



House of Commons
Innovation, Universities,
Science and Skills Committee

**Sites of Special
Scientific Interest**

Tenth Report of Session 2008–09

*Report, together with formal minutes, oral and
written evidence*

*Ordered by the House of Commons
to be printed 20 July 2009*

The Innovation, Universities, Science & Skills Committee

The Innovation, Universities, Science & Skills Committee is appointed by the House of Commons to examine the expenditure, administration and policy of the Department for Innovation, Universities and Skills.

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The Committee is one of the departmental Select Committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No.152. These are available on the Internet via www.parliament.uk

Publications

The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the Internet at www.parliament.uk/ius. A list of reports from the Committee in this Parliament is included at the back of this volume.

Committee staff

The current staff of the Committee are: Sarah Davies (Clerk); Glenn McKee (Second Clerk); Dr Christopher Tyler (Committee Specialist); Xameerah Malik (Committee Specialist); Andy Boyd (Senior Committee Assistant); Camilla Brace (Committee Assistant); Claire Cozens (Committee Assistant); Kerrie Hanley (Committee Assistant); Jim Hudson (Committee Support Assistant); and Becky Jones (Media Officer).

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1 Introduction

1. The Government has a commitment to pursuing an evidence based approach to policy making with an emphasis on the role of science, as the Science and Technology Committee noted in its 2006 Report *Scientific Advice, Risk and Evidence Based Policy Making*.¹ In May 2009 we decided to hold a one-off evidence session on Sites of Special *Scientific* Interest (our emphasis). Although these fall under the remit of the Department for Environment, Food and Rural Affairs (Defra) we were interested in assessing the scientific evidence base used for designation and monitoring.

2. The evidence session took place on 17 June and involved the Joint Nature Conservation Committee (JNCC) (which has a “responsibility to promote common standards throughout the UK for the monitoring of nature conservation and the analysis of the resulting information”²), the National Farmers’ Union (NFU) and the Wildlife Trusts; followed by Natural England and Dr Peter Costigan, Natural Environment Science Division, Department for Environment, Food and Rural Affairs. Natural England has a key role in the SSSI process because it has a “statutory duty to notify land as SSSI which in its opinion is of ‘special interest’ by reason of its wildlife (habitats and species) or geology.”³

3. In addition we received written evidence from the Royal Society for the Protection of Birds⁴ and drew on the National Audit Office Report *Natural England’s role in improving Sites of Special Scientific Interest*, which was published in November 2008.⁵

4. The background to the system of SSSI designation is set out in the written evidence we received. The process can sometimes be controversial; Dr Helen Phillips, Chief Executive of Natural England, explained:

Coming to the wider point about the suspicion [that sites are designated sometimes for not very objective purposes] I think to be frank it would be pretty difficult for lobbying to get a site of special scientific interest through. [...] The process by which the notification occurs is extraordinarily rigorous [...] I would not say that we have had judicial reviews more times than we have hot dinners, but we have certainly had our fair share of judicial reviews, all of which have shown that the process is robust.⁶

5. There were several issues raised during the session that we wanted to put on the record to elicit a response from the Government.

1 House of Commons Science and Technology Committee, Seventh Report of Session 2005-06, HC 900

2 Ev 20

3 Ev 16, para 3.1.2

4 Ev 22

5 NAO, *Natural England’s role in improving sites of special scientific interest*, HC (2007-08) 1051, November 2008

6 Q 46

2 Guidelines for Selection of Biological SSSIs: need for revision

6. The *Guidelines for Selection of Biological SSSIs* were first published in 1989 – four decades after the SSSI system was originally introduced.⁷ The JNCC described the Guidelines (and the *Introduction to the Geological Conservation Review* produced in 1996) as “the key documents for the agencies in informing decisions on the identification of biological and geological SSSIs, respectively.”⁸

7. We discussed with witnesses the purpose of the Guidelines and how they are used when making designations. Andrew Clark of the NFU commented:

I certainly feel that it is a rational set of criteria; whether it is scientific in the sense that you have used the phrase with metrics and thresholds it is definitely not the case and I think that is recognised in the guidelines themselves [...] they are matters of opinion; they are guidelines; they are not thresholds.⁹

8. Andrew Stott of the JNCC acknowledged that this was a matter of balance and judgement:

There are guidelines which are produced which relate to the particular features and thresholds of those particular features but ultimately the legislation allows for the judgment of the conservation agencies in the designation of sites.¹⁰

Updating the Guidelines

9. One quality-related issue on which there seemed to be general agreement was that, despite some amendments made in the last 20 years, there was a need for the Guidelines to be revisited. Andrew Stott of the JNCC explained:

the Chief Scientists Group of the Joint Nature Conservation Committee and the agencies reviewed the guidelines and decided that they were in need of update. They need updating in order to take account of legislation, changes in administration and also to take account of issues like climate change which were not really considered to be significant issues when they were originally drawn up.¹¹

7 The National Parks and Access to the Countryside Act 1949 defined the meaning of ‘nature reserve’ as including land managed for preserving flora, fauna, geological or physiographical features of special interest in the area. It created the Nature Conservancy (NC) and gave them the power to acquire land for establishment and maintenance of nature reserves, make byelaws on nature reserves and to enter into agreements with owners of land of national interest to be managed as nature reserves. The NC was also charged with the duty to inform local planning authorities of any Sites of Special Scientific Interest (SSSIs). (source: defra website www.defra.gov.uk/wildlife-countryside/protected-areas/ssi/legislation.htm). See also Q 12, Q 44, Ev 16 and Ev 32

8 Ev 21 [JNCC]

9 Q 12

10 Q 4

11 Q 6

10. He added later in the evidence session that “This is an issue which the Joint Committee is considering next week.”¹² Such a review exercise was endorsed by Andrew Clark of the NFU, who made the point that while the Guidelines “might be rational they need also to be explainable so that those who own and manage these sites feel a real regard towards their science and an understanding of why they have been designated.”¹³

11. Dr Helen Phillips, Chief Executive of Natural England, took the view that the Guidelines were “largely fit for purpose”,¹⁴ but acknowledged that there were “four categories of criteria in respect of which the guidance could do with being updated”:¹⁵

- *Impact of devolution*: “reflecting the fact that the administrative arrangements have changed and devolution has kicked in”
- *Species gaps*: “to recognise the gap where there were species or habitat areas missing”
- *Climate change*: “site selection in the face of the pressures of climate change which had not been explicitly factored in post-1989”
- *Threshold criteria*: “In terms of looking for sites that contribute to a representative sample of a particular type of habitat in the country, a couple of decades ago we might have felt that one particular level was appropriate whereas now because [of] different environmental pressures, including climate change, a different threshold might be suitable”.¹⁶

12. After the meeting we received a follow-up note from the JNCC which repeated the point made that the Guidelines remained “broadly fit for purpose” but needed “updating”. The submission continued:

The Joint Committee agreed at its meeting on 22 June 2009 that whilst the priority of work to revise the SSSI selection guidelines varied between country conservation bodies, this should be given a higher priority within JNCC. The resource requirements and options for delivering this, and other high priority work to establish UK-wide conservation standards, should be reported back to the next meeting of the Joint Committee in September.¹⁷

13. When questioned about the potential for commissioning an independent review of the Guidelines, Dr Helen Phillips replied:

it would be quite difficult [...] because, to be fair to JNCC, a lot of what they are doing is coordinating and facilitating the efforts of very august scientists in their field. There are not large numbers of people who understand the ecology of Britain

12 Q 41

13 Q 12

14 Q 44

15 Q 55

16 Q 44

17 Ev 26

better than the folk who are employed either by us, Scottish National Heritage and Countryside Council for Wales.¹⁸

14. She acknowledged that this “does rather raise the question of quality assurance.”¹⁹

18 Q 57

19 Q 58

3 The evidence base for changing the designation of SSSIs and other issues

Redesignation

15. The National Audit Office noted in its 2008 Report that between 2001 and 2008, 23 sites (1%) were re-classified following changes in features and only one site partially denotified, with 55 new sites having been notified.²⁰ This lack of turnover of existing sites is at first sight curious given that, as the Natural England memorandum put it, “the natural environment is dynamic”,²¹ a point expanded on by Brian Eversham from the Wildlife Trusts who commented “the interest features of sites are going to change subtly but significantly over the next ten, 20 or 30 years.”²²

16. Our concerns that SSSI designation could be seen to be a one-way process were heightened by a case set out in the NAO report of Attenborough Gravel Pits in Nottinghamshire, where even though the original features for which it was designated changed, the site remained classified for different reasons:

[The site was] first designated as a site in 1964 because of its importance as a refuge for over-wintering waterfowl and to sustain an important breeding bird community. Use of the site by birds has changed and the features for which it was originally classed as important are no longer present but have been replaced by new species of equal importance. These new features are not listed on the original designation and, accordingly, Natural England is re-classifying the site so that the important features are formally recorded.²³

17. We raised these issues with Natural England. Christina Cork, Principal Specialist for Protected Areas, explained that through a new Notification Strategy Natural England was looking at the existing sites, or the “current series”, as a whole and evaluating them on their merits:

The first stage review is: what do we currently have SSSIs for and how are they valued? Have we got the right things in the series at the moment or are there any gaps? [...] Then, what do we currently have for those habitats and those species within a series? [...] We then need to form a view on the adequacy of the current series against those standards.²⁴

18. When asked whether the review exercise would result in a further increase in the number of SSSIs, Dr Helen Phillips replied:

20 NAO, *Natural England's role in improving sites of special scientific interest*, HC (2007-08) 1051, November 2008, para 2.20

21 Ev 16, para 3.1.2

22 Q 32

23 NAO, *Natural England's role in improving sites of special scientific interest*, HC (2007-08) 1051, November 2008, Box 5

24 Q 64

we have done an initial assessment based on analysis of two regions and suggest that the potential scope for amendments or re-notifications is of the order of less than ten per cent. So this is not a whole scale exercise about needing to totally review it, but it does recognise that there may need to be some changes. Those changes will probably be principally about extending sites where we have worked out that the ecology of the site is dependent on some parameters or criteria or available land outside of it rather than a whole scale series of new sites. *The previous National Audit Office in 1993 confirmed that they thought the series was more or less complete and that would continue to be our view.*²⁵ [our emphasis]

19. After the evidence session Natural England supplied us with its draft copy of the Notification Strategy, which is printed with this report. The Strategy made the very important point that “The review should also consider denotification of sites (or parts thereof) that are not considered to be of special interest, to ensure the series as whole is not devalued.”²⁶

Impact of SSSI status on land values

20. The NAO report quoted research commissioned by the Scottish Executive which “suggested that SSSI notification had not had any significant effect on land values” but added a very significant caveat:

The conclusions of the study cannot be easily applied to England because a high proportion of Scottish sites are remote from population centres and therefore not subject to demands from development, which can have a significant impact on land values. Whilst it is difficult to establish whether the notification of a SSSI has an adverse impact on land value, there are benefits in owning a SSSI. Such land, for example, is exempt from inheritance tax. SSSIs also provide economic benefits through tourism.²⁷

21. We asked the Chief Executive of Natural England if a similar exercise had been carried out or was being planned to cover English sites, but were told “When we quote that figure, which we do, we are relying on their [the Scottish Executive] assessment.”²⁸

Other issues

22. We were pleased to note that in general the relationship between Natural England and landowners seemed to be good, with issues to be resolved described by Andrew Clark of the NFU as “irritating detail rather than fundamental problems.”²⁹ Other issues we covered in evidence but do not comment on in detail in this report were:

25 Q 45

26 Ev 28, para 2.3

27 NAO, *Natural England's role in improving sites of special scientific interest*, HC (2007-08) 1051, November 2008, para 3.6

28 Q 76

29 Q 19

- Monitoring of SSSIs by volunteers and Natural England staff;³⁰
- The relationship between SSSI designation and the Habitats Directive – an issue which relates to our points on redesignation above and which we consider would merit review by Natural England at an early stage, or further scrutiny by the EFRA Committee;³¹ and
- Incentive schemes.³²

30 Q 29 [Wildlife Trusts and NFU], Q 40 [Wildlife Trusts]

31 Q 36 [JNCC]; Qq 47-49, Q 65 [Natural England]. See also Ev 27.

32 Q 20 [NFU], Q 69 [Defra]

4 Conclusion

23. We welcome Natural England's decision to review the existing SSSI series through a new Notification Strategy. The acknowledgement that "denotification of sites (or parts thereof) that are not considered to be of special interest" is an important way of ensuring that "the series as whole is not devalued" is an important one. We trust that Natural England will take this point forward and actively manage its SSSI series to reflect the dynamic nature of the environment.

24. We recommend that Natural England commission research on the impact of SSSI status on land values in England, rather than relying on statistics based on Scottish data where the sites are often of a very different nature.

25. The review process must be soundly based on up-to-date evidence and scientific knowledge. The points made by the Chief Executive of Natural England that the Guidelines for Selection of Biological SSSIs need updating, in part to reflect the pressures of climate change, therefore merit urgent attention. We welcome the news that the JNCC is giving this work a higher priority but, given that it is now 20 years since the Guidelines were first produced, this work must not be allowed to drift: a timetable should be established and published as soon as possible and there should be a process of consultation with interested organisations.

Formal Minutes

Monday 20 July 2009

Members present:

Mr Phil Willis, in the Chair

Mr Tim Boswell
Dr Evan Harris
Dr Brian Iddon

Mr Gordon Marsden
Ian Stewart
Graham Stringer

The Committee deliberated.

Draft Report (*Sites of Special Scientific Interest*), proposed by the Chairman, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 25 read and agreed to.

Resolved, That the Report be the Tenth Report of the Committee to the House.

Ordered, That the Chairman make the Report to the House.

Written evidence was ordered to be reported to the House for printing with the Report.

[The Committee adjourned.]

Witnesses

Wednesday 17 June 2009

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Brian Eversham, Conservation Director of the Wildlife Trust for Bedfordshire, Cambridgeshire, Northamptonshire and Peterborough, **Andrew Stott**, Director of Science, Joint Nature Conservation Committee and **Andrew Clark**, Head of Policy Services, National Farmers' Union

Ev 1

Dr Helen Phillips, Chief Executive and **Ms Christina Cork**, Principal Specialist for Protected Areas, Regulatory Services and Access Team, Natural England and **Dr Peter Costigan**, Science Co-ordinator for Environment and Rural Group, Department for Environment, Food and Rural Affairs

Ev 8

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List of written evidence

1	Natural England	Ev 15, 26
2	Joint Nature Conservation Committee	Ev 19, 25
3	Royal Society for the Protection of Birds	Ev 21
4	National Farmers' Union of England and Wales	Ev 22

List of Reports from the Committee during the current Parliament

The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

Session 2008–09

First Report	Re-skilling for recovery: After Leitch, implementing skills and training policies	HC 95 (HC 922)
Second Report	The Work of the Committee 2007-08	HC 49
Third Report	DIUS's Departmental Report 2008	HC 51-1 (HC 383)
Fourth Report	Engineering: turning ideas into reality	HC 50-1
Fifth Report	Pre-appointment hearing with Chair-elect of the Economic and Social Research Council, Dr Alan Gillespie CBE	HC 505
Sixth Report	Pre-appointment hearing with Chair-elect of the Biotechnology and Biological Sciences Research Council, Professor Sir Tom Blundell	HC 506
Seventh Report	Spend, spend, spend? – the mismanagement of the Learning and Skills Council's capital programme in further education colleges	HC 530
Eighth Report	Putting Science and Engineering at the Heart of Government Policy	HC 168
Ninth Report	Pre-appointment hearing with Chair-elect of the Science and Technology Facilities Council, Professor Michael Sterling FREng	HC 887

Session 2007–08

First Report	UK Centre for Medical Research and Innovation	HC 185 (HC 459)
Second Report	The Work and operation of the Copyright Tribunal	HC 245 (HC 637)
Third Report	Withdrawal of funding for equivalent or lower level qualifications (ELQs)	HC 187-1 (HC 638)
Fourth Report	Science Budget Allocations	HC 215 (HC 639)
Fifth Report	Renewable electricity-generation technologies	HC 216-1 (HC 1063)
Sixth Report	Biosecurity in UK research laboratories	HC 360-1 (HC 1111)
Seventh Report	Pre-legislative Scrutiny of the Draft Apprenticeships Bill	HC 1062-1 (HC (2008-09)262)
First Special Report	The Funding of Science and Discovery Centres: Government Response to the Eleventh Report from the Science and Technology Committee, Session 2006-07	HC 214
Second Special Report	The Last Report: Government Response to the Thirteenth Report from the Science and Technology Committee, Session 2006-07	HC 244
Fourth Special Report	Investigating the Oceans: Government Response to the Science and Technology Committee's Tenth Report of Session 2006-07	HC 506 [incorporating HC 469-I]

Oral evidence

Taken before the Innovation, Universities, Science and Skills Committee on Wednesday 17 June 2009

Members present

Mr Phil Willis, in the Chair

Mr Tim Boswell
Mr Ian Cawsey
Dr Evan Harris

Dr Brian Iddon
Graham Stringer

Witnesses: **Brian Eversham**, Wildlife Trusts, **Andrew Stott**, Science Director, Joint Nature Conservation Committee and **Andrew Clark**, Head of Policy Services, National Farmers' Union, gave evidence.

Chairman: Good morning. Could I welcome our first panel of witnesses to this topical inquiry into Sites of Special Scientific Interest (SSSIs)? We welcome Andrew Stott, the Director of Science at the Joint Nature Conservation Committee; Andrew Clark, the Head of Policy Services at the National Farmers' Union; and Brian Eversham, the Conservation Director of the Bedfordshire, Cambridgeshire, Northamptonshire and Peterborough Wildlife Trusts (that is one of the biggest titles we have had). Welcome to you all. A number of my colleagues wish to declare interests so we will do that now.

Mr Boswell: I ought first to declare or remind members of my ownership of land which is set out in the Register of Members' interests. This gives rise to the declaration of two other interests, one is that I am a member of the National Farmers' Union and indeed a former county officer and secondly, I had no part in the selection of Brian, but I think I should tell him I am one of his members as well.

Q1 Chairman: Andrew Stott, I wonder if we could start with you. Given that SSSIs are Sites of Special Scientific Interest, what scientific evidence is used in their designation?

Mr Stott: The criteria which were developed originally by the Nature Conservancy Council set out a range of aspects of the science which includes the representativeness of the site, the nationalness of the site, the size, distribution and coverage of special features. The criteria laid out for the science selection are based on the science of the distribution of the habitats and species.

Q2 Chairman: There is not much science there really, is there?

