presented as likely management options as part of the fisheries displacement study of eight inshore MPAs is on the Marine Scotland website. We have set out the sort of measures that we believe are needed. The voluntary measures do not go as far as that, but those discussions are still to be had.

With regard to the principle of voluntary measures, we think that it would benefit the industry and everyone concerned to make the fishing management measures statutory once the objectives and the required management have been agreed. That would allow everyone to know where they stand, and the flouting of a statutory closure by a vessel would not bring the whole industry into disrepute.

A study that was carried out by one of our NGO members down south concluded that, where voluntary arrangements have been put in place, they have not been very successful. Without wishing to cast aspersions on those arrangements that have already been put in place, I think that, in the long term, it would be better for everyone to put the measures on a statutory footing.

Lloyd Austin: I reiterate those comments. Although we warmly welcomed the voluntary measures, we need to follow them up with discussions on objectives and management measures. The reason why that must happen and why we must move to properly based management measures can be found in Dave Thompson's supplementary question; those who were not signed up would get caught by the statutory measures. That is why we want those discussions to be progressed and the processes implemented.

Dave Thompson: The suggestion of putting such measures on a statutory footing is fine but, as with all these things, the problem is then, as the convener mentioned, how we police and enforce them. Public finances are being massively squeezed, so there is less and less available, and that situation could well continue for a number of years. There is no point in having laws and protections if they cannot be policed. Can anyone at the table answer that point?

Calum Duncan: That is a really important point. The ideal scenario would be a culture of compliance in which all stakeholders recognised why the measures have been put in place and their importance and wished to abide by them. Although they are not fisheries management measures, we would hope to continue to make the point about the secondary benefits that can arise from some of the protection measures. Good examples in the British isles show that statutory measures have led to, in the case of the Isle of Man, a 30-fold increase in the number of scallops and, in the case of Lamlash Bay, increases in the size of lobsters.

I realise that this is a fisheries management discussion, but we hope that where such measures are needed—we are not saying that they are needed everywhere—they will provide opportunities to test the benefits that, hopefully, all local stakeholders will be able to see. Moreover, that culture of compliance would be ideal for policing any floutings of the law.

We should also consider introducing vessel monitoring for smaller vessels, because global positioning systems allow us to see where vessel activity is taking place. GPS was recently used on lochs Duich, Long and Alsh to highlight certain activity with regard to protected features.

The ideal of a culture of compliance is not unattainable; all over the world, whether we are talking about the Leigh marine reserve in New Zealand or the Georges bank off the north-east coast of North America, fishermen fish the line because they can see the spillover effects. However, there are a lot of discussions to be had and studies to be done before we get there in Scotland.

11:45

The Convener: Broadening this out, I think that the on-land monitoring that should take place will need to cover inshore fishery groups and their relationship with the MPAs, which we have not yet discussed. After all, if these things are to work and to develop, those groups, more than anyone else, will have to be signed up to them.

I have an example from a constituent with regard to Fair Isle and the several orders there. There is a degree of concern about not local boats but boats from further afield flouting the rules—I will not mention exactly where. It comes down to the problem of whether there are onshore reviews and tie-up of the inshore fishery groups with the MPA development or several orders and the ships and aircraft that we have in the fishery protection squadron.

Should the fishery protection squadron also be an environmental protection squadron as part of its work, which would mean that it would need to be expanded? The ships, aircraft and so on that the Government has at its disposal are extremely limited.

Ross Dougal: The voluntary measures, as well as helping the Scottish Government out of a hole, were brought in simply because the rush to put in place statutory measures over the past years has meant that they have been littered with unintended consequences. Once statutory measures are in, it is the devil's own job to get the bad stuff out of them. It was agreed to bring in voluntary measures pending a proper joined-up discussion on what the full measures should be, so that we could get it right from the start instead of rushing in a statutory measure that could then turn out to have unintended consequences.

On the monitoring side, I will quote a skipper I know who has a smaller boat that is not big enough for the regulations on the vessel monitoring system or things like that. If he stands at his wheelhouse and stretches his arms out, his hands are out of the windows. He asked, "Where am I going to put this bit of kit that you want me to put on board?" Experiments have been done with a smaller system called Succorfish, but the trials have been a bit iffy. A lot of work is being done on the system. It is being trialled in south-west England—I think they have tried it around Lyme bay—but, so far, it is a work in progress.

The Convener: That is good to know.

Lloyd Austin: The challenge of compliance is an important one that we need to work through as part of the process. It is desirable to have more ways of monitoring.

The Scottish Fisheries Protection Agency was renamed Marine Scotland compliance, which

indicates that it is there to ensure compliance with all the marine regulations, irrespective of whether they are to do with fisheries, environmental issues or anything else. The question of whether the agency has enough resources has been raised, but it is now a marine compliance agency in the round, and the need for environmental training applies in much the same way as it applies on land for wildlife and environmental police officers, fiscals and so forth. More training and activity are needed on those environmental compliance issues. The more we can achieve what Calum Duncan called a culture of compliance, the better, so that enforcement and prosecution are the fallback options that are used occasionally, rather than the only way in which compliance is achieved.