Mr Stott: The science is the natural history of the UK, the distribution of species and habitats.

Q3 Chairman: The point I am making, Andrew, is that whatever piece of land you care to look at from Land's End to John O'Groats you will find those very same things to a greater or lesser degree that you have just described as part and parcel of the scientific view of what one of these areas is. We can go to College Green and do the same so why is that not such an area?

Mr Stott: Well it is the special interest I think which is the key aspect of that. It is the features which generally you will not find anywhere else apart from in these particular areas or the most representative examples of those features that you only find in these particular places.

Q4 Dr Harris: I think the question is, is this independently or objectively evaluated against some criteria that have figures or metrics of some kind or is it alternatively is that as long as they pass the threshold and there is enough lobbying that is what triggers it? Or is it a combination of the two?

Mr Stott: There are guidelines which are produced which relate to the particular features and thresholds of those particular features but ultimately the legislation allows for the judgment of the conservation agencies in the designation of sites.

Q5 Chairman: Are you happy with the criteria as they stand now?

Mr Stott: I think we recognise that the criteria are somewhat out of date.

Q6 Chairman: So you would agree they need to be reviewed.

Mr Stott: Yes. Quite recently the Chief Scientists Group of the Joint Nature Conservation Committee and the agencies reviewed the guidelines and decided that they were in need of update. They need updating in order to take account of legislation, changes in administration and also to take account of issues like climate change which were not really considered to be significant issues when they were originally drawn up.

Q7 Chairman: Brian Eversham, do you share these concerns that the guidelines perhaps need to be changed and is there enough science in actually making the decisions? Are they objective enough?

Mr Eversham: What I would say is that designations go back 50 years in many cases and were based on the best available evidence at the time. Since that time we have had considerably more survey work carried out. My take on this is that it is really a question of quantifying habitat and identifying

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habitat quality across the country. We have done that nationally through the SSSI system and at a county base over most of England now through the local wildlife science system according to Defra guidelines. That new survey has actually identified a lot more sites which are of similar quality to SSSIs. I did a quick analysis of my own three counties and in that patch we have 175 SSSIs; they average 79 hectares a piece, so relatively large sites. We have identified 1620 local wildlife sites but they only average 17 hectares, so given that size is one of the most important criteria for quality and for sustainability of wildlife habitats then I think it is fair to say that many of the SSSIs are sites which have been extremely well known and highly regarded for a very long time. Among the larger ones in my patch places like Woodwalton Fen was recognised in the mid 19th century as being uniquely important and one of the few fragments of intact fenland habitat. Many of the bigger SSSIs have been well known for a very long time and they are pretty well regarded no matter what group of plants or animals one happens to be studying. These sites were designated mainly on botanical criteria but they happen also to be nationally or internationally important for their invertebrate assemblage and often for their breeding birds.

Q8 Chairman: Back in 1989 the guidelines for selection of biological SSSIs suggested that the sites should be called sites of Nature Conservation Interest. Is that not a better title rather than of special scientific interest? What we are talking about really is nature conservation.

Mr Eversham: It certainly is about nature conservation. I think part of the difference is that back in the 1940s when the act was first drawn up ecology was very much a descriptive science so that in those days ecology was about plant and animal communities out of doors. These days most university ecology tends to be laboratory based, it tends to be rather more restrictive, so science has changed its focus, if you like. Some of us would maintain that we still need to understand ecological process at the landscape scale and that if there are shortcomings in this network they are more likely to be around climate change affecting the network and how science interacts with that around the countryside. We may come onto this in more detail when we talk about the monitoring but I think seeing sites in that landscape context is one of the big changes in the focus both of biological conservation but also of the way that agencies and government look at ecological functions and the whole concept that SSSIs have to play in ecosystem services.

Q9 Mr Boswell: Following those exchanges I would like to get a better handle on what the objectives are, particularly I think for fauna rather than flora where there are local designations as it were supplementing the SSSIs. Do you sense that the majority designations as SSSIs are because of the inherent interest or rareness of the flora or fauna on the site? Or are they foci for a wider population or a basis for reestablishment? Obviously if there is only one

orchid in the country I can well understand why there is a SSSI. On the other hand in certain cases you may be trying to rebuild a base. I am just trying to get a handle on what the motives are which I think, in a sense, have already been touched on.

Mr Stott: Originally the purpose was to have a representation of the full range of habitats.

Q10 Mr Boswell: A collection like Noah's Ark, to put it at the extremely rare end.

Mr Stott: Yes, but not just the rare because it is also focussed on a representative range. As time has gone on there has been a decline in many of these features in the rest of the undesignated countryside so the sites have increased in importance in that respect and have become more of a source and a reservoir for perpetuating those species and also enabling them to recolonise or spread and disperse potentially in a changing climate. The role has changed from its original purpose to one where they actually have an additional function in relation to a more dynamic ecology.

Q11 Dr Iddon: Community groups quite often apply for SSSI designations as a result of planning applications. I have a famous railway cutting in my constituency and you would be surprised what people have found in that. Of course the greater crested newt is famous among community groups. How many of these SSSI sites have actually been designated as a result of pressure like that?

Mr Clark: I think in a sense you might have picked up on the pressure groups with the reference to nature conservation interest. These sites are of special interest and there are interest groups that have special interest in the features within them and the species within them. I suspect that is the reason why a number of these sites have been designated in a sense that that is a rational basis for designation of a national set of important sites and sometimes internationally important sites. I am not absolutely certain but I think Andrew in his evidence already has said that there is a recognition within JNCC that the criteria are out of date and need to be reviewed.

Q12 Chairman: Would you support that?

Mr Clark: I think they do. In researching the evidence that we have submitted to you I was quite taken by the fact that the guidelines for the designation of biological sites were not finalised until 1989. When you actually go and look at that the PDS typewritten script is very, very different to the type of presentation that we currently have. I certainly feel that it is a rational set of criteria; whether it is scientific in the sense that you have used the phrase with metrics and thresholds it is definitely not the case and I think that is recognised in the guidelines themselves. I quote from our evidence on page 20: "In the last analysis each case rests on matters of opinion. It is not intended that anyone would try to apply these guidelines as a rule book". So they are matters of opinion; they are guidelines; they are not thresholds. I think there might be some internationally designated sites—special protection areas for bird conservation—which are based on

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thresholds of population numbers. From my point of view, representing farmers groups, it is very important that there is transparency about thresholds, about the guidance and about the criteria. Whilst these might be rational they need also to be explainable so that those who own and manage these sites feel a real regard towards their science and an understanding of why they have been designated.

Q13 Graham Stringer: Just before I come back to Mr Clark, can I ask Mr Stott, to try to get a handle on how SSSIs come about, there have been 55 new sites since 2001, can you give us an idea of how those sites have been decided upon?

Mr Stott: No, I am sorry I cannot. You will have to ask that question to Natural England. JNCC does not have responsibility for notifying sites.

Q14 Graham Stringer: You monitor them.

Mr Stott: We provided the guidance on site selection which, as we said, is in some cases a bit out of date and we also provide guidance on the monitoring of those sites. We do not actually notify sites or undertake the monitoring ourselves.

Q15 Graham Stringer: On a site like the Attenborough Gravel Pits where the birds that were originally designated under SSSIs have gone (according to the National Audit Office Report) but it still retains its designation, are you involved in the monitoring of that site and the recommendations as to whether it continues its SSSI status?

Mr Stott: No, that is entirely Natural England's responsibility.¹

Q16 Graham Stringer: That is clear and helpful. If I can move onto Mr Clark, I read your evidence with interest and I would like you to comment on it. I felt there was a tension in it. You have said to the Committee that there is a rational basis for the designation of these SSSIs but reading between the lines I just felt that you thought that some of that had not been reasonably designated and had led to conflicts. Is that fair?

Mr Clark: Reading between the lines you are right. Having looked at the guidance I think it is quite interesting that for 40 years of designations of SSSIs there was not a set of national guidance. I guess that at that stage most of the designations were done on the basis of interest of local guidance and submitted to the Nature Conservation Council for ratification. I think because we are in a completely different countryside now and looking ahead over the next 60 to 70 years with climate change, I suspect we need to have a rather different basis for designation and I think that we should be looking—JNCC and Natural England and CCW do need to look at these sites—at whether they are still relevant, are they still necessary? For example the great crested newts,

which I know is a European species of priority, are found in an awful lot of ponds. We need to have some, but do we need to have the protection that is granted to the level it is granted on every single site? There are questions. I am not saying that there needs to be action, but I think they need to be open questions and a review of that.

Q17 Graham Stringer: Are you asking for a review of all the pre-1989 or 1981?

Mr Clark: There has been an incremental growth in terms of SSSIs over that period and those obviously are the ones that since then have been subject to the guidelines. I think Natural England have already started to look at some of their character areas to see how those parts of the countryside need to change or will change as a result of climate change. I think the context for conservation is different now with the fact of climate change, with the impact of the Water Framework Directive and with our knowledge of where species are and their frequency. There needs to be some further review of that.

Q18 Graham Stringer: What percentage of the land managed by your members are SSSIs? Can you give us either anecdotal evidence or real evidence of the problems caused by SSSIs?

Mr Clark: In terms of area probably 60 or 70 per cent but I suspect that much of the area of designated sites is actually estuary and marine sites and the wash and those sorts of things. Of the terrestrial sites I would have thought that the vast majority of sites are managed and occupied by agricultural activities. Even those owned by RSPB are often managed in some way with agricultural activities in mind. In the sense of our interest there is a real interest and there is a real need to ensure that there is a participation between environmental interest and food production at the same time. In terms of the tensions, I think there are fewer tensions now than there used to be. Certainly after the 1981 act there was quite a lot of tension around SSSIs. However, if we go looking for tensions now we still continue to find them. They are not life stopping; they are more issues of detail and irritations.

Q19 Graham Stringer: Can you give us examples?

Mr Clark: The sorts of things we are getting are that some of these sites are very small and they are actually difficult to manage from a land management or farming point of view. Certainly in terms of sustaining some of the livestock regimes which many of these sites require, that needs farm scale activities. You cannot just manage a site of five acres. Live stock farming is already on the economic margin with extensive grazing and some of these sites are simply too small to manage and it becomes more like a case of gardening than farming and land management. I would say that the critical point I want to bring across to the Committee is that that of relationships and communication. It is absolutely essential that those who own and manage sites understand the reasons for designations, have a good relationship with Natural England about how their sites are managed. Occasionally we find that

¹ *Footnote by witness:* The JNCC does commission and manage some national monitoring schemes for different groups of species including birds, mammals, butterflies, and to a much lesser extent other invertebrates and plants. These schemes include, but are not necessarily targeted at SSSIs.

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discontinuity between the officers within Natural England causes problems for our owners and occupiers; they do not know who they should be dealing with. One officer will come along and have a particular interest in one aspect of the site; the next officer might not have the same interest in that site. Consistency of interaction between Natural England and the farming community is absolutely essentially. Finally, sometimes there is a feeling amongst my members that there is more of a box ticking mentality than a partnership. I know that Natural England is under a huge amount of pressure to get favourable condition across sites and on occasion we find that sometimes it is a case of signing the management plan and the relationship is finished, whereas we would like to see an on-going relationship and discussion about the detail of that site. We need to have that continuity across the board. As I say, I think it is a case of irritating detail rather than fundamental problems.

Q20 Mr Boswell: Are the incentive schemes sufficient and effective?

Mr Clark: In most part the incentive schemes were effective, certainly in the wider countryside. I think there have been some frustrations in the last three or four years with the higher level scheme which is particularly targeted on Sites of Special Scientific Interest. There is rather a stop/go feeling about whether this high level scheme is going to be available to all those who own and manage SSSIs and whether the funding will be available to put in place the right sort of management.

Q21 Dr Harris: I just want to come back partly to the first question and partly following that. As I understand it the JNCC produce guidelines under which Natural England decide what should be proposed as SSSIs and then they go through a consultation process. Is that correct?

Mr Stott: That is correct.

Q22 Dr Harris: If you look at post-guideline notifications—if we looked at them now—would there be a way of predicting which sites have been designated because it is obvious that they fulfil certain criteria or is it more of an art than a science in respect of the whole process?

Mr Stott: It is a combination of both. It is based on the evidence for what features are on the site matched against the guidelines. Looking back over quite a long period of time the quality of the evidence is not perfect; there are not complete surveys of all the features or all the habitats and therefore there has to be an element of judgment in relation to the quality of that evidence and its interpretation.

Q23 Dr Harris: As far as you know there has never been an independent or blinded evaluation of whether Natural England's decisions are rational even in the context of the variable amount of evidence that might exist over time. In other words, if you took the names off and someone independent

came and looked at something that had the designated with the evidence, that exercise has never been done.

Mr Stott: I am not aware that exercise has been done but there are some comparative studies which would track trends within protected sites versus wider countryside.

Q24 Dr Harris: Do you see merit in there being some limited exercise, a check so that the public can have confidence that the outcome of the system is rational? Or is it enough to have the process as it is now?

Mr Stott: I think the process is quite robust.

Q25 Dr Harris: Finally on that, after you produce your guidelines, Natural England make propositions and presumably at some point there is lobbying of Natural England by people who say yes or no to this proposition. Are you concerned that that might be over-influential to Natural England who make these decisions based on the strength of the lobbying campaign for or against which is not necessarily related to the strength of the argument in ecological or scientific terms?

Mr Stott: I do not have a concern about that and it is not really a responsibility of JNCC because it is the country agencies that have the responsibility to make the judgement based on the best science. Our responsibility is to provide guidance.

Q26 Dr Harris: Mr Eversham, do you have anything to say on that?

Mr Eversham: I think we can help you out with your idea about objectivity. We have not done a blind analysis, I must admit, but having surveyed something like 4000 wildlife sites across my three counties over the last decade and evaluated each of those according to quantitative criteria mostly based on plant species, so if it is a chalk grass, then how many of the characteristic chalk grass and flora are present, then almost all of the chalk grassland SSSIs came out in the top five per cent of those sites and most of the other wildlife sites that have since been designated as local wildlife sites come out somewhat lower down that hierarchy. In my own research I have done work on insect species in particular across a wide range of sites and I can generally characterise SSSIs as having a much higher proportion of nationally and internationally rare species than equivalent county wildlife sites or sites below that designation. There may be the odd anomaly but those may be sites which are actually designated for geological features rather than biological ones.

Q27 Mr Boswell: You talk in your evidence about the need for common standards and this includes monitoring, research and analysis. If we could deal first with the monitoring side, how much are you building that up as part of your capacity? How much more important is it than the guidelines initially? How much do you feel you have a handle on how the system is evolving?

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Mr Stott: We have worked with the country agencies to develop the guidance on site monitoring. JNCC does not undertake that monitoring; that monitoring is undertaken by the agencies. However, we do fund some national surveys which provide evidence which is relevant to the SSSIs.

Q28 Mr Boswell: That could be, for example, species specific surveys.

Mr Stott: Yes. For example, we provide funding to the British Trust for Ornithology who undertake surveys on breeding birds. We are not directly involved in that surveillance of the sites. In terms of our own work on surveillance it is an increasing priority for us and although we are not in a situation where we can put additional resources into surveillance it is an area which we are protecting in terms of its investment in relation to some of the other areas of work within JNCC.

Mr Eversham: I would like to make one comment on that which cuts across this rather. Almost by historical accident the designated sites in Britain happened just at the time that agriculture was changing radically so that many SSSIs represent small areas of low nutrient soils that predate agrochemicals, pesticides and fertilizers. That gives them some really special value that goes well beyond the species that happened to be living there at one time. On the monitoring side I have two concerns. Firstly, I would say that common standards monitoring is probably about as good as it can be given the resources that go into it but one visit or one assessment every six years tends only to pick up fairly substantial changes. As an organisation that manages 130 nature reserves about half of them SSSIs my trust has much more detailed monitoring on our sites and our aim is to pick up subtle changes before they become so serious that they cannot be corrected.

Q29 Mr Boswell: Can I just get you to confirm that because I thought that was a surprising piece of evidence? You are saying that in terms of monitoring the activity by the local voluntary trusts is probably more intensive than the coverage of national?

Mr Eversham: On the land that we manage at nature reserves it certainly is. I have a team of 400 trained volunteers who spend their time monitoring nature reserves. The purpose of that is to pick up subtle changes when perhaps our management is not delivering what it should do and in a changing climate that is increasingly the case. What worked last year may not work next year. With those changes taking place we want to spot the changes as soon as possible so we can do something about them. On our own sites common standards monitoring will pick up drastic changes by which time it is rather difficult to put them right so that if the resources are available then more detailed monitoring obviously allows you to get advance warning of sites which are just slightly tipping out of condition so that you can actually correct that earlier. To do that across the whole network would be very, very substantially more expensive.

Mr Clark: I am not very familiar with the common standards monitoring methodology issued by the JNCC but the questions I would be asking if I were reading it would be: are farmers and landowners asked to monitor the sites and, if they are or if they are not, are their observations on the site condition considered part of that monitoring? Monitoring is not an end in itself; I would like to feel that that monitoring actually does become part of the dialogue with farmers and landowners on a regular basis so that they can feel ownership and certainly feel, "I've done this management, this is the impact of it". Most importantly I think it is important to put people back into this. Natural England's evidence talks about management units with whom we can engage; in actual fact is people who engage, not management units. I would like to put people into the centre of this interaction.

Q30 Mr Boswell: Can I come back to Mr Stott on the question of research? There have been references by all witnesses to the importance of climate change. You do say in your evidence that you have a responsibility but a very limited resource for carrying out research. If you take the huge challenge of climate change would it be unfair to say that the danger might be that before the research is carried out, let alone issues in administrative decisions about designation, actually global warming will have taken place ahead of the game? Or can you lever in or influence the activities of other research bodies to do this in time?

Mr Stott: That is exactly the way the JNCC undertakes its work in relation to research. Yes, we do fund some research which is largely tied into our surveillance programmes which might be about developing more effective techniques or doing some appraisal and analysis of the trends from that work. More significantly in terms of addressing these areas of uncertainty, we have a function in terms of coordinating research amongst the country agencies and with other research funders. We provide the secretariat to a group called the Biodiversity Research Advisory Group which brings together most of the public funders of research, including the Natural Environment Research Council and some of the main research institutes to identify what are the research priorities and the most effective way of coordinating activity around research. We also do that in the global context as part of a sub-group of the Global Environment Change Committee. We work there with other government departments trying to identify what the knowledge gaps are and what the evidence investments should be. We are also a member of the Environmental Research Funders Forum which is a group of all the major environmental research funders and there we have had a role in trying to identify specifically what the biodiversity requirements are. We also work closely with other research funders on particular projects, whether it is NERC funded projects or Defra funded projects or projects funded by the European Commission. We are involved in trying to optimise those projects.

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Q31 Mr Boswell: So in terms of reporting lines if you have a subject you are worried about that has come to you through part of the monitoring process or representations made are you satisfied that you can make your voice heard and it will go up perhaps through the departmental chief scientist networks and we will get the chief scientists and eventually result in some change of gear in government or administration?

Mr Stott: We work very closely with Defra and the research funders. We recognise that there are different drivers for the research in the research councils as opposed to within Defra. We work with NERC to try to identify where the primary innovation and the scientific issues can be joined with the more practical aspects of conservation. As part of that there is now a major new initiative Living With Environmental Change which is a programme between government and the research councils which tries to identify more policy oriented practical applications of research.

Q32 Mr Boswell: I should perhaps have made clear but did not, some of the land I own was informally in an environmentally sensitive area although we have not proceeded to a higher level scheme; it is not actually SSSI. Can you give us an impression as to whether nationally there is a handle on all this in relation to the various schemes, the Defra environmental scheme, research council activities and possibly other grant trusts and of course the voluntary sector represented by Brian? Is somebody steering the whole process or at least taking an interest in the whole process and, given the exigencies of nature and time, at least hoping to get us through some of this with a degree of rationality and coherence?

Mr Stott: It is not really JNCC's position to comment on that because this is a responsibility of the devolved administration, Defra and Natural England. I believe there is a good coordination of that within the Biodiversity Programme within Defra. From the science perspective we are keen to work with the major funders of science so that there is a scientific element which addresses the effectiveness of all these different schemes and how they interact with one another.

Mr Eversham: I would like to comment on some of the quality science coming out of Natural England over the last four or five years. Some of the work there actually demonstrates what change has already taken place and is starting to give us some practical ideas as to respond to those changes. If I could move slightly sideways from this, one of my concerns is that the dynamic nature of plant and animal species moving through the landscape means that the interest features of sites are going to change subtly but significantly over the next ten, 20 or 30 years and although I would argue that in terms of soil and physical structure most SSSIs are going to remain of very high importance. We may need a rather different way of evaluating that importance in tracking its success.

Q33 Mr Boswell: By inference from that, there is a possible change in the portfolio of SSSIs as this situation develops.

Mr Eversham: I would guess that the changes may be relatively small. I am thinking of our own nature reserves, some of which we have got 50 or 60 years of good data for. The sites are still incredibly important but they may be important for a rather different set of butterflies or flowers from what they were 50 years ago. The nature of the site, in terms of soils and topography, means that they are going to remain very important places. A lot of SSSIs fall into that category. On the monitoring side, the one concern I will express is that there is strong emphasis focussing inwardly on each SSSI as if it lived in isolation when many of the problems and difficulties sites are suffering from are actually much wider than that. I think Defra's ecosystem approach has been really helpful here in putting sites in, for instance, a hydrological context. There is not much you can do to preserve an SSSI bog on a hillside if the rest of the hillside is out of condition. Taking Andrew's point about grazing, one of our own initiatives is actually working with graziers to put them in touch with owners of wildlife sites and SSSIs that need livestock. I think we are going to have to be a lot more creative in that sort of area, so keep the five acre really important orchid meadow in good condition when the owner of it may have no livestock.

Q34 Dr Iddon: I am getting the impression, rightly or wrongly, that the monitoring is not exactly well organised, but correct me if I am wrong. There are over 4000 SSSIs in England alone but only one per cent have been re-classified as a result of this careful monitoring of the dynamic situation that Brian Eversham explained a moment ago and only one site has been partially denotified. Can I press you a little harder about the monitoring situation? Is it well-organised? If it is not, what can be done to make it better?

Mr Stott: I cannot really comment on the implementation of monitoring within Natural England. Our responsibility has been to provide some guidance and common standards but the actual implementation of that—

Q35 Chairman: Can I just stop you there? I do not see how you can keep saying this. You are constantly making references that it is nothing to do with you but in reality unless in fact you have an interface with Natural England and one influences the other, then we are just working in separate silos, are we not?

Mr Stott: We work constantly with Natural England and all our advice is based on consultation with experts within Natural England and the other country agencies. The JNCC operates through those experts within the agencies. There is not gap there in developing the guidance. What I am saying is that JNCC does not have the responsibility for the implementation of that guidance.

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Q36 Dr Iddon: You must have a feel for the monitoring. This is a critical area for SSSI as a subject; what is your view of the way the monitoring is conducted? We accept that you do not do it, but you must have a view on it.

Mr Stott: The JNCC's particular interest in the monitoring is to be able to make a UK level assessment as is required, for example, under the Habitats Directive. For that we need to be able to collate information from each of the agencies to make that assessment. Our last assessment was completed in 2006; we were able to obtain reports on condition from 57 per cent of features. We felt that was not completely adequate in order to make that assessment. We recognise that the implementation of common standards monitoring is variable between the country agencies and does not necessarily provide the most comprehensive assessment of all features. Having said that, we are reviewing what the requirements are for UK level reporting—that is under review within the European Commission—and it may be it is not necessary to make an assessment within the Habitats Directive of every single site. It may be that we need to make an assessment of the favourable conservation status of the features as a whole across the UK which includes a lot of the sites, but it does not mean to say that we necessarily have to have an assessment of each individual site. We are in the process of reviewing what we require at the UK level in order to meet the obligations of the UK to report on the Habitats Directive.

Q37 Dr Iddon: Mr Clark, we have received some evidence to suggest that the turnover in staff within Natural England is a problem and that farmers have reported that they never see the same person twice. Have you got a view on monitoring? Is it haphazard? Is it working? Do farmers come into you about the monitoring of sites under their ownership?

Mr Clark: I would obviously reiterate the points I made previously, but I do not think we can take a view of whether the monitoring is well organised or not; that is a case for the argument between JNCC and the conservation agencies. We can only see it from our point of view. There is a turnover of staff in Natural England. We did a quick round-robin within our regions to find out what the feeling was about relationships and some inevitable result of a rationalisation of offices in the north-west region, for example, has meant that three of the six offices have been closed. The relationships that built up between farmers and landowners with those officers now is under threat. I think it is right to say that most owners and occupiers have a named contact. That is obviously a valuable starting point but we need to ensure, I would hope, that the relationship is something with a person over a long period of time so that that relationship would come up. Monitoring is part of that relationship. I would like to feel that the person who does the monitoring is also the person who helps the farmer get over the problems of actually managing that site. I do not think we can

talk about the actual adequacy of monitoring as a whole although I am a bit surprised at Andrew Stott's comments about what appears to be a relaxation of the monitoring regime within the European sites which are the most internationally important sites because of the problem of agencies' compliance with that regime. The point I would make is that monitoring has to be a fundamental part of the relationship between site owners and occupiers and the agency. In a sense we farm sites just in the same way as Brian Eversham's trust farms his sites; they are in constant contact with those sites and have views about its condition, how it is monitored, how it is managed and the problems they are having. You need to have a regular dialogue and regular contact between the agency and the owners.

Q38 Mr Cawsey: As well as this idea that people from Natural England may change from time to time, I speak to some local guys who have the view that it is not so much that people change but sometimes you have the same officer dealing with potential Habitat Directive legislation or SSSIs and in their part of the country, because of the people they have who are almost zealots—for want of a better phrase—it is therefore very difficult. However, they know they have colleagues in other parts of the country where legislation has not been so rigorously enforced. Do you pick up on any of that, that it is not just the legislation, it is the fact that it is not consistently applied across the whole country?

Mr Clark: What you have picked up here is the difference between people. The relationship between your agency contact, your Natural England contact, your CCW contact and the farmer is absolutely critical. In some circumstances that is a relationship that really works; in other situations there is tension. The fact is that each of the local people in Natural England will have a particular interest in the site. The sites have a range of different interests. Some of them are grassland sites, some of them have insects, some of them are bogs or wetland habitats. I suspect that some of the inconsistency is as a result of different interests amongst the advisors coming along to that site. Having said that, there are conservation objectives for most sites but I think the National Audit Office Report picked up that there was not complete coverage. There should be a standard basis for that relationship and I hope that that would be the basis for the relationship.

Q39 Mr Cawsey: Is there anywhere to go if you genuinely thought you were being over-zealously applied to by the agencies?

Mr Clark: They usually come to us. If there is a problem we soon hear about it.

Q40 Dr Iddon: Mr Eversham, would you like to comment on the monitoring situation?

Mr Eversham: I would like to. The 50-odd SSSIs that my trust manages, when they were first assessed about five or six years ago, there was something like a ten per cent discrepancy between what Natural

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England thought of the site and what our own staff thought of the site. We very quickly explained why we took one view. It was not all in one direction; there were certain sites that we thought were out of condition that Natural England were content with and vice versa. I think we are now within about two per cent of agreement on that. I have already explained that we do rather more detailed monitoring on our sites than is possible under common standard monitoring. With certain habitats, for example ancient woodland, the rate of change in those habitats is so slow that six yearly monitoring is more than sufficient; the sites are not likely to change very rapidly. With things like low- and grasslands where two or three years' lack of grazing or over-grazing can make quite an impact, then the six years timescale is towards the upper end of what would be acceptable I would suggest. Overall my sense is that common standard monitoring is working very well in terms of picking up the very crude changes on sites. The subtle difficulties—the last five or six years typify this—I think are in extreme weather events, so we have the warmest, wettest winter, the wettest spring, the heaviest rainfall in summer. Sites look very different after a very wet spring and summer from what they did after a year's drought and if you do not know the site intimately then distinguishing between those blips and long term trends is quite an ecological challenge. I think common standards monitoring actually pins us down so that we pick up most of the important long term trends without being too deflected by the blips. If you have a heathland that

is infested with heather beetle and there is a big population one year, that site will look out of condition when in fact it is part of a natural process and five years later it could be looking very good again.

Mr Clark: That is why regular monitoring is so important and regular contact is so important. Our advice to Natural England is that there should be annual site visits and meetings because it is these annual fluctuations which are critical to understand how the site is changing.

Q41 Chairman: Andrew, I think everybody agrees that the criteria for deciding on a SSSI need to be reviewed and you mentioned that point yourself. Do you have any plans to actually do that?

Mr Stott: This is an issue which the Joint Committee is considering next week. We are putting a paper to them on our priorities in terms of work on common standards and this is one of those issues amongst quite a large number of work on common standards which they will be considering next week.

Q42 Chairman: If you get agreement could you let the Committee know the outcome of that meeting?

Mr Stott: Yes.

Q43 Chairman: If there some common agreement it would be useful for us to put that in our report.

Mr Stott: The meeting is on Monday next week.

Chairman: On that note could I thank Andrew Stott, Andrew Clark and Brian Eversham very much indeed.

Witnesses: **Dr Helen Phillips** and **Ms Christina Cork**, Natural England, and **Dr Peter Costigan**, Natural Environment Science Division, Department for Environment, Food and Rural Affairs, gave evidence.

Chairman: We welcome our second panel of distinguished witnesses this morning. We have Dr Peter Costigan, a Defra scientist; Dr Helen Phillips, the Chief Executive of Natural England; and Christina Cork, Principal Specialist for Protected Areas. Graham Stringer is going to begin this session.

Q44 Graham Stringer: You listened to the previous evidence session; can you tell us whether you have plans to revisit the way SSSIs are designated and whether you are going to look at those SSSIs that were designated quite a long time ago to see if they should still be designated areas?

Dr Phillips: I will start at the point of the guidance and, as was mentioned earlier, the guidance was finally concluded in 1989. Our view is that it is largely fit for purpose. As Andrew mentioned earlier this morning, there are certain editorial changes required to reflect the fact that we have more devolution than at the time the guidance was written, but more substantively there are some gaps. The gaps tend to be around species and habitats, usually the lower plants and animals. A good example would be fungi so the guidance for fungi was only signed off three weeks ago. The other is

about thresholds and where a threshold kicks in. In terms of looking for sites that contribute to a representative sample of a particular type of habitat in the country, a couple of decades ago we might have felt that one particular level was appropriate whereas now because different environmental pressures, including climate change, a different threshold might be suitable. There is evidence that some updating of the guidance would be useful, but in the round it has served us pretty well. However, that is not to say that we are complacent about going forward and have actually set out a piece of work on a notification strategy for SSSIs. It strikes me that it might be helpful to put a bit of context around why we are only now looking at a notification strategy given that we have this responsibility across England. I think we need to reflect on the situation we inherited in Natural England coming up to three years ago now. We had little over half SSSIs in favourable or recovering condition and that figure now stands at over 88 per cent. We inherited a situation where a third of sites had no conservation objectives—or favourable condition tables as they are called—in order to make these monitoring assessments against. As of last March the situation is that every site, all of our 4116 sites have those

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conservation objectives. As you can imagine, that has been a pretty large piece of work. We inherited a situation where 24 per cent of sites were out of sync on their condition assessments. We did 3700 of those last year and are due to conclude 7500 of them this year which means that our condition assessment programme will be entirely up to speed by December 2010. So we have not been idle; we have been making sure that the statutory duties we have are being properly discharged, but we are conscious that there is this longer term piece of work to do and consequently have brought for discussion to our board a notification strategy. The purpose of that notification strategy—Christina will be able to tell you more—is basically three-fold. It is to ensure that we have proper representation of the diversity and range of habitats and species; it is to make sure that the most valuable of those habitats are protected and it is also to make sure that we are getting sites that are resilient in the face of climate change. Needless to say, that in itself is a big piece of work because it requires a pretty thorough analysis of some of the science that sits behind that, some of which is available but not analysed, some of which is not available and consequently that work is proceeding in tranches.

Q45 Graham Stringer: I will tell you my two main concerns. The first one is that it is a one-way ratchet and I think in the National Audit Office Report the Attenborough Gravel Pits were pointed out and they are probably quite a good example where a particular bird disappeared (I cannot remember which one) but you still want to keep that site designated. Out of the 4000 sites there must be a number of those where the original features have disappeared and yet it seems that the criteria change and the sites always remain as SSSIs with the problems that there might be for farmers. What plans do you have to deal with that criticism?

Dr Phillips: I will take that in two parts, we have done an initial assessment based on analysis of two regions and suggest that the potential scope for amendments or re-notifications is of the order of less than ten per cent. So this is not a whole scale exercise about needing to totally review it, but it does recognise that there may need to be some changes. Those changes will probably be principally about extending sites where we have worked out that the ecology of the site is dependent on some parameters or criteria or available land outside of it rather than a whole scale series of new sites. The previous National Audit Office in 1993 confirmed that they thought the series was more or less complete and that would continue to be our view.

Q46 Graham Stringer: My only real direct experience of the designation of SSSIs is as an ex-director of Manchester Airport when, during the works for the second runway, there was an attempt to designate them as a SSSI. The airport came to see me as a Member of Parliament and when we looked at the criteria they did not seem to be very scientific.

Natural England were saying that this is the best example of mere moss and there was a high density of great crested newts, neither of which was the case. It has made me suspicious that not only is the ratchet one way on previous sites but that sites are designated sometimes for not very objective purposes. I would be grateful if your comments both about that specific case and how you approach things now.

Dr Phillips: I will need to ask Christina in a moment to comment on the specifics, if I may. Coming to the wider point about the suspicion, I think to be frank it would be pretty difficult for lobbying to get a site of special scientific interest through. I think perhaps what has happened in the past is that local interest or lobbying has brought a particular area to attention so there then has had to kick in perhaps earlier than would have kicked in that scientific analysis of whether or not the site is of special scientific interest. The process by which the notification occurs is extraordinarily rigorous. You have the officers on the ground who are experts in this area making judgments. Those judgments are then publicly commented on for a period of four months; anybody who has views on either side are in on-going discussions; there is every effort made to accommodate those so that we do not find ourselves making a notification in the face of objections. If we do find ourselves making notification in the face of objection it goes to a full and open meeting of our board. That meeting is held in public; the objectors or their legal representatives come and have the opportunity to state their case. I would not say that we have had judicial reviews more times than we have hot dinners, but we have certainly had our fair share of judicial reviews, all of which have shown that the process is robust.

Ms Cork: I am afraid I do not personally know the specifics of the case in Manchester but we could provide a note.

Q47 Graham Stringer: As I understand it, it is the only case where notification has been withdrawn and the scientific basis and judgments were pretty well demolished. That is my reading of the evidence. My suspicion was that it was both local lobbying groups who did not like the second runway, but secondly it was the direct impact of the 1992 Habitat Directive that English Nature and Natural England were expected to achieve a number of special areas of conservation via SSSIs. Is that a pressure you feel, to fit a particular number of special areas of conservation via SSSIs because of the Habitat Directive?

Dr Phillips: It actually works the other way round, to be honest with you. In reality the situation is that we put forward proposals to the secretary of state for designation of special areas of conservation under the European legislation and that regime is quite separate from the SSSI regime where the notification process was actually within Natural England's gift, albeit what you have observed is that most special areas of conservation tend also to be Sites of Special Scientific Interest. The actual designation and notification processes respectively are separate.

Q48 Graham Stringer: Are you under pressure from the government?

Dr Phillips: To get more? No.

Q49 Graham Stringer: So there is no history of saying that the European directive wants so much area or so many designations and we do not feel you have done enough in this area.

Dr Phillips: No, it does not feel like that at all. If we think, for example, about the legislation that is going through on the Marine Bill where the situation in the marine environment is proposed to be different in terrestrial environment, if you think about the SSSI regime what we have got are very useful thresholds and standards set out in the notification guidance. The proposal with regard to the marine environment is that whilst measures can be put in place to make sure we an ecologically coherent network that guidance would stop short of setting out thresholds or the percentage of area that should be designated for particular features. Whilst those two regimes could potentially be different, the fact that we have that regime in the terrestrial environment, the European legislation and the SSSI legislation it does not feel like a target based system.

Q50 Graham Stringer: You said your target was 88 per cent of areas that are either in a recovering position or a satisfactory position. I know those are not technically the right words, but you know what I mean. Out of that percentage of 88 or 90 per cent you are still left with only 45 per cent in the top category and the figure of 90 per cent is reached because of the inferior category of improving. Do you think that that is a satisfactory criterion or should it not be separated out so that you have to hit a higher target for SSSIs in a favourable condition?