Professor Hammond: Marine Scotland is already using its fisheries protection aircraft to survey for marine species. It now has a camera that takes digital photographs, and it has asked us to see how that could be used to estimate the abundance of cetaceans, so that type of activity is already happening.

The Convener: Mick, can you clarify whether there is any environmental monitoring from oil rigs? You talked about building up data. Is anyone who is employed in the oil industry monitoring the marine environment from what they see from the rigs?

Mick Borwell: The short answer is no, because everybody on the installation has a full-time job and there are not the beds to have somebody on the rig observing birds or cetaceans.

The Convener: Okay. Perhaps closed-circuit television could be used.

Ross Dougal: The SFF employs marine mammal observers to go on survey ships for oil and gas.

The Convener: So an infrastructure is beginning to be created.

Calum Duncan: I welcome the citizen scientists across all the sectors who are helping to build the evidence base.

I have a quick point—the Succorfish-type technology is mobile phone based.

Ross Dougal: The west coast is a problem.

Calum Duncan: It addresses the point about the size of systems, but there are other, technical issues.

Lloyd Austin: Mick Borwell made the point that his people have full-time jobs, but there are many good amateur naturalists amongst them who, when they are off shift, make observations and input them into surveys such as the British Trust for Ornithology surveys of seabirds and similar

citizen science projects for other species. Observations are made, although admittedly in off shift time, by good amateur naturalists. In the UK, a huge amount of our knowledge of the natural environment is from that amateur naturalist tradition.

The Convener: We will move on to further designations.

Nigel Don: We have talked about the areas that have been designated. Looking forward, it has already been mentioned that 14 SPAs are being discussed and will be consulted on. There are also four more possible MPAs that may be consulted on. I am interested in panellists' thoughts on whether those areas are appropriate, whether they are wanted, what they will achieve and what timetables we might be on.

The Convener: The Sea of Hebrides, north-east Lewis, the southern trench and the Shiant east bank are the four possible MPAs.

Dr Tetley: I go back to the timeliness of the designations. My International Union for Conservation of Nature task force on marine mammal protected areas started last October and was specifically about increasing, facilitating and bolstering marine mammals in such networks. I and my colleagues welcome the recommendations on the proposed sites and we think that it is a great leap forward in relation to meeting the targets at the highest international levels.

On the sites, great efforts are being made for minke whales, but I will admit that my colleagues and I think that further efforts could be made on additional sites for Risso's dolphins and a programme of work for white-beaked dolphins is also needed, which was not identified for any sites.

Professor Furness: We have a lot of SPAs with breeding seabirds as a feature, but that protection does not cover the activities of the seabirds when they are feeding at sea. It is crucial that we have SPAs that are designated for seabirds at sea. One of the problems with that is identifying where those SPAs should be because it turns out that most of our seabirds are very mobile and are very spread out across the entire UK waters.

If we want to find hotspots, it is difficult to identify them because most of the North Sea, as far as seabirds are concerned, is fairly similar habitat with fairly similar feeding opportunities. There are hotspots, but they are not very obvious and they are visible only for some species, so it becomes quite difficult to define them. That has been one of the challenges that have slowed up the process for seabirds. It is fine to do for inshore species, such as divers in coastal areas, but it is

much more difficult to do for pelagic seabirds. We have a big challenge in that regard.

Perhaps that leads on to the point that, for some of the more mobile species—this probably applies to marine mammals as well—there is a need to consider an ecosystem-based approach to conservation of those populations because site-based approaches may not be appropriate.

We have to be aware of the fact that there is a continuum from birds such as black guillemots, which stay in one place all the time so an MPA system is very appropriate for them, through to the opposite end of the spectrum, with birds that are travelling literally hundreds of kilometres and range over huge areas.

Claudia Beamish: My question follows on from Bob Furness's question about whether the seabird population can be protected in the way that SNH has said. SNH said:

"Current work on marine SPAs is expected to complete the Scottish MPA network for seabirds and marine waterfowl."

In view of Bob's remarks, I wonder how that could happen. Are there any comments on that?

Professor Furness: There will be some challenges, because it will be very difficult to find sites for some species. The network might be completed, in terms of what it is straightforward to achieve, but there may be holes that could cause us problems.

The Convener: With the six-yearly review, there is an opportunity to plug the holes.

Claudia Beamish: How do you see an ecosystem-based approach fitting in with the whole picture? How can that be taken forward if SPAs are going to be necessary to protect seabirds?

Professor Furness: We might have to think in terms of protecting the resources that seabirds need—in other words, food—on a wider scale. We might have to think about such things as sand eel stocks in the whole of UK waters, rather than on one specific little sandbank.