Dr Phillips: To recall the figures, as of the end of March this year the number of sites in favourable or recovering condition was 88.4 per cent; the target for the end of this year was 93 per cent and the target for 2010 is 95 per cent. As you quite rightly say, the target in the favourable category—which is the top category—is 45 per cent which is considerably lower than that combined figure. I think it is extraordinarily important that we maintain the favourable recovering category because the only difference between recovered—top notch condition and favourable recovering—is the length of time we anticipate it will take for the remedies we have put in place to deliver. We have already had an example this morning about woodland. We set the conservation objectives, we have a requirement for a particular type of management on that site and with all the resources and the best will in the world nature takes some time to recover. I think it is important that we recognise that we are actually measuring nothing more than a time lag rather than some altogether more fundamental concern about the management regime on that site.

Q51 Chairman: Dr Costigan, as far as Defra is concerned, are you happy with the current guidelines for SSSIs or do you feel that they are in need of urgent review?

Dr Costigan: We rely on the statutory advice from Natural England and from JNCC in this regard and we are very happy with the advice that they provide.

Q52 Chairman: It does seem that everybody passes the buck to somebody else. Surely somebody at some point can say, “No, we do not think the guidance is good enough, it ought to be reviewed and we will be talking to people”.

Dr Costigan: There is some need for looking at some aspects of the guidance.

Q53 Chairman: Does Defra think that?

Dr Costigan: We take the advice from our statutory—

Q54 Chairman: This is like from *Yes Minister*.

Dr Costigan: We have high quality scientists to provide that advice to government. We do not try to second guess that. In fact, from what we can see from the evidence that comes forward, the assessment seems perfectly appropriate.

Q55 Dr Harris: I think that is the right approach and your answer to the Chairman was reasonable, but as I understand it, it is the JNCC’s advice you are talking about so it is not really a surprise to say they are happy with it and also, Dr Phillips, you said that you thought generally speaking that the guidance that underpins your work was robust and your work was robust and that is also not a surprise. I actually think I am doing a good job but I am not necessarily the best person to be the judge of that. I am just wondering why no-one has commissioned an objective, independent evaluation, not a hugely expensive piece of work but someone externally—maybe from another country who has a similar approach—to say, “Let’s look at this afresh; it is fit for purpose?” Why has that not been done given these guidelines are pretty old and there have been some pretty significant changes to global ecology since then?

Dr Phillips: I watched the earlier equivocation and thought I had attempted to be pretty clear and laid out four categories of criteria in respect of which the guidance could do with being updated. The first was the administrative point about reflecting the fact that the administrative arrangements have changed and devolution has kicked in. The second was to recognise the gap where there were species or habitat areas missing and the example I gave was fungi. The other example I gave you was about site selection in the face of the pressures of climate change which had not been explicitly factored in post-1989. The fourth example I gave you was the threshold criteria where those thresholds were for representativeness. That was endeavouring to be helpful about some specifics about where we feel the guidance could do with being updated.

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Q56 Dr Harris: It has not been updated.

Dr Phillips: No, it has not been updated in regard to those four categories; we think that could do with being done. We are pleased to report that we got fungi three weeks ago and also pleased that the JNCC will be considering a wider requirement to review the guidance on Monday.

Q57 Dr Harris: Very few people can boast of getting fungi three weeks ago!

Dr Phillips: There was another point you made which was, are we all happy because we think we are doing a good job. I personally think it would be quite difficult to commission an independent, international review because, to be fair to JNCC, a lot of what they are doing is coordinating and facilitating the efforts of very august scientists in their field. There are not large numbers of people who understand the ecology of Britain better than the folk who are employed either by us, Scottish National Heritage and Countryside Council for Wales.

Q58 Dr Harris: So all the people who might independently evaluate it have been caught in the process. That is unfortunate.

Dr Phillips: It does rather raise the question of quality assurance.

Q59 Dr Harris: You are quite happy that your systems are robust and certainly in terms of administration and judicial review. I want to ask you a bit about transparency. Do people write in to you giving a view on whether a site should or should not be SSSI? Do you always publish those letters and the responses?

Dr Phillips: Absolutely.

Q60 Dr Harris: Even if they say “private”.

Dr Phillips: If they say “private” my recollection is that we have to go back to them and say why it is that we would like to publish them and ask them if they would be happy for it to be published. I cannot ever remember a situation where we had any difficulty getting that agreement.

Q61 Dr Harris: If Prince Charles has ever written—I understand that he does write to a number of organisations about things as a landowner because, one might say, he has an interest—that would be published. So the fact that there is no published letter from him suggests he has never written to you or your chairman.

Dr Phillips: He writes to us on a number of issues. With regard to SSSIs the notification process is in the public domain. We endeavour to make sure that all of that information is in the public domain. I cannot remember any situation at all in my time where the public and the objectors have not had that entire bundle of information.

Q62 Dr Harris: So there is no private correspondence on anything.

Dr Phillips: Absolutely not.

Q63 Dr Harris: That is refreshing. The RSPB, as you know, has been critical of the failure to undertake a systematic review of the SSSI series. Do you think that is fair criticism? It comes back to the same point really.

Dr Phillips: I think it comes back to the same point about the guidance for notification. I think they are saying probably much the same as we are, that there are some areas in which this guidance could be updated.

Q64 Dr Harris: I think they were talking about a systematic review of existing sites. In their evidence they state that only 23 sites were re-classified and site partially denotified. That is quite a low number and they say that a systematic review would have dealt with this earlier and quicker. I do not want you to repeat what you have said, but they are a key stakeholder.

Dr Phillips: Absolutely, and I think at this point it might be helpful if we told you a little bit more about our SSSI notification strategy going forward because that will address that point.

Ms Cork: Last year we looked at what was Natural England’s strategy for notifications going forward and on what basis would we notify sites going forward. That actually looked at addressing the purpose of the SSSI network as a whole. There is no purpose in statute for SSSIs but it is enshrined within government policy, so there is Defra guidance on the purpose of SSSIs. As has been explained already this morning, it is around ensuring a diversity of sites and that the sites contain the most important sites. There is also reference around for now and for future generations. It is important that the SSSI series is actually sustainable and that the series itself is sustainable in the face of climate change. Building on that we are putting in place a process which will run in four stages. You can see the complementarity here with the work that has been mentioned about the guidance reviews. The first stage review is: what do we currently have SSSIs for and how are they valued? Have we got the right things in the series at the moment or are there any gaps? (I will not mention fungi again!) Then, what do we currently have for those habitats and those species within a series? We have done an initial review looking at what percentages on the basis of what we know of particular types of habitats and species we have within the series and outside the series. Before we come to a judgment on whether that feels about right or do we need to look at a higher proportion of some types of habitats due to maybe the eco-system services they provide to us, so whereas in the past we might have notified more on the basis of the intrinsic value of that site, do we want to have more in the series of certain habitats that provide us with eco-system functioning? We then need to form a view on the adequacy of the current series against those standards. Running in parallel to that we would also like to put in place a process that runs in with the condition assessment—the monitoring process—whereby we set up certain question sites that we

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currently have and at a very crude level ask if there is new interest there that it is not notified for? Has it lost its notification? Has it lost its interest completely? Could it do with new areas including within the boundary which will help it be resilient in the face of climate change? Is it functioning at the landscape scale? So are there other sites within the local area on which that SSSI relies that we need to look at whether those areas need to be included within the designation itself or that we could target that through maybe our other functions, so the targeting of agro-environment agreements to actually better manage some areas. That is hugely resource intensive and it is a long term piece of work, but that is what we are currently looking at.

Q65 Dr Harris: There are a number of housing developments which are really needed in some areas which are held up or prevented because there is a water vole or a greater crested newt—it is usually the greater crested variety—and I am just wondering whether, if there were enough SSSIs with plenty of these beasts in them, then social housing development might not be held up or indeed necessary road infrastructure. Is that a relevant factor for you? It is always those species, it seems to me, that actually prevent people being housed or villages being by-passed. Is that part of your criteria, storing them up in certain places?

Dr Phillips: I think it is really important that we think about the difference between the SSSI series and the European protected species requirements. It is laid out pretty clearly in law what it is we need to do in terms of European protected species. Where we have difficulty with developers, the difficulties with developers are hugely eased if we have early dialogue. It is difficult to think of examples where we have that conversation early on with our licensing folk about what it is that can be done to phase the development in such a way that we can find ways around for those species to be moved or for the breeding season or whatever to have passed. I think it is fair to say that it is sometimes a blocked development, it is virtually always seen as a blocked development but the art of the possible in terms of our licensing regime increases hugely if we have that discussion at the beginning of the developers' plans rather than two minutes before they want to do the work.

Q66 Mr Cawsey: What do you do as an organisation in terms of priorities? I have an example, not dissimilar to what Evan was talking about, where there was potential development in the area and it was immediately discovered that there were great crested newts and water voles and both had to be dealt with. The whole development was put in jeopardy mainly because they had to be moved elsewhere and they could only be collected in a relatively short window. In fact it was missed which led to a year's delay to the cost of the developers. There was not for me a great issue about ensuring that that site was properly managed and looked after. What worried me was that this was a huge development that was very important to the area and

in my own conversations, let alone other people's chats with your organisation, the view was very much, "Well, I've got this great big pile to deal with, why is yours any more important than anybody else's? We will get to it in the end." Getting to it in the end would have been too late. It was only the direct intervention of the secretary of state to Defra which led it to be yanked out and put to the top. Everything that had to be done was done, but what concerned me is that there had been no ability of the organisation to think that this actually needed to be dealt with more quickly than some of the others.

Dr Phillips: I think that is a very important point and there are several things we have already done to make sure that people are more sensitive to customers' requirements, whether they are farmers and land managers or developers. Some of that has had implications. We have already about this morning that there is a perception that staff have changed on moved on and to a certain degree that would be accurate. By the end of March 2010 we will have closed half our offices in Natural England and in so doing we will have reduced our carbon footprint by 50 per cent. We not believe in having people in offices; we believe in having people in the field, talking to farmers and land managers and we think that is where the action is at. It also allows us to deliver our efficiency case for Natural England over target and a year ahead of schedule. We are due to deliver efficiencies of £16.5 million by 2010; we delivered £23 million by the end of last year. That has necessarily meant that we cannot afford any more than two or three people to do one person's job, so where a farmer might have been used to talking to one man about SSSI and another lady about an agro environment agreement, we say that these people have principally the same set of skills and they need to work efficiently when having that discussion not only so that we can do things more cost-effectively but with the fullness of time those relationships do re-cement with one conversation with somebody who really understand their business, whether that is a farm enterprise or whether it is a housing developer, but inevitably these things do take a little while to take hold.

Q67 Mr Cawsey: Will you be looking at priorities as opposed to straightforward chronological issues??

Dr Phillips: Precisely.

Q68 Mr Boswell: My questions are about management and they are directed to you and also to Defra. First of all, at a strategic level, given that we have SSSIs and we have nature conservation sites run by local trusts, Defra and all the other publicly supported conservation efforts, are you satisfied that the structure as a whole is being managed properly or that the machinery exists for having the kinds of conversation you have just been referring to, Dr Phillips?

Dr Phillips: That is a very big question. In terms of practical, on the ground action interface with the land managers in their various guises, I think it is pretty good. In terms of the wider issues we were exploring this morning about reporting, monitoring

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and evidence base, I think it is getting better but I think there is clearly room for us to do more. Let me give you a couple of short examples. We are obviously keen to reduce the cost of the monitoring programme. I am not madly keen to reduce the cost of the monitoring programme while I am still 23 per cent out of sync on my programme. We need to get to December 2010; we are on target to date and frankly we would like to put this on a different footing going forward. It is every six years; is there an argument in favour of it being more targeted, more proportionate, more risk based and depending what feature you are looking at? Is there also an argument in terms of stratified sampling? If you compare and contrast the best and worst of what is happening in the different country agencies I think you will come up with a different proposition. As soon as we are up to date that is what we will do. The next question you have to ask yourself is about the shed load of other monitoring that is going on. Even within our own organisations there is monitoring going on around SSSIs and there is monitoring going on, we do it as part of a wider Defra effort around environmental stewardship. That seems a pretty obvious package of monitoring to bring together so in much the same way as we brought our advice and our agreement service to one person who has a point of contact with farmers, despite what has been said earlier we must remember the National Audit Office survey that says that 72 per cent of farmers were content and happy that they had a single point of contact and that that is working well. There is the same opportunity in the way we have done that to extend that way of working to our evidence base not only for us as an organisation but also other organisations.

Q69 Mr Boswell: Dr Costigan, what is your take on it?

Dr Costigan: I think it is important to bear in mind the integration of these measures. Environmental stewardship payments are often made to landowners who own or manage SSSIs but they are also made to other sites outside SSSIs. They are separate schemes in the sense of the way they are organised but they are very integrated. I do not think improving the status of SSSIs would be achieved without the existence of the environmental stewardship support to the landowners to assist that process. That is one important aspect of it. On the monitoring side, it is worth bearing in mind that there is now also an initiative that is led by the Environmental Research Funders Forum which Andrew Stott mentioned earlier called the Environmental Observation Framework which is bringing together all the organisations who do environmental monitoring in the UK to develop a more coherent approach to all of the different monitoring that actually goes on. Helen has already mentioned some of the aspects of monitoring that are conducted by Natural England, but of course there are also other monitoring schemes for all sorts of different aspects of the environment that it would be useful to bring together into a more coherent form.

Q70 Mr Boswell: Is there scope for do-it-yourself monitoring by the landowner properly trained doing it, having a greater ownership of the activity, possibly getting some minor remuneration for his pains in doing it? Can you see this as being part of your professional effort?

Dr Costigan: It is perhaps worth mentioning in that context an initiative called the Open Air Laboratory that is being led by the Natural History Museum and other organisations which is trying to encourage a much wider range of members of the public—landowners or not—to engage in measuring the environment in which we all live.

Dr Phillips: A lot of farmer and land management monitoring already takes place. When an officer goes onto a site to form a judgment about the condition of the site the first thing they do is have that conversation about how things have been, was it a typical year, what is the system like? I think we need to be careful about how far we can take that. I do not want to find me or somebody else sitting in front of a similar committee with slightly different line of questioning which is not of course you are happy with what you are doing yourself and of course farmers who you are paying great big shed loads to to say it is all terrific. I think it is about how it we get that balance and that relationship.

Q71 Mr Boswell: Just a quick closure on dispute resolution, are you satisfied that once designation has taken place and an agreement has been concluded, this properly balances the needs of landowners, businesses and the conservation interest and, if there is a dispute subsequently because circumstances change, that can be judiciously and properly dealt with?

Dr Phillips: I think in the great majority of cases that is precisely how it works and we need to look at some of the facts. Naturally people have anxieties if there is going to be some new designation that applies to the land but at the time of that notification we explain what it is the site has been notified for, we also make sure it is very clear what the operations that require consent will be. People primarily have an anxiety about their ability from the business will be fettered because of the consent that is required to carry out those operations. In 92 per cent of cases once that application for consent is made it is granted and it is granted in a timely fashion.

Q72 Mr Boswell: And properly?

Dr Phillips: And properly. There is very little problem about that. The third anxiety is usually about any additional cost that they may have to bear and the fact that our incentive schemes swing in behind this in a timely fashion. The only residual anxiety is that when there are capital costs that expenditure is not always met in full, but then again that is going into the value of the land and the property and it would not be proper that it was coming in in its entirety from the public purse. Our experience, despite there always being one or two examples where issues escalate, is a happy one across the board.

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Q73 Dr Iddon: Going back to the voluntary activity, the National Audit Office Report of course recommends that you encourage greater voluntary activity in order to free up your conservation advisors to do the important work that they do do. Are you taking that advice forward from that NAO Report?

Dr Phillips: We are indeed. I am really pleased to report that in the last 12 months the number of volunteers we have managed to attract to the cause has gone up by five per cent. That is pretty modest but it is going in the right direction.

Q74 Dr Iddon: What is that in numbers?

Dr Phillips: It is not a huge number; it is a pretty modest number. The bigger challenge for us though is striking the balance between giving volunteers the breadth of experience that they like to have to keep them interested and being able to target it more specifically at the delivery of some of our harder objectives. That is a piece of work we are leading not only for Natural England but across the sector to see how perhaps, if we were to lend our volunteers to other parts of the environmental sector and vice versa we would be able to get a greater alignment between volunteer hours and things we actually and practically need doing without detracting from the experience for them. That is going to take a wider collaboration but it is work we have taken forward on the back of the NAO recommendations.

Q75 Dr Iddon: I am a scientist and I know how important it is to record in your book every little observation, however trivial it might seem at the time, because that constitutes an important evidence base for future activity. I notice that the National Audit Office was critical of the lack of record keeping. What are you doing about that criticism?

Dr Phillips: That National Audit Office recommendation actually more or less conflated two issues, one was about record keeping in our notes and the other was about our IT system called NSIS. We have many more paper notes than we have records on NSIS and there are two examples of that. The National Audit Office Report, from

recollection, said that 12 out of a sample of 28 sites had been monitored at the wrong time of year. The date which our computer has on it is the date at which the overall assessment was made which might be when somebody is having a rainy day in the office as opposed to the dates on which they went previously to do the site to do the assessment. Once we did the paper check on that we were absolutely satisfied that those visits had been made at the right time, albeit it would take a huge amendment to the IT system to put in the necessary columns to reflect those dates on that. I think the bulk of that recommendation comes down to how much more investment we make in our IT system in order that more information is available. The other example of that was Andrew Stott's example where he said that 57 per cent of the features had been reported on. He is quite accurate in saying that 57 per cent at a UK level of SSSI features have been reported on, but that is not the number that have been monitored. In the same way that we will have our condition assessment cycle entirely up to speed by December 2010, we will have all the features recorded on this NSIS system by the end of this financial year.

Chairman: Graham, have you any last points you would like to make because this was very much your idea?

Q76 Graham Stringer: I have one last quick question. Your Scottish equivalent has estimated that there is no impact of SSSIs on land values partly because they are in remote areas of Scotland. Have you carried out a similar exercise or have you any intention of carrying out a similar exercise?

Dr Phillips: When we quote that figure, which we do, we are relying on their assessment.

Q77 Graham Stringer: It is probably not an appropriate comparator.

Dr Phillips: We have not done that work; we do not currently have plans to do that work.

Chairman: On that note, thank you very much indeed. Could I thank Dr Helen Phillips, the Chief Executive of Natural England, Dr Peter Costigan from Defra and Christina Cork. Thank you very much indeed for your evidence.

Written evidence

Memorandum 1

Submission from Natural England

1. INTRODUCTION

1.1 Natural England is a statutory adviser created in 2006 under the Natural Environment and Rural Communities Act by bringing together English Nature and parts of the Rural Development Service and the Countryside Agency. Natural England has been charged with the responsibility to ensure that England's unique natural environment, including its flora, fauna, land and seascapes, geology and soils are protected and improved.

1.2 In order to undertake this role we recognise the value of a robust evidence base across our business, to ensure effective operational delivery and to inform our own policies and policy positions. A range of our policy positions and the role of evidence, are available.¹ The most recent is our draft Soils Policy, discussed by Natural England's Board on 20 May 2009.² Please see Annex 1.³

1.3 Whilst our evidence base is not just concerned with SSSIs, they offer a good illustration of evidence based policy making, and hence our submission to this select committee.

2. NATURAL ENGLAND'S EVIDENCE BASE—COVERAGE AND CONTENT

2.1 Natural England uses evidence in support of its work at a wide range of levels of detail and a full spectrum of scales. This ranges from understanding the specific ecological and management requirements of individual species or the distribution of particular geological features through to understanding the motivation behind people's engagement with the natural environment to the understanding of ecological processes and how the environment contributes to economic, social and cultural benefits.

2.2 The distinction should be made between evidence requirements to support our work at an operational, tactical and strategic level.

- Operational evidence—requirements concern current delivery mechanisms and targets and inform delivery.
- Tactical evidence—explores the relationships between factors so that future delivery mechanisms can be designed and advocated.
- Strategic evidence—seeks to understand underlying processes so that, long term integrated solutions can be developed.

2.3 We use evidence to prioritise and target activity and to enable us to integrate environmental outcomes to best effect. An example of this is our recent change from a reactive scoring approach to the delivery of Environmental Stewardship, to a proactive targeted approach based on the integration of a range of evidence including, SSSI, wider biodiversity, resource protection, landscape and access data.

2.4 The use of "SSSI remedies data" further explained at paragraph 4.1 illustrates the links between operational, tactical and strategic evidence, that is required to support the long term conservation of SSSIs and policy changes. Here we work closely with other agencies with similar responsibilities (such as Environment Agency (EA)) in gathering evidence in such areas. In other areas, such as investigating underlying ecological processes and management responses, we work closely with a wide range of organisations, including academic and research institutions, research councils, other funding bodies and policy and decision makers.

2.5 An effective monitoring programme is essential for Natural England in order to understand the effectiveness of different mechanisms and improve the quality of environmental outcomes. Natural England has undertaken a thorough review of the coverage and adequacy of inherited monitoring activity and is currently establishing a programme of work to rationalise and streamline our approaches.

2.6 The key driving principle of a future monitoring programme is to remove duplication of effort in field capture of data. This will enable staff to collect multipurpose data from a single field visit and this data will provide evidence to support many work areas. Wherever possible information collected by other environmental agencies and volunteers will be used to support monitoring evidence, thereby further increasing the value of public funds in assessing environmental outcomes.

2.7 In 2007–08 Natural England allocated circa 12% of programme expenditure to Science and Evidence development and collation. This figure does not include staff time involved with the collation of evidence and research programmes.

¹ www.naturalengland.org.uk/ourwork/policy/default.aspx

² www.naturalengland.org.uk/Images/NEBPU1607_tcm6-11170.pdf

³ Not printed.

3. SITES OF SPECIAL SCIENTIFIC INTEREST—SCIENCE AND EVIDENCE BASE

3.1 *Introduction to SSSIs*

3.1.1 SSSIs are England’s very best wildlife and geological sites and include some of our most spectacular and beautiful habitats. They are essential to preserve our remaining natural heritage that is under pressure from development, pollution, climate change and inappropriate land management practices. SSSI status is important since it provides a means of supporting habitats, plants and animals that find it more difficult to survive in the wider countryside, and in turn it protects a wide range of ecosystem services that will be crucial in adapting to and mitigating the effects of climate changes.

3.1.2 Natural England has a statutory duty to notify land as SSSI which in its opinion is of “special interest” by reason of its wildlife (habitats and species) or geology. However, the natural environment is dynamic, the nature of threats to it may change over time and our understanding of habitats, species and geology is constantly developing. Mindful of these facts, Parliament has also given Natural England powers to amend existing SSSI notifications.

3.1.3 There are currently 4,115 SSSIs in England covering just over one million hectares, with around 26,000 owners and occupiers.

3.2 *Evidence underpinning selection of SSSIs*

3.2.1 SSSIs have been selected over a period of almost 60 years, and the approach has evolved and developed during that time. Prospective sites are assessed against guidelines⁴ maintained by the Joint Nature Conservation Committee (JNCC). The evidence base for determining the special interest in specific cases varies widely depending on the nature of the site. For geological interests, the evidence is in the form of the Geological Conservation Review (GCR),⁵ maintained and published by the JNCC. For biological interests, evidence is derived from a wide range of sources including extensive local information derived from volunteer biological recorders and augmented by national surveillance schemes, such as the Wetland Bird Survey (WeBS)⁶ and vegetation surveys undertaken by statutory and non-governmental organisations.

3.2.2 Natural England strategy for SSSI notification, is to ensure that the SSSI series:

- comprises the full diversity and range of wildlife and geology throughout England;
- contains our most valuable nature conservation and earth heritage sites; and
- is comprised of individual SSSIs that (as far as possible) are dynamic and resilient to the predicted effects of climate change.

3.2.3 The evidence underpinning SSSI selection informs this approach in three respects:

- the value and importance society attaches to special features⁷ and the proportion that ought to be afforded protection in SSSIs. Relevant evidence would include threat status and trends (such as published Red Lists), ecosystem services provided, and international obligations. For example, the UK Biodiversity Action Plan (BAP), highlights where site protection is a required delivery mechanism to achieve the conservation of habitats and species, alongside wider countryside measures;
 - the geographical extent, population size, distribution and range of variation displayed by a habitat or species. The evidence for this comes from sources including Natural England’s inventories of priority habitats under the UKBAP, national species monitoring programmes (such as the Wetland Bird Survey) and datasets held within the National Biodiversity Network database. This information sets the context within which to assess individual cases; and
 - the evidence for the presence and importance of the features of an individual site.
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⁴ In 1989 the then Nature Conservancy Council published Guidelines for selection of biological SSSIs. Since 1991, the JNCC has been the focus for the production and revision of the guidelines: <http://www.jncc.gov.uk/page-2303>. In March 1993, the JNCC approved the Guidelines for Selection of Earth Science SSSIs, which summarised the approach adopted in the Geological Conservation Review (GCR): www.jncc.gov.uk/page-2317

⁵ The GCR aims to identify those sites of national and international importance needed to show all the key scientific elements of the Earth heritage of Britain. The results of the GCR programme are being published in a series of 45 volumes, the GCR Series. The sites selected form the basis of statutory geological and geomorphological site conservation in Britain: www.jncc.gov.uk/page-2947

⁶ WeBS is the scheme that monitors non-breeding waterbirds in the UK, which aims to provide the principal data for the conservation of their populations and wetland habitats. WeBS is a partnership between the British Trust for Ornithology, the Royal Society for the Protection of Birds and the JNCC (the latter on behalf of Natural England, Scottish Natural Heritage, the Countryside Council for Wales and the Environment and Heritage Service for Northern Ireland) in association with the Wildfowl & Wetlands Trust: www.bto.org/webs/about/index.htm

⁷ A habitat, habitat matrix, geomorphological or geological exposure, a species or species community or assemblage by reason of which a site is considered to be of special scientific interest

3.3 Notification process and scrutiny of evidence

3.3.1 Proposals to notify SSSIs are considered by Natural England's Executive Board who examine all of the evidence before determining special scientific interest. The SSSI is then formally notified to the Secretary of State, local planning authorities, owners and occupiers and other statutory authorities. Natural England also informs a wide range of interested parties and places notices in the local press. At least three months are allowed for making representations and the supporting evidence for the notification is available on request. The notification must be confirmed within nine months or it ceases to have effect. When there are outstanding objections, the Board of Natural England meets in public to decide whether or not to confirm the notification. It scrutinises all available evidence, including any raised in objections and may receive representations in person from objectors.

3.4 SSSI monitoring

3.4.1 Whether the notification of an area as SSSI is effectively providing for the conservation of its special features is monitored using a cost effective and consistent methodology, designed to determine current condition. The 4,115 SSSIs in England are split into 21,924 units—based on management, habitat, tenure etc—that reflect management units with whom we can engage. Each unit is monitored at least once every six years under Common Standards Methodology (CSM). Such assessments may conclude that units are either,

- Favourable (maintained or recovered);
- Unfavourable recovering;
- Unfavourable no change;
- Unfavourable declining;
- Destroyed/part destroyed.

See annex 2 for description of condition.

An assessment of unfavourable recovering condition is made once all the necessary actions to tackle the reasons for unfavourable condition have been put in place. Such assessments are commonly referred to as “Tew Rule” assessments, and do not require a full CSM assessment to be undertaken.

3.4.2 Common Standards Monitoring (CSM) methodology was developed by the Joint Nature Conservation Committee (JNCC) in consultation with Natural England (and its predecessor body English Nature), Scottish Natural Heritage, Countryside Council for Wales and Northern Ireland Environment Agency between 1998 and 2008 and is in use by all four country Agencies.⁸

3.4.3 The CSM guidance is publically available on the JNCC website.⁹ The CSM guidance is applied to individual SSSIs through site specific Favourable Condition Tables (Conservation objectives). These are drawn up for each SSSI, and define the special features for which it is notified, and the target condition that has to be met for the feature to be in favourable condition. Each notified feature has one or more targets; for example, if the feature is a habitat the targets will include a definition of required habitat extent, habitat structure, and for species, the presence/absence or numbers and associated habitat requirements (see Annex 3 for illustrative examples).

3.4.4 Natural England reports the overall condition of each unit taking into account the assessments for all features in that unit.

3.5 Evidence contributing to condition judgement

3.5.1 CSM uses two main types of data to monitor condition of SSSIs—generalist and specialist data. Generalist data is largely collected by Natural England staff and is the result of site visits. On site, surveys follow the methodology outlined in CSM using the Favourable Condition Tables tailored for each SSSI. The approach will differ according to the habitat or species being assessed, but include use of quadrats, predefined or representative sample points across a feature and presence/absence of indicator species. The position of sample points are usually recorded on maps, or for large upland sites GPS is often used for increased accuracy. Extent (area of feature) attribute assessments are often made with the help of aerial photos which enable change over time to be seen, for example scrub encroachment. Natural England Advisers will have detailed information available on each site from other sources and have often visited the site at different times of year and will use this knowledge whilst making an assessment.¹⁰ A SSSI unit assessment may involve several field visits if there are several special features on a unit. It is Natural

⁸ Natural England, through Section 3(4) of the Natural Environment and Rural Communities Act 2006 must “In discharging its functions in monitoring nature conservation, carrying out research or analysing the resultant information, Natural England must have regard to common standards established under section 34(2)(c).” It is a function of JNCC under Section 34 (2)(c) of this Act for “establishing common standards throughout the United Kingdom for the monitoring of nature conservation and for research into nature conservation and the analysis of the resulting information”. All CSM guidance is agreed formally by the Chief Scientists of the country agencies.

⁹ www.jncc.gov.uk/page-2199

¹⁰ Recommended field visit dates are set out in CSM and provide a guide to the optimum times to assess a feature eg when the majority of indicator species are visible for a habitat, eg before a hay cut if a grassland is managed by mowing, when the species is present etc. This allows all the attributes set out in the FCT to be assessed easily, if a meadow is visited after a hay cut it would be extremely difficult to assess the species composition and presence of positive and negative indicator species.

England's preference to have staff doing a condition assessment wherever possible and practical. This fosters contact with the land managers and allows a member of staff to both use and increase their knowledge and understanding of the particular SSSI.

3.5.2 Specialist data is collated either under contract, or accessed under agreement from partner organisations. Such examples include contracts for monitoring bat roosts in caves, access under agreement to Environment Agency water quality data, and data collected through wider surveillance by conservation volunteers.

3.5.3 The condition of all SSSI units is published on our website.¹¹ All data supporting a judgement of condition is publically available on request.

4. USE OF EVIDENCE BASE IN SSSI MANAGEMENT AND WIDER POLICY INFLUENCING

4.1 SSSI PSA Target

4.1.1 The Government has a PSA target of 95% of SSSIs in a favourable or recovering condition by December 2010. Sites in target condition are those reported as being in a favourable or unfavourable recovering condition. When a unit is in an unfavourable condition "Adverse Condition Reasons" are assigned. These are identified through the condition assessment process, and in some instances through additional evidence collation (e.g for direct and diffuse sources of freshwater pollution). See Annex 4 for top 10 reasons for adverse condition of SSSIs. Natural England has been coordinating a programme of work, with partners, called "Remedies." For every adverse condition reason "Remedies" identifies the organisation responsible for "fixing" the problem together with the mechanism(s) which will be used and date for delivery. This is agreed with that organisation. Defra's Major Landowners Group has been instrumental in supporting delivery of this work.

4.1.2 Individual remedies depend on the solutions required and land tenure. For example where a SSSI unit is overgrazed, it may require Natural England to enter into an Environmental Stewardship agreement with the land owner or occupier to change the grazing management. Or an estuary site subject to coastal squeeze may require actions by the flood management operating authority to undertake flood management schemes to reduce this pressure. It may also be identified that further investigations are needed to determine the specific problem and response required.

4.1.3 This SSSI "Remedies" data is held and managed by Natural England through a secure internet link, allowing delivery partners access. Through this database we can forecast achievability of the target, ensure focus on the real issues to tackle, and track consultation and delivery.

4.2 SUCCESSES OF SSSI PSA TARGET.

4.2.1 Since the first complete report of SSSI condition in September 2003, the area in target condition has improved from 58.3% to 88.4%.¹² Some examples of successes are:

- Agri-environment—The management needs of SSSIs were an explicit consideration in the design of HLS. In the 2007–2013 Rural Development Programme, Defra undertook to use the agri-environment measure to support the positive management of Natural 2000 sites (all of which are SSSIs) rather than the Natura 2000 measure, which would have made payments on a compensatory basis. SSSI outcomes are key to individual agreements indicators for success. Since the launch of the scheme, HLS has delivered, 57758ha of remedies on SSSIs.
- Moorburning— In 2003 SSSI condition assessment data showed that 24% of the area of SSSI was in an unfavourable condition due to inappropriate burning practices. This evidence helped influenced changes to the Heather and Grass Burning Regulations and Code, thus helping deliver more sympathetic burning practices both on and off SSSIs.
- Climate change & coastal squeeze—Since the early 1990's there has been a growing body of evidence showing how saltmarsh habitats are being lost as a result of rising sea-levels through a process known as coastal squeeze. Condition assessments show that c.20,000ha of SSSI are not in target condition due to coastal squeeze. This and other evidence, has influenced policy initiatives in a number of ways, most recently it has been reflected by Defra Flood Management in a series of "Outcome Measures" that set out what Defra expects from Flood Management operating authorities (OA) in return for the grant in aid provided. OM4 reflects the contribution that OAs are expected to make to the delivery of the SSSI PSA target.
- Water Quality and PR09—SSSIs are affected by a range of water quality and quantity issues. PR09 programme can fund and deliver considerable benefits for SSSIs and wider sustainable catchment-based solutions. Our evidence base from the SSSI condition assessments and remedies database, the outcomes of investigations from previous Periodic Reviews (AMP3/AMP4) and the Environment Agency's risk assessments from the Review of Consents project, has been used to influence Ofwat's methodology for PR09, Defra's Statement of Obligations for PR09 and Defra's Social and Environmental Guidance for Ofwat; also individual water company Strategic Direction

¹¹ www.sssi.naturalengland.org.uk/Special/sssi/search.cfm

¹² 31 March 2009

Statements, and Business Plans. Alongside this policy influencing we worked closely with the Environment Agency to develop a list of schemes and investigations that water companies needed to deliver their statutory duties. This work generated a well-evidenced list of statutory work that forms the Environmental Quality Programme for PR09 which sits alongside the Drinking Water Quality Programme. Ofwats draft determination is due to be issued in July 2009.

5. CONCLUSIONS

5.1 Natural England requires and uses evidence in support of its work at a wide range of levels of detail and a full spectrum of scales. Reliance on sound evidence is core to the exercise of all our functions.

5.2 SSSIs are the country's very best wildlife and geological site. The quality of the science & evidence on which areas are included in this series and subsequently monitored is robust, and subject to a high degree of public scrutiny.

5.3 The robustness of this evidence, allows us to determine whether SSSIs are currently well managed and protected from adverse effects, or where they are not, for "advocating" changes in management and protection. This has led to changes in management, wider consenting regimes and policy.

5.3 A catalyst for these changes has been delivery of Defra's PSA target "95% of SSSIs in a favourable or recovering condition by December 2010", but also the need to comply with wider obligations arising under EU Directives.

June 2009

Annex 2

DEFINITIONS OF CONDITION

- Favourable—maintained. An interest feature should be recorded as maintained when its conservation objectives were being met at the previous assessment, and are still being met.
- Favourable—recovered. An interest feature can be recorded as having recovered if it has regained favourable condition, having been recorded as unfavourable on the previous assessment.
- Unfavourable—recovering. An interest feature can be recorded as recovering after damage if it has begun to show, or is continuing to show, a trend towards favourable condition.
- Unfavourable—no change. An interest feature may be retained in a more-or-less steady state by repeated or continuing damage; it is unfavourable but neither declining or recovering. In rare cases, an interest feature might not be able to regain its original condition following a damaging activity, but a new stable state might be achieved.
- Unfavourable—declining. Decline is another possible consequence of a damaging activity. In this case, recovery is possible and may occur either spontaneously or if suitable management input is made.
- Partially destroyed. It is possible to destroy sections or areas of certain features or to destroy parts of sites with no hope of reinstatement because part of the feature itself, or the habitat or processes essential to support it, has been removed or irretrievably altered.
- Destroyed. The recording of a feature as destroyed will indicate the entire interest feature has been affected to such an extent that there is no hope of recovery, perhaps because its supporting habitat or processes have been removed or irretrievably altered.

Annex 3

EXAMPLES OF COMMON STANDARD MONITORING ATTRIBUTES

Attributes for lowland dry heathland

- No decline in habitat extent.
- Between 1% and 10% bare ground.
- Between 25% and 90% dwarf shrub cover.
- At least two dwarf shrub species present—for example, heather *Calluna vulgaris* and bell heather *Erica cinerea* in all stages of growth.
- Presence of fine-leave grasses and flowering herbaceous plants.
- Less than 25% common gorse.
- Less than 15% trees/scrub.
- Less than 10% bracken.
- Less than 1% exotic species, such as rhododendron.