Lloyd Austin: We welcome the announcement of the new tranche of draft SPAs, which is a very good step forward for marine SPAs. It is important that we recognise that that is not the end. The quotation that Claudia Beamish read out talked about SNH's current work, which does not include only the new tranche of SPAs. We are aware that work is going on that is looking at the seabirds at sea data, to which Bob Furness and Mick Borwell referred, and new data that is collected using satellite tags that are put on seabirds in order to identify hotspots. Our understanding is that that analysis could or will lead to the identification of

further hotspots as SPAs. It is important that that work is completed; if it identifies more SPAs they should be added to the tranche. If we do not do that, we will not have a coherent network of SPAs. We believe that the process will identify some areas that are not in the tranche, but that should be added.

On Bob Furness's comment on the ecosystem approach, the issue comes back to all the widely dispersed and migratory species that we were talking about—seabirds, cetaceans, sea trout and so on. Although ecosystem-wide measures need to be taken, the issue is really about making sure that the planning, which is really the ecosystem-wide measures, works hand in hand and holistically with site mechanisms.

Where we can identify feeding hotspots and important places for migration or parts of a life-cycle, it is important that protected area mechanisms are applied to bits of these migratory and mobile species' lifestyles as part of the measures. They are complementary; they are not alternatives. We need sites to deal with some of the issues, and ecosystem-wide measures to deal with some of the others. It is not an either/or situation.

The one question that I would have on draft SPAs would be regarding the Scottish Government and indeed other Governments in the UK—and of course EU policy—and whether what are called proposed SPAs are treated as if they were designated, in relation to decisions that might be taken that affect them. That applies on land, in Scottish planning policy, for instance. I would welcome some clarity from the Scottish Government as to whether the word "draft" has been picked to demonstrate that such sites are not proposed, or whether it is just a different type of wording. In other words, my question is: does the SPP policy on proposed SPAs apply to draft SPAs?

The Convener: We will ask the Cabinet Secretary for Rural Affairs and the Environment about that next week, for sure.

12:00

Professor Hammond: To follow on from the discussion about birds, marine mammals are, indeed, very similar to seabirds in terms of their life history and ecology. My view is that marine protected areas must be seen as being only part of the solution for conserving and protecting marine mammals, as MPAs range very widely. However, the proposed MPA for the Risso's dolphin is a good example because there is good evidence that those animals are seen in that area all the time and that it is somewhere they like to be. However, MPAs for other species might not

have that much effect as marine animals are already protected under the law.

We should think about the other threats to marine mammals, such as bycatching fisheries and increasing noise from shipping and other disturbance. Such threats will not be mitigated by MPAs. So, following on from what was said about seabirds, MPAs must be seen as part of the solution but by no means as the only solution.

The Convener: Thank you for that.

Calum Duncan: Dr Mike Tetley and Lloyd Austin have already outlined why the network is not yet complete for cetaceans and seabirds. The SNH and Joint Nature Conservation Committee advice recognised that the four new sites are needed, but we do not agree with the conclusion that those sites plus some of the SPAs will mean that the network will be complete. We have heard the reasons why that is the case for cetaceans and seabirds, but they also apply to basking sharks and other species. In addition, points in the advice show why the network will not be complete.

The report to Marine Scotland overtly acknowledged that there are gaps, and there is duplication. A coherent network needs to protect enough of the populations and the range of species and habitats, and has to have replication of sites in order to increase resilience. There is only one site for the common skate, but there is recognition that there should be more. There is going to be only one site for basking sharks and only one site for the white-beaked dolphin. That lack of replication of sites is recognised in the advice.

It was touched on earlier that it is recognised that the spiny lobster and heart cockle aggregations and burrowing anemones would benefit from area-based protection. That suitable areas have not been found for them does not make them any less important in relation to getting protection.

The advice also states that further research is needed to improve connectivity between sites. So, some of the research could show that some of the sites are not close enough together and that we need new sites to get that connectivity.

The Convener: Yes. Thank you for that.

Dr Tetley: Just to clarify for the record, there is one site for the Risso's dolphin, rather than for the white-beaked dolphin.

To follow up on Phil Hammond's comments, I totally agree that spatial measures for conservation of cetaceans, marine mammals and mobile species require holistic and well thought out management that encourages both sectoral management and site-based protection measures. I agree, too, that in some cases single MPAs are

not appropriate for achieving conservation objectives for species including marine mammals. However, consideration of mobile species and MPAs within a network to address the different areas of critical habitat, where they are identifiable, does work and has been proved to work successfully for the conservation benefit of mobile species and the ecosystem services that they generate.

The Convener: I thank everybody very much for your contributions to an extremely even-tempered evidence session that has been incisive in a number of ways. As I mentioned, we will question the Cabinet Secretary for Rural Affairs and the Environment about how we designate, police and fund. Our questions to him will be searching and will seek to find out what he thinks the current state of play is, and to explore the evidence that you have provided to us in the context of what the Government is carrying out. We look forward to that.

We will start next week's public meeting at 9.30 and will deal with the agricultural holdings legislation review with the cabinet secretary, and with the Scottish Government's designation of marine protected areas.

Meeting closed at 12:04.

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e-format first available
ISBN 978-1-78457-858-9

Revised e-format available
ISBN 978-1-78457-872-5