Attributes for Hibernating Greater horseshoe bats

- Use by bats—bats seen and counted on at least one occasion per winter.
- Site secured against unauthorised access.
- Site access in suitable condition to allow continued use by bats.
- Site suitable to maintain hibernation conditions eg 8–12°C, no significant unplanned changes to ventilation.
- Disturbance not a significant effect eg human access limited and controlled.

Annex 4

TOP TEN REASONS FOR ADVERSE CONDITION OF SSSIs (AT 4 JUNE 2009)

<i>Adverse Condition Reason</i>	<i>% of total area failing PSA Target</i>
Overgrazing	24.47
Moor Burning	17.5
Coastal Squeeze	15.88
Water Pollution—Agriculture/Run Off	15.19
Drainage	11.16
Water Pollution—Discharge	9.21
Undergrazing	8.27
Inappropriate Scrub Control	8.14
Forestry And Woodland Management	4.71
Inappropriate Water Levels	4.43

Memorandum 2**Submission from the Joint Nature Conservation Committee**

INTRODUCTION

The Joint Nature Conservation Committee (JNCC) was originally established under the *Environmental Protection Act 1990* and was reconstituted by the *Natural Environment and Rural Communities (NERC) Act 2006*. JNCC provides evidence and advice to assist the UK government and devolved administrations in developing and implementing coherent domestic and international policies on the protection of natural resources as an integral part of sustainable development. The evidence and advice covers biodiversity and geodiversity issues which arise in one or more country within the UK and affect the interests of the UK as a whole, in the Overseas Territories and Crown Dependencies, and, where appropriate, internationally. Under the NERC Act, JNCC has a responsibility to promote common standards throughout the UK for the monitoring of nature conservation and the analysis of the resulting information.

In 2009–10, JNCC has allocated £2.7 million to cover work on data access, surveillance, conservation standards, analysis and reporting in terrestrial and freshwater habitats in the UK. Of this, £1.7 million is programme expenditure, mainly committed to external surveillance and monitoring initiatives. JNCC provides advice on research requirements but has a very limited resource for commissioning of external research.

SITES OF SPECIAL SCIENTIFIC INTEREST

Legislation in the United Kingdom makes provision for Sites of Special Scientific Interest (SSSIs) designated for their biological or geological features. By March 2008, there were 6,567 SSSIs in England, Scotland and Wales, and a further 256 Areas of Special Scientific Interest in Northern Ireland (ASSIs), covering between them over 2.4 million hectares.¹³

The purpose of SSSIs¹⁴ is to safeguard the diversity and geographic range of habitats, species, and geological and physiographical features, including the full range of natural and semi-natural ecosystems and of important geological and physiographical phenomena. The SSSI series should therefore include all of our most valuable nature conservation and earth heritage sites, selected on the basis of well-established and publicly available scientific criteria (Defra, 2003).

SSSIs are included within the first of six priorities within the UK approach to conserving biodiversity set out by the UK Biodiversity Standing Committee (Defra, 2007):

1. protecting the best wildlife sites;
2. targeted action for priority species and habitats;

¹³ www.jncc.gov.uk/page-4241

¹⁴ For brevity, when the term SSSI is used in a UK context, it includes ASSIs in Northern Ireland

3. embedding biodiversity considerations into all sectors of policy and decision-making;
4. engaging people, and encouraging behaviour change;
5. developing and interpreting the evidence base,
6. taking a proactive role in the development and delivery of Multi-lateral Environmental Agreements.

GUIDELINES FOR SELECTION OF SSSIs

JNCC, working with the nature conservation agencies, has provided guidelines for the selection of biological and geological Sites of Special Scientific Interest (SSSIs). The *Guidelines for the Selection of Biological SSSIs* (NCC, 1989) and the *Introduction to the Geological Conservation Review* (Ellis *et al.*, 1996) remain the key documents for the agencies in informing decisions on the identification of biological and geological SSSIs, respectively.

The biological guidelines set out general principles upon which the nature conservation agencies make judgments regarding special scientific interest. These principles are supplemented by details of wildlife habitat types and species groups. Since 1991 JNCC has taken a lead in the production and revision of the guidelines¹⁵ and the need for a further revision has recently been considered by the Chief Scientist Group of JNCC and the nature conservation agencies. Chief Scientists agree that some limited revision is needed to the rationale and principles for site selection to capture recent changes in law, administration and practice due to devolution and also to address changes in terms of the purpose of the network, particularly with regards to ecological coherence and its role in dealing with climate change impacts. Some gaps in habitat and taxonomic coverage have also been noted. Subject to resources within JNCC and the agencies, and in line with the new JNCC strategy, it is intended that this revision should be undertaken by a time-limited inter-agency group.

For geological SSSIs, the Geological Conservation Review programme has aimed to create a register of those sites of national and international importance which demonstrate all the key scientific elements of the geology and geomorphology in Britain. Nearly all of the sites listed have now been notified by the country agencies as SSSIs, relying on evidence in the GCR to provide the scientific justification. JNCC is currently working towards completion of the GCR series of publications by 2011.

COMMON STANDARDS MONITORING

JNCC, working with the nature conservation agencies, has developed common standards and guidelines for monitoring the condition of SSSIs.¹⁶ Common Standards Monitoring assesses the special features for which the site was designated to determine whether they are in a favourable condition. The nature conservation component which is assessed is therefore not the site itself, but the feature (eg habitat, species, or earth science feature) for which it was designated. Sites may have one, two, or several interest features on them. Key attributes of the feature (eg extent, quality, supporting processes) are identified and thresholds set for each. Each attribute is then measured and compared against the threshold. If all the thresholds are met, the feature is assessed as being in favourable condition. Human activities and other factors which are likely to be affecting the site adversely, and the conservation measures taken to maintain or restore the site, are also recorded. JNCC's role has been to develop the standard and provide guidance. Agencies then interpret this flexibly to suit their own circumstances, including quality assurance. The agencies have also set targets for the overall status of their SSSI network, agreed with their respective Governments.

UK REPORTING

JNCC has collated information from each of the country agencies to provide a UK report on condition of SSSIs (Williams, 2006). The information has been used by JNCC in reporting on favourable conservation status under Article 17 of the European Community Habitats Directive.¹⁷ The JNCC also collates information for a UK indicator for extent and condition of SSSIs used in the Defra publication "*Biodiversity Indicators in Your Pocket*" (Defra, 2009).¹⁸

JNCC's future role in supporting and using results of Common Standards Monitoring is currently under review.

June 2009

¹⁵ www.jncc.gov.uk/page-2303

¹⁶ www.jncc.gov.uk/page-2199

¹⁷ www.jncc.gov.uk/page-4060

¹⁸ www.jncc.gov.uk/page-4241

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Memorandum 3

Submission from the Royal Society for the Protection of Birds

SUMMARY

1. Sites of Special Scientific Interest (SSSIs) form the backbone of biodiversity conservation and recovery in the UK. In underpinning the Natura 2000 network of Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) they are central to delivering the objective of the EU's Birds and Habitats Directives of restoring and maintaining species and habitats of European importance to a favourable conservation status.
2. A sound scientific evidence base laid the foundation for the SSSI system and continues to be key to the proper functioning of the system, informing site identification and notification, management and monitoring. Going forward it is vital that this be sustained, as it will be critical in enabling us to increase the resilience of the individual designated sites and the network as a whole to a range of pressures, including those associated with climate change.

THE RSPB: SCIENCE AND SSSIs

3. The RSPB is a science-based organisation, and makes significant investment in both primary survey and ecological research, the results of which are peer-reviewed and published. This informs our conservation advice and advocacy work, and the management of our 207 reserves (many of which are SSSIs).
4. Often working with others including Natural England and the British Trust for Ornithology, the RSPB is a major contributor to the evidence base upon which the SSSI system relies (for example through the Wetland Bird Survey (WeBS) and the Scarce and Rare Breeding Birds Survey (SCARABBS)).

SSSI IDENTIFICATION AND NOTIFICATION

5. High quality survey data at both the broad and site-specific levels are essential to the identification of potential SSSIs, and to the development of a robust scientific case to underpin notification/renotification of these sites.
6. As declines continue in the wider countryside, the SSSI network has become increasingly important, and the RSPB is concerned that the SSSI network remains incomplete. In addition, some 60% of SSSIs were first recognised as important 20–60 years ago, and so periodic review and update of the current suite of SSSIs is required.¹⁹
7. There has been a failure to undertake systematic review of the SSSI series in the context of the coherence of the network, and in recent years, (re)notifications have been made only on an ad hoc basis, generally in response to development threats.
8. In addition, a failure to review and (where appropriate) update the 1989 SSSI selection guidelines means that the increasing rarity and reliance of some features on SSSIs over time (eg breeding waders), and enhanced scientific understanding of ecosystem dynamics, have not been reflected, and thus not targeted through notification or subsequent management and monitoring.
9. Consistent with these issues, has been a reduction in site-specific survey to inform site notification and review. Substantial investment in survey in the past has provided a strong scientific basis for the SSSI system, but this must be sustained to facilitate the completion and periodic review of the network.

¹⁹ National Audit Office. 2008. "Natural England's Role in Improving Sites of Special Scientific Interest".

SSSI MONITORING AND MANAGEMENT

10. For birds in particular, it is essential that agreed SSSI conservation objectives reflect the need for an intelligent link between the birds and the habitats upon which they rely. For example, significant changes in migratory populations present on a given site between years may be due to either on-site factors, or to factors affecting migration or sites used at other times of year. In other words, it is essential that conservation objectives address bird populations in the context of their ecological requirements, and that monitoring is effective in measuring relevant parameters to highlight concerns early on, in allowing differentiation between on and off-site issues, and in triggering effective action where required.

11. Common Standards Monitoring (CSM) introduced standard guidance on Conservation Objectives and SSSI condition assessment. More recently, the Government's PSA target for SSSIs (95% of all SSSI land in England to be in favourable or recovering condition by 2010) has resulted in the introduction of a clear mechanism to ensure that unfavourable assessments trigger remedial action ("remedies"). This is most welcome.

12. However, CSM for birds is insufficiently sensitive to changes in populations, only triggering unfavourable status when declines of 25% (breeding) or 50% (wintering) or more are observed: this means that early and cost-effective intervention to avoid deterioration is not facilitated by the current system. In addition, CSM for birds makes no assessment of habitat quality, which is essential for intelligent analysis of bird population changes at site level.

13. Furthermore, while some sites are covered by adequate and coordinated bird survey programmes (eg Wetland Birds Survey), recommended minimum accepted levels of site based monitoring under CSM for birds (counts from three relevant seasons in a six year reporting cycle) are inadequate to accurately assess population levels.

14. These issues highlight the importance both of strategic and sustained survey and monitoring effort to underpin effective condition assessment, and the maintenance of appropriate ecological expertise amongst the conservation agency staff who are required to make assessments on the basis of limited information.

15. Finally, it is important to note that most progress towards the PSA target been made in the transition of large areas from "unfavourable" to "unfavourable recovering" condition, triggered by the introduction of management intended to address the causes of unfavourable condition.

Whilst the PSA target of 95% of all SSSI land in England to be in favourable or unfavourable recovering condition by 2010 will be met, so far the attainment of favourable condition has remained roughly static at around 45%. Thus as we move to 2010 and beyond, effort must be sustained to attain real delivery in terms of favourable condition. A sound scientific understanding of the causes of unfavourable condition and the efficacy of management measures will be key to assessing the extent to which measures now in place will deliver the desired results, and to re-focus action where the present measures are found to be ineffective. It is clear that greater investment in science to "crack" particular issues (eg the effects and management of diffuse pollution in fresh water ecosystems) will be necessary along the way.

THE FUTURE

16. Building resilience through *in situ* conservation is essential: tomorrow's biodiversity will come from today's. In the face of climate change, the function of individual sites within the SSSI network and the species they support may change, but it will be essential that the integrity and coherence of the SSSI network is maintained.

17. In this context, the need for science to ensure that SSSIs are fit for purpose, effectively monitored and successfully managed will become increasingly important. These sites and our understanding of their role within the wider environment will be key to sustaining vulnerable populations by building their resilience to the impacts of climate change *in situ*, while also taking action to accommodate and facilitate species range shifts.

18. We welcome Natural England's recent notification strategy that commits to strategic and science-based review of the SSSI network, acknowledges associated data needs and the potential need for additions/amendments to the SSSI selection guidelines. However, we are concerned that, with the passing of the 2010 deadline for the SSSI PSA target, momentum to monitor, maintain and restore sites to favourable condition may be lost, just when it is most needed to ensure that the hard work to date translates into real change.

June 2009

Memorandum 4

Submission from the National Farmers' Union of England and Wales THE SCIENCE OF SITES OF SPECIAL SCIENTIFIC INTEREST

INTRODUCTION

1. The National Farmers' Union (NFU) welcomes this opportunity to submit evidence to the Committee's inquiry on Sites of Special Scientific Interest (SSSIs). The NFU represents over 55,000 professional farmers and growers in England and Wales. A significant proportion of our members manage land within SSSIs either as owner occupiers, tenants or as graziers of common land. While the National Audit Office²⁰ indicates that 29% SSSI area is managed by "independent landowners", the remaining area under control of "major landowners" is most often let on tenancies to agricultural tenants and graziers. All those involved in managing designated SSSIs have an interest in the scientific understanding that informs SSSI selection, condition assessment, objective setting and management. Put simply, the rationale for designation and management within a SSSI needs to be understood by those managing these sites on a daily basis.

NFU EVIDENCE

2. A robust science basis is implied and required for the credibility of the UK's SSSI network yet it was not until 1989, following the publication of "Guidelines for selection of biological SSSIs"²¹ that consolidated national guidance was published explaining the basis of SSSI selection—the geological equivalent was completed in 1990. Thus for the first 40 years of their legal existence SSSIs were proposed by local Nature Conservancy Council staff on the basis of best available evidence before confirmation by the NCC Council. Given the furore that followed the Wildlife and Countryside Act 1981, which required re-notification of SSSIs to those owning and managing them (who hitherto had not been informed of designation), the absence of consolidated guidelines is in retrospect extraordinary.

3. We identify two key areas which require a robust scientific base and consider each in more detail below:

- Designation—owners and occupiers will wish to be assured that the selection of sites of special interest is undertaken consistently. For example, sites should be of similar value, reflect the spatial variation and diversity of habitat across Great Britain and surpass a minimum threshold to be of "special interest".
- Management—assurance is also needed that science underpins decisions on management permitted to be undertaken on SSSIs and that management prescriptions incentivised or imposed on owners and occupiers will achieve the objectives Natural England (NE) or Countryside Council for Wales (CCW) require.

Issues related to the science underpinning notification

4. Notification of a potential SSSI is often the first time an owner or occupier will be aware that an area of land is under consideration for statutory protection, although they may have been aware of its wildlife interest previously, often as a result of their own environmental stewardship. The notification and designation procedures established under the Wildlife and Countryside Act 1981 was radically amended by the Countryside and Rights of Way Act 2000. It is not our purpose to repeat these provisions but to note that statutory protection significantly curtails opportunities to manage land as owners and occupiers are required to obtain prior consent for undertaking potentially damaging activities from NE or CCW.

5. As the NAO report notes (page 23) private landowners and occupiers frequently subsidise the costs of managing SSSIs. Given the potential restraint on freedom to manage land, as well as the actual costs, it is not unreasonable to expect the evaluation of potential SSSI to be guided by a consistent and scientifically robust framework and that this evidence base is freely available and explained to those managing such sites.

6. Both Geological and Biological guidelines can be downloaded from NE's website²² both of which provide a comprehensive scientific explanation as to the basis of site selection at a national and habitat level. Both documents while establishing a consistent framework explicitly recognise that this exercise must be constantly under review and based on expert judgement, for example:

"This document [Guidelines for selection of biological sites] aims to provide an exposition of the SSSI selection process, from which to decide, explain and defend any case to the best of our NCC [now NE and CCW] ability. Yet in the last analysis, each case rests on matters of opinion. It is thus not intended that anyone should try to apply these guidelines as a rule book. They do not provide final or exact criteria, but indications of presumptions to assist decisions for or against selection". Page 20, paragraph 4.16

7. On notification owners and occupiers have four months to make objections and representations known to the local NE/CCW area office. Unresolved objections will be considered alongside the proposed notification prior to confirmation by NE or CCW Board. Significantly Ministerial guidance indicates that

²⁰ National Audit Office (2008) "Natural England's Role in Improving Sites of Special Scientific Interest" HMSO, London

²¹ "Nature Conservancy Council" (1989) "Guidelines for Selection of Biological SSSIs" NCC Peterborough

²² www.naturalengland.org.uk/ourwork/conservation/designatedareas/ssi/designation.aspx

NE's Council should base its decision on a "full and careful assessment of the scientific evidence" justifying designation or amendment of any notification eg that part of the site does not contain species or habitats proposed.²³ The Wildlife and Countryside Act (section 28(4)) requires NE, or CCW, to provide the reasons for notification, the operations likely to damage these interest (and therefore requiring prior consent) and a statement on site management.

8. We strongly support the importance of clear explanation of rationale and objectives for each site owner and occupier and believe that this should be based on a credible science base. However, we are concerned that the NAO study found that a significant number of SSSIs (35%) had not yet had conservation objectives set for them and that of those sites audited a significant minority contained mis-identified or unmapped habitats. We understand that NE has a significant challenge to bring SSSIs in favourable or recovering condition, but eight years after the CROW Act believe that the lack of such basic information about the special interest of sites represents a fundamental shortfall in communication to those managing SSSIs.

9. A final point on notification is that of the changing context in which SSSI are now located. For much of their history SSSI have literally been the ecological and geological jewels in the crown, protected from negative impacts by legislation. The context as we look forward is significantly different: environmental land management is now common place outside SSSIs with the majority of farmers now participating in Environmental Stewardship schemes. Climate change is already impacting ecology and agriculture with higher annual temperatures, drier summers and wetter winters. It seems likely that by mid-century a changing climate must question the sustainability of some of our current SSSIs, especially those reliant on cool damp conditions in eastern and southern England, coastal habitats and semi-alpine habitats in the Pennines and Scotland. As climate change prediction becomes more refined, the current SSSI network must be continually reviewed. However, we believe that predicting how the SSSI network needs to respond and be supported by country-wide habitat provision in order to cope with these future pressures, is a complex scientific challenge. This is overlaid with additional scientific questions and possible policy conflicts such as how increased emphasis on the provision of such permeability and stepping stones outside SSSIs to allow species to move and adapt, could also provide increased opportunities for the spread of invasive non-native species.

Issues related to the science underpinning site management

Science matters in respect to three aspects of SSSI land management:

- a. to evaluate potentially damaging operations;
- b. to recommend land management to recover SSSI condition; and,
- c. to require specific management be undertaken as part of a management notice or following an offence.

10. We have noted that SSSI notification triggers a prior consent management requirement for farmers and landowners (Section 28E). Should a farmer wish to undertake an activity requiring prior notification then local NE staff must assess whether the proposal will have a detrimental impact on the special interest of the site. NE's guidance²⁴ to owners and occupiers emphasises that simply because an activity requires notification does not mean that consent will be refused, by which we understand that it is the nature, timing and extent of proposals which will be critical to NE local staff evaluation. We presume that such judgements are made on the basis of generally understood ecological principles, although NE's guidance provides little explanation of the basis of such evaluation. This is important as while the legislation requires formal notification and written consent, the critical discussion will be face-to-face discussion between farmer and NE advisor as to the appropriateness of proposed actions and these will have subtle site-specific interpretations.

11. Defra has a Public Service Agreement target to return 95% SSSI area to favourable or recovering condition by 2010. To achieve this local NE staff must set site objectives, complete regular condition assessments and most important recommend land management that will set each site on a path to revering condition. The National Audit Office report raises concerns in respect to the accuracy of this monitoring. In each respect understanding of not only general ecological principles but also local site conditions and likely responses to intervention must be understood. The experience of NFU members is that too few local NE staff have the necessary local site experience or long standing relationships with site owners or occupiers needed to set every site on a path to recovering condition without some trial and error; this problem is exacerbated by the lack of consistent keeping of case notes by some NE staff, leading to a loss of continuity in advice.

12. This lack of local site knowledge is of critical concern in the rare circumstances where restoration or management notices are required. In such circumstances the legislation (section 28K) allows NE to require owners and occupiers to carry out work necessary to protect the special interest of the site. Such notices can be challenged. We anticipate in such circumstances the basis on which requirements are made must be ecologically watertight.

²³ Defra (2003) "SSSIs—Encouraging Positive Partnerships" Defra London www.defra.gov.uk/wildlife-countryside/pdf/protected-areas/ssi-code.pdf

²⁴ Natural England "Sites of Special Scientific Interest—England's Special Wildlife and Geological Sites" publication NE54

CONCLUSION

13. We welcome the Committee's inquiry on SSSIs. We have argued strongly that the science backing SSSI notification and management is critical to the credibility as well as the management of these nationally important sites. Equally we have made the case for sound ecology to inform decisions that NE and CCW staff hold with farmers and landowners. Having said this, of most importance is the relationship between local NE staff and sites owners and occupiers. Natural England must strive for continuity in these relationships such that trust can build between both parties—science is a support not a replacement for these relationships.

June 2009

Memorandum 5
Supplementary evidence from the Joint Nature Conservation Committee

INTRODUCTION

This supplementary written evidence is provided for further clarification and elaboration of the oral evidence provided by Dr Andrew Stott during the committee session on Wednesday 17 June.

REVIEW OF SSSI SELECTION GUIDELINES

JNCC agrees that the site selection guidance remains broadly fit for purpose, and underpins UK implementation of the EC Habitats and Birds Directives but needs updating to take into account changes in governance, legislation and wider approaches to conservation being developed within the UK Biodiversity Action Plan and country biodiversity strategies. Parts A and B of the guidance, which set out the rationale and principles for site identification require revision to capture the changes in law, administration and practice due to devolution and also to address changes in terms of the purpose of the network, particularly with regards to ecological coherence and its importance in dealing with the impact of climate change.

The specific guidance on most terrestrial and freshwater habitats and taxonomic groups is still applicable. Some minor revisions and additions are required eg for pool frog, bog woodland and some other habitats. As part of this ongoing revision process, new guidelines for selection of sites for grassland fungi will be published by JNCC on 26 June. Whilst it is acknowledged that some of the data used to set thresholds and scales is out of date, in practice the agencies exercise their own judgement in the application of the guidance, taking account of more recent data.

Under the Marine Bill (England and Wales) there are provisions regarding the overlap between SSSIs which include sub-tidal land and Marine Conservation Zones. Draft guidance has been produced which includes sections on SSSI notifications within estuaries and inter-tidal areas; existing SSSIs extending beyond mean low water, and de-notifications. The proposed provisions and implications with regard to the SSSI Selection Guidelines need to be clarified.

The Joint Committee agreed at its meeting on 22 June 2009 that whilst the priority of work to revise the SSSI selection guidelines varied between country conservation bodies, this should be given a higher priority within JNCC. The resource requirements and options for delivering this, and other high priority work to establish UK-wide conservation standards, should be reported back to the next meeting of the Joint Committee in September.

JNCC ROLE IN MONITORING AND SURVEILLANCE OF TERRESTRIAL AND FRESHWATER BIODIVERSITY

JNCC provides common standards for monitoring and surveillance where these are required by EU Directives, or UK and international policy. JNCC also has a role in co-ordinating monitoring strategy terrestrially under the remit of the UK Biodiversity Standing Committee and as a contribution to the UK Environmental Research Funders Forum—Environmental Observation Framework.

JNCC has a terrestrial and freshwater surveillance programme which invests £1 million annually into schemes designed to detect change relevant to biodiversity objectives in birds, mammals, butterflies and to a much lesser extent plants and other invertebrates. The JNCC funds partnerships with the voluntary sector and NERC Centre for Ecology and Hydrology to deliver high quality survey work using an extensive network of volunteers. These surveillance schemes include SSSIs and other designated areas but are not limited to them.

The biodiversity surveillance strategy aims to optimise investments by JNCC and other funders to meet four main requirements:

- (i) to access progress towards biodiversity strategy goals (eg: halting the loss of biodiversity) and identify the constraints (pressures) preventing their achievement;
- (ii) to measure and provide feedback into various policy mechanisms (eg SSSI designation, agri-environment schemes etc) designed to help achieve strategy objectives;

- (iii) to ensure that legal (and policy) obligations for surveillance and monitoring, or for reporting are adequately supported; and,
- (iv) to provide the data for modelling that allows prediction of future trends and evaluation of policy options.

June 2009

Memorandum 6

Supplementary submission from Natural England

SITES OF SPECIAL SCIENTIFIC INTEREST

Thank you for the opportunity to give oral evidence to your Committee on 17 June 2009. During the meeting, we promised to provide the Committee with further information.

With regard to Dr Iddon's inquiry regarding volunteers (Q73 and Q74), I am pleased to say we have increased our volunteer base across the organisation by 11.3% between 1 April 2008 to 31 March 2009 which represents 246 new volunteers. We have also recruited a further 154 volunteers in the first quarter of this financial year which equates to an increase of 6.4%.

With regard to Mr Stringer's inquiry about the general pressure to notify additional SSSIs to comply with European targets, there was a process called "moderation", where the European Commission called for additional areas to be submitted for consideration as Special Areas of Conservation (SACs) under Council Directive 92/43/EEC (known as the Habitats Directive). Areas submitted as part of this process were, in the vast majority, already considered of national importance and notified as SSSIs. In the specific case of Manchester airport, the area in question held populations of Great Crested Newts. Under the Habitats Directive these species require both individual protection and protection of a proportion of their habitat. The area of the Manchester Airport expansion was initially considered as potentially qualifying for inclusion as an SAC, but following comparison with other sites across England was not in the final submission.

In our conversation following the evidence session, we also offered to share our draft SSSI Notification Strategy with the Committee. As we explained to Committee, this outlines the principles for SSSI notification (as enshrined in the Guidelines), together with how the current series has developed. It further explains our plans to ensure a strategic approach to SSSI notification, to fill existing gaps in coverage, ensure the most valuable sites are included and, as far as practicable, ensure sites are dynamic and resilient to the effects of climate change. I enclose this information at Annex 1 together with the Background and Supporting information which can be found at Annex 2.

I hope this is helpful and look forward to reading the Committee's report of this inquiry.

Dr Helen Phillips
Chief Executive
Natural England

July 2009

Annex 1

SITES OF SPECIAL SCIENTIFIC INTEREST (SSSI): A DRAFT NOTIFICATION STRATEGY FOR ENGLAND

1. BACKGROUND

1.1 The SSSI notification provides Natural England with a statutory duty to notify land which in its opinion is of "special interest" by reason of its wildlife (habitats and species) or geology. However, the natural environment is dynamic, the nature of threats to it may change over time and our understanding of habitats, species and geology is constantly developing. Mindful of these facts, Parliament has also given Natural England powers to amend existing SSSI notifications, either by varying interest features, including additional land or both. Taken together, these powers and duties provide Natural England with a means of conserving areas that it considers to be of "special interest" by reason of their wildlife (habitats and species) or geology. Where land is not considered to be of special interest, Natural England also has a power of "denotification" to remove an existing notification from a SSSI, or any part of a SSSI.

1.2 There is no statutory purpose for SSSIs; however a general purpose is defined in government policy. Defra's code of guidance states that:

"The purpose of SSSIs is to safeguard, for present and future generations, the diversity and geographic range of habitats, species, and geological and physiographical features, including the full range of natural and semi-natural ecosystems and of important geological and physiographical phenomena throughout England. The sites included within the series of SSSIs are intended collectively to comprise the full range of natural and semi-natural habitats and the most important geological and

physiographical sites. The SSSI series should therefore include all of our most valuable nature conservation and earth heritage sites, selected on the basis of well-established and publicly available scientific criteria.”

1.3 SSSIs are the country’s very best wildlife and geological sites. They include some of our most spectacular and beautiful habitats. They are essential to preserve our remaining natural heritage that is under pressure from development, pollution, climate change and inappropriate land management practices. SSSI status is important since it provides a means of supporting habitats, plants and animals that find it more difficult to survive in the wider countryside, and in turn it protects a wide range of ecosystem services that will be crucial in adapting to and mitigating the effects of climate changes.

2. ISSUES

2.1 It is recognised that whilst the SSSI series is largely sufficient for many interests, there are some habitats and species not covered by the guidelines (eg fungi), and some areas of the country where some features are not well represented (eg lowland heathland in western Cornwall).

2.2 As our scientific understanding of the needs of many habitats and species improves, and the predicted impacts of climate change become more apparent, the existing series needs to be kept under review (eg to ensure new features are adequately protected and site boundaries reflect needs of dynamic systems). We may also consider that a higher (or lower) proportion of the total resource should be protected within the SSSI series.

2.3 The draft National Audit Office report “*Natural England’s role in improving the condition of Sites of Special Scientific Interest*” recommends that Natural England periodically reviews the coverage, interest features and boundaries of SSSI and updates the current suite of SSSIs appropriately. Such changes to the SSSI series would ensure that the series remains responsive and resilient to changes in the natural environment and our understanding of it, as well as highlighting and building on the immense value of SSSIs to society. The review should also consider denotification of sites (or parts thereof) that are not considered to be of special interest, to ensure the series as whole is not devalued.

2.4 In recent years, SSSI notifications have been progressed largely on an *ad hoc* basis, with proposals for new or amended sites generally being identified and put forward by area teams; subsequently forming an annual programme of notifications. In order to plug existing gaps in the series and ensure our effort is focused on areas in need of greatest attention, it is timely to put in place a more strategic approach to notification.

2.5 The current selection guidelines remain substantially fit for purpose and there is no need to review them in total. There are several generic issues, including the lack of a biogeographical basis for the current “Areas of Search”, insufficient emphasis placed on a holistic approach to boundary selection and the absence of any clear advice on the selection of “archipelago” sites.

3. STRATEGIC APPROACH

3.1 Given the general purpose and value of SSSIs, the SSSI series should have the following three features:

1. It should comprise the full diversity and range of habitats, species, and geological and physiographical features (including the full range of natural and semi-natural ecosystems and of important geological and physiographical phenomena) throughout England.
2. It should contain our most valuable (important) nature conservation and earth heritage sites. With value (and thus special interest) considered as both a factor of intrinsic conservation needs (of habitats and species) both now and in the future and of the value of these features to society (for example, for ecosystem services such as carbon storage and flood management). It should also allow international and EU commitments to be met.
3. It should be comprised of individual SSSIs that (as far as possible) are dynamic and resilient to the predicted effects of climate change and comprise a network to increase connectivity and reduce habitat fragmentation including entire management units and follow a “whole system” approach. Sites should be kept under review, to ensure the continued value of the series.

3.2 In order to ensure that the SSSI series exhibits and retains these features, Natural England’s strategic approach to notifying new and amended SSSIs should be based on the following principles aimed at addressing the issues identified in section 2 (above):

- Priorities identified by the BAP process would be a driver, although not the sole focus (since we need to recognise for instance that some features are not BAP priorities simply because existing mechanisms, such as SSSIs already provide for their conservation).
- A strategy for notifications would need to be mindful of the importance of features at EU and international level, in addition to the national context.
- Identification of gaps and shortfalls in existing SSSI coverage would be undertaken at a national level in the context of an ecologically meaningful framework of geographical selection units. Selection of individual sites to fill gaps or validation of proposed sites from national analyses of coverage would then be carried out locally.

- It will be explicit from the outset what contribution a site makes to the overall purpose of the SSSI series, with the coverage sought for a habitat or species in the series informed by factors including its intrinsic value, vulnerability and the importance attached to any ecosystem services provided.
- As far as possible, new and amended SSSIs would be dynamic in the face of natural processes and resilient to the predicted effects of climate change—this may mean that they would accommodate space for natural processes, include whole systems or features and sit within a functioning habitat network.

4. IMPLEMENTING A STRATEGIC APPROACH

4.1 We have neither the resources nor the necessary data to carry out all of the analyses and reviews for all habitats and species in England, to form a complete view on what a sufficient SSSI series (as per the purpose defined above) would comprise. Whilst our longer term aim should clearly be to have this level of understanding, this should not prevent us from progressing notifications in areas where we are already clear of the future needs for both the SSSI series and individual sites. Work is currently underway and planned for the future to improve our habitat inventories that will feed into these analyses and increase their accuracy as they progress.

4.2 Work should progress in cases where existing sites require notification amendments, and also in areas where recent reviews of SSSI coverage have been undertaken and in other cases where a strategic approach can easily be implemented (perhaps for very rare habitats or species where the analyses are straightforward). Where full reviews of coverage have not commenced, specialist judgement and opinion will allow us to form a view on whether there are significant gaps in coverage that need to be addressed more immediately and what improvements to our understanding and data might be necessary in order to progress a more strategic notification programme.

4.3 Natural England will use expert judgement and opinion, in addition to existing reviews of SSSI coverage, to draw up a medium term strategy to plug gaps that Natural England specialists are already aware of or can determine from existing information. For each grouping of SSSI features we will:

1. Define the features for which SSSI notification is appropriate.
2. Assess the contribution of the existing network, in the context of overall coverage and existing sites, on the basis of existing data (identifying shortfalls in data where necessary).
3. Form a view on the adequacy of the existing SSSI series, and identify sites in immediate need of notification amendments (either because interest lost through natural change or favourable condition is dependent on changes to site boundaries, interest features or operations regulated on the site). The adequacy of existing SSSI boundaries and features of interest will be reviewed as part of the Condition Assessment process.
4. Produce a prioritised plan of any future new or amended notifications required to fill major gaps in coverage or contribute to PSA target delivery.

4.4 In practice, this strategy will be implemented through two parallel strands of work (see figure 1, below). Strand one will be led by the relevant specialists in the Evidence Team, who will review notification requirements, assess the adequacy of the current SSSI series and identify any gaps in coverage. The second strand aims to review the boundaries and interests of existing SSSIs to ensure that they remain fit for purpose and resilient. This will be led by regional teams and carried out as part of the condition assessment process.

4.5 This strategy will be implemented from 2009–10. The rate of progress will be influenced by the expertise within Natural England and the competing demands on specialists' time. For example there are a number of gaps in current specialisms that may hinder this work. Conversely in other areas it is already possible to identify priorities for notifications, in the context of a strategic approach. This means that the results of the national analyses will be delivered over varying timescales for different groups of interest features.

4.6 Similarly, the regional reviews will run over a period of at least six years initially (based on the common standards monitoring cycle) and then become part of business-as-usual related to monitoring and conservation objectives. To ensure that any issues are captured as they arise, we should add a reporting requirement to ENSIS to flag where sites are “at risk” in the medium to long term, and for which notification amendment may be required.

Figure 1

IMPLEMENTATION OF THE STRATEGY THROUGH TWO STRANDS

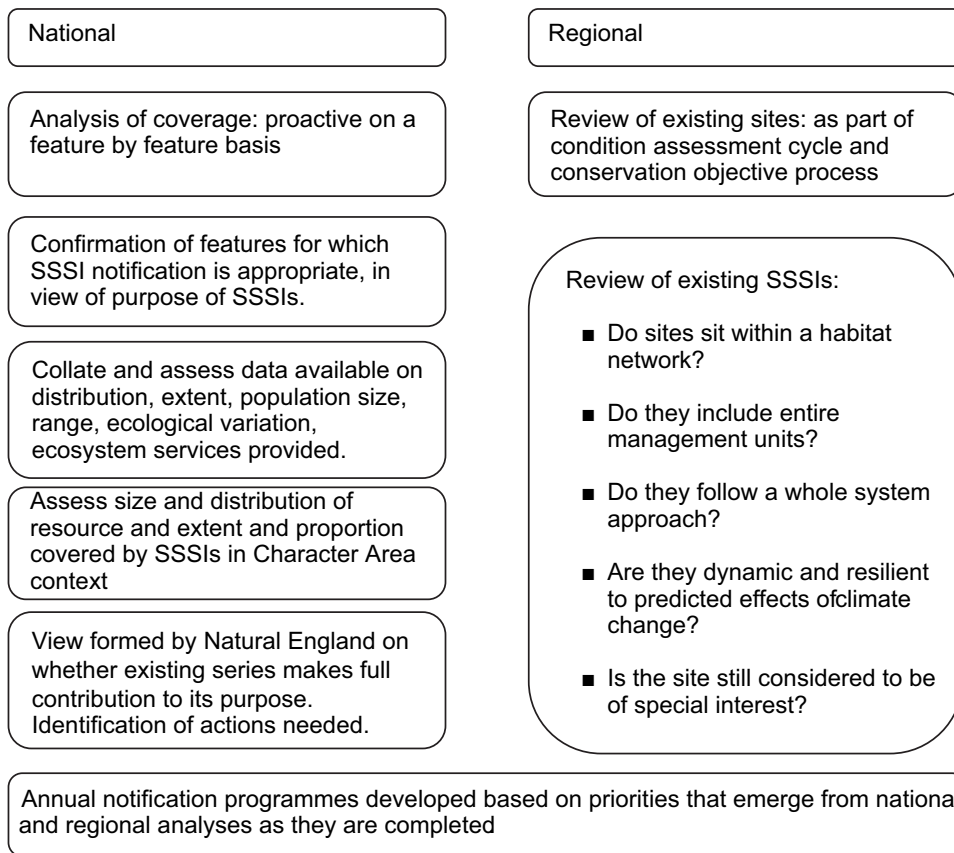


Figure 2

RESULTS OF REVIEWS AND POSSIBLE SCENARIOS FOR FUTURE NOTIFICATIONS

PREDICTED NOTIFICATION SCENARIOS

These scenarios are developed by having regard to existing Legislation, building on the principles developed from previous challenges to SSSI notifications.

SCENARIO 1A—CHANGE OF INTEREST FEATURES WITHIN EXISTING SITE

The reviews may identify sites with additional interest features not explicitly referenced on the citation. Where these features are fully protected by the existing citation, for example a species that is reliant on a particular habitat and its management there will be no need to amend the citation to ensure its full protection. However, where the habitat or species is not protected by the existing notification, because, (amongst other reasons) it requires a different type of management regime, the citation can be amended through the s.28(A) variation process, to add these species or habitats to the citation. Guidelines are needed for some features, most notably fungi, but lack of these would not prevent Natural England amending a SSSI in the interim.

SCENARIO 1B—SAME HABITAT/SPECIES FEATURE ADJACENT TO SITE—EXTENSION TO SITE

The reviews may identify that there are areas of land, adjacent to existing SSSIs that contain interest features, that we would consider also of special interest, and may contribute to resilience of the site to climate change. This additional land can be added into an existing site, through s.28(B) notification process.

SCENARIO 1C—ADJACENT LAND SUPPORTS PROCESSES THAT MAINTAIN SPECIAL INTEREST IN EXISTING SITE

(eg sediment supply, hydrology, feeding habitat of mobile species, etc)

The review may identify SSSIs have been notified with boundaries that closely follow the extent of habitat distribution. But such sites maybe reliant on sediment supply, hydrology, or contain mobile species that use clearly identified feeding outside existing boundaries. In these cases it would be possible under existing guidelines to include this land within the boundaries.

SCENARIO 1D—DYNAMIC SYSTEM NATURALLY MIGRATING INTO ADJACENT LAND

Where SSSIs are notified for dynamic habitats and species, and there is clear evidence that these are naturally migrating in new areas, it would be possible to include new areas within the SSSI boundary, where it is reasonably predictable that the special interest would be present in the future. Recent notification that support this proposition are Breckland Farmland SSSI, Pakefield to Easton Bavents SSSI and Compton Chine to Steephill Cove SSSI. Where species are predicted to migrate, north for example through the results of climate change, citations can be amended once the species or habitat arrives, and may in some instances be added to the citation, where there is sufficient evidence to satisfy the requirement that it is reasonably predictable in the near future.

SCENARIO 1E—PERMEABLE HABITAT BETWEEN SITES, ON WHICH TO MAINTAIN ECOLOGICAL PROCESSES

Where there is a habitat type, on which a feature relies to maintain ecological processes for the long term viability of the SSSI, it would be possible to use the SSSI notification to include this land, and include within an existing, or new SSSI. Again there would need to be sufficient evidence to show the importance of this area to the core site and the processes that it supports.

SCENARIO 2A—LAND BETWEEN TWO SITES, THAT IS NOT PERMEABLE HABITAT (AND WOULD NOT BE WITHOUT ACTIVE INTERVENTION IN MANAGEMENT)

The review may identify sites, that need to be incorporated within a habitat network, but all land between is not permeable habitat. A stark example could be two fens in a swathe of arable fields. It would be difficult to include the land between as currently of special interest, since it does not have a current interaction with the existing sites, and future interest would rely on an active intervention. It would thus be difficult to show that it is “reasonably predictable” that the special interest would be present.

SCENARIO 2B—AREA ADJACENT TO AN EXISTING SITE NOT OF SPECIAL INTEREST, WHERE A PHYSICAL MAN MADE BARRIER EXISTS, AND ACTIVE INTERVENTION NEEDED TO REMOVE IMPEDIMENT TO DYNAMIC SYSTEM

The review may identify a site that is enclosed, by a physical barrier, preventing migration of dynamic habitats. An example would be a coastal SSSI with a sea wall behind. The land behind the wall could not reasonably be notified until such a time as it was predictable that the special interest would be within the site. Such a scenario may be after permissions were received to breach the seawall.

4.7 During 2009–10, the following tasks should be progressed:

1. Define the features for which SSSI notification is appropriate across all groups and identify the areas of priority for further analysis and review.
2. Complete national analyses of coverage for straightforward groups.
3. Identify information needs and gaps in understanding for less straightforward groups.
4. Targeted regional reviews of existing SSSIs to identify any amendments required to support delivery of the SSSI condition target.
5. Progress notification of high priority cases and features that have already been strategically reviewed. The likely priorities 2009–10 are:
 - Bolton Fell Moss SSSI extension—necessary to comply with our EU commitments.
 - Any sites that are identified for the three Habitats Directive Annex II species for which Defra have undertaken to submit cSACs from August 2009—necessary to comply with our EU commitments.
 - Cornwall site for the globally critically endangered many-fruited beardless moss *Weissia multicepsularis* which is found nowhere else in the world (as noted in the State of the Natural Environment Report)—an obvious gap in the SSSI series and for which England holds entire global resource.
 - New and amended earth heritage SSSIs identified using the strategic rationale in the GCR—it is clear the contribution these sites make to the earth heritage SSSI series.
 - Lowland neutral grassland sites for which a recent strategic assessment has identified gaps in SSSI coverage—clear the contribution each site will make towards a sufficient SSSI series for the lowland neutral grassland habitat types.
 - Whole site denotification where SSSIs no longer contain features of special interest either due to natural change or as a result of lawful activities.

4.8 As work progress into 2010–11, our efforts should be focussed on:

1. Priority notification amendments needed to support delivery of the SSSI condition target, identified by the first regional reviews.
2. Priority notifications identified by the national analyses of straightforward groups.
3. Further new and amended earth heritage SSSIs.

4. Filling information gaps to allow progress on national analyses of SSSI coverage.
5. Embedding review of existing SSSI boundaries and features in the condition assessment and conservation objective processes.
6. Raising any proposals to review SSSI selection guidelines with JNCC.

4.9 From 2011–12 onwards, the remaining national analyses should be completed, regional reviews of existing sites will continue and annual notification programmes will be based on priorities arising from each strand. Any revisions to the SSSI selection guidelines will be led by JNCC.

Annex 2

BACKGROUND AND SUPPORTING INFORMATION

SITES OF SPECIAL SCIENTIFIC INTEREST: A DRAFT NOTIFICATION STRATEGY FOR ENGLAND

1. BACKGROUND

The SSSI notification provides Natural England with a statutory duty to notify land which in its opinion is of “special interest” by reason of its wildlife (habitats and species) or geology. However, the natural environment is dynamic, the nature of threats to it may change over time and our understanding of habitats, species and geology is constantly developing. Mindful of these facts, Parliament has also given Natural England powers to amend existing SSSI notifications, either by varying interest features, including additional land or both. Taken together, these powers and duties provide Natural England with a means of conserving areas that it considers to be of “special interest” by reason of their wildlife (habitats and species) or geology. Where land is not considered to be of special interest, Natural England also has a power of “denotification” to remove an existing notification from a SSSI, or any part of a SSSI.

There is no statutory purpose for SSSIs; however a general purpose is defined in government policy. Defra’s code of guidance states that:

“The purpose of SSSIs is to safeguard, for present and future generations, the diversity and geographic range of habitats, species, and geological and physiographical features, including the full range of natural and semi-natural ecosystems and of important geological and physiographical phenomena throughout England. The sites included within the series of SSSIs are intended collectively to comprise the full range of natural and semi-natural habitats and the most important geological and physiographical sites. The SSSI series should therefore include all of our most valuable nature conservation and earth heritage sites, selected on the basis of well-established and publicly available scientific criteria.”

SSSIs are the country’s very best wildlife and geological sites. They include some of our most spectacular and beautiful habitats. They are essential to preserve our remaining natural heritage that is under pressure from development, pollution, climate change and inappropriate land management practices. SSSI status is important since it provides a means of supporting habitats, plants and animals that find it more difficult to survive in the wider countryside, and in turn it protects a wide range of ecosystem services that will be crucial in adapting to and mitigating the effects of climate changes.

2. SELECTION OF SSSIs

SSSIs have been selected over a period of almost 60 years, and the approach has evolved and developed during that time. There are currently 4,115 SSSIs in England covering just over 1 million hectares, with around 26,000 owners and occupiers.

The Geological Conservation Review (GCR)

The objective of the earth science SSSI system is to identify and conserve a Great Britain-wide series of SSSIs for their “geology and physiography”. Each site within the series must have a special interest demonstrable at national or international level, either in its own right or by virtue of its contribution to a network of closely related sites. The special interest of the series is interpreted as the minimum number of sites needed to demonstrate our current understanding of the diversity and range of earth science features.

The GCR is maintained by the Joint Nature Conservation Committee (JNCC). The results are being published in a series of 45 volumes (the GCR Series) and in the GCR database. JNCC intends to carry out an ongoing incremental review of site coverage, consulting with experts in the geological community. This may result in proposals for new sites and suggestions for deletions. In parallel, sites are also identified by academic geologists and brought to the attention of Natural England (and the other country agencies).

Natural England may then propose addition of sites to the GCR, subject to the support of the Chief Scientists of the other two country agencies (CCW and SNH), since the GCR area of search is Great Britain-wide. New proposals are typically limited to sites identified for new GCR features, not additional sites for existing features.

The GCR provides a robust approach to the selection of earth heritage sites at the Great Britain level. It also provides for the network of sites to be updated to reflect increased scientific understanding, discovery of better examples of features or loss of existing sites. Natural England can have confidence that proposals for SSSIs that come forward from the GCR process represent a strategic approach to selection of earth heritage sites.

Biological sites

Selection of biological SSSIs has not generally benefited from such a structured rationale as used for the GCR. The JNCC is responsible for maintaining and updating the guidelines. The selection guidelines state that “biological interest” has long been understood to mean:

“...the wildlife value of an area to society for a broadly conceived range of cultural purposes which include science, but also educational, aesthetic, and inspirational values.”

The guidelines are clearly referring to what we now call “ecosystem services”, although this reference could be made more explicit and expanded to reflect our increased understanding of ecosystem services. So, we may consider the concept of biological special interest to have included both the intrinsic wildlife importance and also the value attached to the ecosystem services provided to society.

A consistent theme in the guidelines is that for those habitats and species which have suffered widespread loss, fragmentation and decline (such as most areas in the lowlands), all remaining natural and semi-natural examples have interest. In general, the rarer the habitat or the more threatened the remainder, the higher is the nature conservation value of what is left.

On the other hand, for the larger expanses of undeveloped habitat (such as in the uplands), it is considered important that a proportion of the total area is selected for SSSI notification, that is sufficient to represent the complete field of biological interest, in the event that all the rest should change or disappear. This has led to two main approaches to site selection:

- Minimum standards, generally apply to those habitats and species that are rarer and more threatened. All examples above a minimum qualitative and/or quantitative threshold are eligible for selection. Some habitats and most species groups are selected in this way (see table 1, below).
- Exemplar representation, in the case of the habitats and species that are still widespread. As the guidelines have evolved, fewer habitats and species groups are selected on this basis, although still a considerable proportion (see table 1, below).

Figure 1: Frequency of individual features within SSSIs

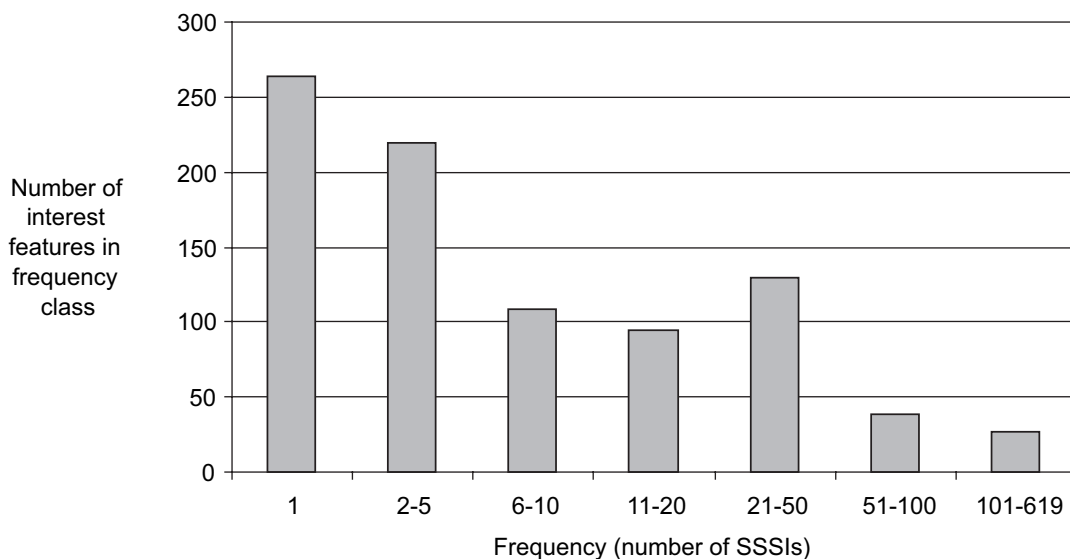


Table 1
DIFFERING APPROACHES TO BIOLOGICAL SSSI SELECTION

<i>Minimum standards:</i>	<i>Exemplar representation:</i>
— Saltmarshes (1989)	— sand dunes (1989)
— shingle beaches and structures (1989)	— sea cliffs and slopes (1989)
— lowland grasslands (1989)	— intertidal marine habitats (1996)
— heathlands (1989)	— saline lagoons (1996)
— lowland ditch systems (1989, revised 1997)	— woodlands (1989, revised 2006 for veteran trees)
— rare fen types (1989)	— non-montane rock habitats (1989)
— bogs (1994)	— standing waters (1989, revised 1997)
— more restricted upland habitats (1989)	— flowing waters (1989, revised 1997)
— vascular plants (1989)	— most fens (1989)
— non-vascular plants (1992)	— widespread upland habitats (1989)
— bats (1989)	— mammals (except bats) (1989, revised 2005 for water voles)
— most birds (1989)	— isolated breeding bird colonies (1989)
— reptiles and amphibians (1989)	— some freshwater and estuarine fish (1989, revised 1997)
— nationally rare freshwater and estuarine fish (1989, revised 1997)	— most butterflies (1989)
— invertebrates (1989)	
— the rarest butterflies (1989)	
— dragonflies (1989)	

3. CURRENT COVERAGE OF THE SSSI SERIES

There are 879 different interest features for which SSSIs have been notified. Of these, 260 interest features have only one site notified (see figure 1, above). The majority of these features are species. Some of these (such as Sussex emerald moth) are very rare species found at only a single site, which has been duly notified. Others (such as breeding mute swan) have been picked up under a different feature (in this case a wetland breeding bird assemblage) at a much larger number of sites—so, whilst only one site is notified for this species in its own right, there are over 150 SSSI with breeding bird assemblages that can include mute swan. Similarly, there are eight SSSI in England where breeding hen harriers are notified in their own right, but a further 36 sites where they may form part of an assemblage of upland breeding birds.

At the other end of the scale, the feature with the most sites selected (619) is the neutral grassland National Vegetation Classification (NVC) type MG5 crested dog's-tail *Cynosurus cristatus*—common knapweed *Centaurea nigra* grassland. This equates to almost one in seven of all SSSIs, yet this should not necessarily be considered sufficient. This grassland type is highly fragmented and exists in very small patches, generally less than 5 ha and often less than 1-2 ha. So, we still have only around 50% of the resource within SSSIs. (This is the type of habitat for which the selection guidelines advocate the selection of all remaining examples.) An analysis of the coverage of broad habitat types in the existing SSSI series reveals variation in the amount of the total resource contained within the SSSI series (see table 2, below). This variation may be due to application of exemplar v threshold guidelines, or may highlight a more fundamental gap in the series that needs further investigation.

Table 2
COVERAGE OF HABITATS (BASED ON THE CATEGORIES USED IN THE *STATE OF THE NATURAL ENVIRONMENT REPORT*)

<i>Habitat</i>	<i>England resource (ha)</i>	<i>Within SSSI</i>		<i>Within SSSI notified for this feature</i>		<i>Number of²⁵ corresponding SSSI notified features</i>
		<i>Area</i>	<i>%</i>	<i>Area</i>	<i>%</i>	
Blanket bog	255,308	176,140	69%	175,315	69%	7
Lowland raised bogs	10,227	8,949	88%	8,046	79%	
Broadleaved, mixed and yew woodland	510,292	82,797	16%	75,559	15%	22
Fen	21,927	19,533	89%	17,427	79%	52 ²⁶
Lowland acid grassland	12,202	7,305	60%	3,199	26%	16 ²⁷

²⁵ This column shows the complexity of the interest features; for example the habitat “blanket bog” is represented in the SSSI series by seven separate types (in this case NVC communities), each of which may require individual assessment of SSSI coverage.

²⁶ Includes all “fen, marsh and swamp” notified features.

²⁷ Includes upland acid grassland notified features.

<i>Habitat</i>	<i>England resource (ha)</i>	<i>Within SSSI</i>		<i>Within SSSI notified for this feature</i>		<i>Number of²⁸ corresponding SSSI notified features</i>
		<i>Area</i>	<i>%</i>	<i>Area</i>	<i>%</i>	
Lowland calcareous grassland	53,945	42,715	79%	42,501	79%	14
Upland calcareous grassland	12,293	8,485	69%	8,361	68%	
Lowland meadows	20,378	10,948	54%	10,307	51%	12
Upland hay meadows	2,024	1,470	73%	1,072	53%	
Lowland heathland	72,331	48,289	67%	46,428	64%	22
Upland heathland	243,929	179,912	74%	176,185	72%	
Maritime cliff and slope	14,545	8,484	58%	5,232	36%	9
Sand dunes	12,800	10,928	85%	10,553	82%	19

²⁸ This column shows the complexity of the interest features; for example the habitat “blanket bog” is represented in the SSSI series by seven separate types (in this case NVC communities), each of which may require individual assessment of SSSI coverage.