



HOUSE OF LORDS

SCIENCE AND TECHNOLOGY SELECT COMMITTEE **NERC centres and surveys: ownership and governance** **Oral and written evidence**

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Professor Duncan Wingham, Chief Executive, Natural Environment Research Council (NERC) – Oral evidence (QQ 1-11)

Evidence Session No. 1

Heard in Public

Questions 1 - 11

TUESDAY 21 JANUARY 2014

Members present

Lord Krebs (Chairman)
Lord Dixon-Smith
Baroness Hilton of Eggardon
Baroness Manningham-Buller
Lord Patel
Lord Peston
Lord Rees of Ludlow
Earl of Selborne
Baroness Sharp of Guildford
Lord Willis of Knaresborough
Lord Winston

Examination of Witness

Professor Duncan Wingham, Chief Executive, Natural Environment Research Council (NERC)

Q1 The Chairman: I would like to welcome our witness for this one-off session, which is concerned with the governance arrangements and ownership of the NERC research centres and surveys. In a moment I will invite our witness, Professor Wingham, to introduce himself for the record and make any brief opening statement, but please keep it brief because we would like to get straight into our questioning. So, over to you.

Professor Wingham: Thank you, my Lord. First of all, I am Duncan Wingham. I am the chief executive of the Natural Environment Research Council. I am a physicist by training and I have spent much of my scientific life working on ice sheets. I have been in post at NERC for two years. I am not sure that there is value in my making an opening statement. The questions that I was briefed with are laid out and I am quite happy to move on to that if you wish.

The Chairman: Thank you. I will kick off and in doing so will declare an interest in that I used to, as you know, occupy the post that you currently occupy as chief executive of NERC, so I have some familiarity with the kind of challenges that you face. Could you set out your stall by telling us why you have embarked on this review of the ownership and

governance of the British Geological Survey, the National Oceanography Centre, the National Centre for Atmospheric Science and the Centre for Ecology and Hydrology? What are the problems that you are trying to solve, why are the current arrangements not fit for purpose, and what benefits are you hoping to achieve by any change that might come about?

Professor Wingham: Thank you for offering me an opportunity to lay out what our thinking is and where we are in this process. It is not published yet but I think we are all aware that there is in any case the recommendation in the triennial review that NERC, along with the other research councils, should examine the ownership and governance of their centres. So, in a sense, we would be doing it any way. However it is absolutely the case that we have examined this on its own merits and have come to the view that we at least should examine the question in detail.

I think that the overriding issue is reasonably clear. We are, of course, aware that science has been relatively protected, at least in the CSR period, and in comparison with much of the public sector we are much better off. Let me just make that observation at the outset. Equally, we have not been real-terms protected, and in NERC not even in cash terms. If we look at the funding to those centres from around 2008 onwards and we make reasonable projections about what the range of likely settlements might be, going out, for example, to 2020, then according to the settlements that you judge, and if we simply left the system to act as it has been, we would be seeing real-terms declines in funding to these centres of the order of between 21% and 47% from 2008 out to 2020.¹ There are of course, elements of prediction to these numbers, and it depends on what view you take about settlements, but our view is that a responsible view is that if we simply go on as we are, then we will see ongoing declines of that magnitude over a period of decades.

The fundamental question for us is around sustainability. Do we take the view that we should simply let that happen—you could say a status quo position—or is it better for us to take the view that we wish to sustain these centres and see them maintained in real terms and, if so, how do we ensure that we place them in the best environment to enable that to happen? Council's view was that we should not simply pursue a policy of decline, that we should seek, as far as we were able, to enable our centres to maintain themselves. Clearly, the implication of that is that we will need them to seek broader and more diverse funding than is the case today.

That then leads to two issues, both of which bear on the question of ownership as opposed to the question of funding. The first is the question of whether the present arrangements best place our centres in a position to pursue that diversity and allow them to exploit it. Certainly, there are constraints about operations within the public sector. I think by far and away the most important of these are year-end constraints that impose a great deal of inflexibility on planning and on the ability of centres to invest.

The second issue, which I sometimes find harder to communicate, is risk. If we were to pursue a policy of maintaining the centres at real terms we would arrive, over a period of, say, a decade, at a situation where NERC was the minority funder. Indeed, with BGS we are almost at that point today. On the other hand, under the current arrangements we would be exposed to all the risk so that we would be increasingly exposed to the risk of a declining third-party income. That may sound a bit abstract but it is worth saying that, in NERC's history, that risk did materialise around Plymouth Marine Laboratory. The only insurance

¹ The figures I gave were slightly imprecise. The exact figures, and the associated percentage changes, are included in the supplementary information supplied with this corrected transcript.

that we have against risks of that kind are our own science funding lines. It seems to me that if we are planning to encourage and enable our centres to maintain themselves in real terms, we also have to understand how we will insulate ourselves or mitigate against that risk. I would observe that it is, in a sense, a sufficient criterion that if you changed the ownership status and moved them outside the public sector one would enable these organisations to have considerable flexibility, which they do not enjoy today, but would also enable them to build up reserves that would insulate their risk and insulate ours.

So there is, in our view, a clear reason to want to examine this question in detail. It is complex in detail and I am not in a position today to offer concrete solutions. None the less, in addition, I might add that it is not immediately clear that these things cannot be solved while retaining public ownership. The issue is around whether, if it were possible to resolve these issues while retaining public sector ownership, one would. We are working through all the issues associated with an ownership and governance change with a view to coming to firmer views about whether there are better alternatives to the present than exist today.

Q2 The Chairman: Could I ask a couple of follow-up points? First, do you see the problems and the opportunities as being equivalent across the four centres and surveys to which this review applies, or are there different problems for different institutions?

Professor Wingham: If we allow that the problem is just our concern about medium-term sustainability, I would say that concern is probably uniform to these centres. If you were to ask what I think about the opportunities—how these centres might respond to the challenge—that is different. It is a case-by-case question. I think that there are perhaps more obvious opportunities, for example, for BGS than might be the case for the other two wholly-owned centres. In consequence, I think it is likely, although I do not wish to presume on outcomes, that we would not necessarily come to the same view as to the optimal arrangement for each of the centres. This has to be examined in the light of their own business planning.

The Chairman: My second factual question is on when you talked about NERC becoming a minority funder. Can you give an indication of what proportion of the funding for the four organisations—BGS, the National Oceanography Centre, CEH and the National Centre for Atmospheric Science—comes from NERC at the moment and what proportion might come from NERC in the future?

Professor Wingham: I do not have exact numbers available but I am happy to provide them to you².

The Chairman: You can send us those.

Professor Wingham: But I think I can give you a qualitative picture. I would say at one extreme is BGS where, as I remarked, we are already more or less at the point of becoming a minority funder. Next in line would be CEH, sitting at around 40%. Next would be NOC, presently around about 30%. In NCAS's case, that number is already of the order of 50:50, but let me just observe that NCAS is already private in the sense that I am using the term, so the question with NCAS is somewhat different. It is whether there would be benefit in

² The 2012/13 figures are: BGS total income £ 42.6 M, of which NERC income is 56%; CEH £ 33.1 M of which NERC is 65%; NOC £ 43.3 M of which NERC 81%; NCAS £ 33.1 M of which NERC 83%. The NOC figures include £ 17 M for ship operations. Future projections for BGS, CEH and NOC are provided in the supplementary information. The large variance between my remark to the Committee and the actual NCAS figure was a mistake on my part: I was confusing the ratio of NCAS National Capability funding to total NERC funding with that of total funding to NERC funding.

Professor Duncan Wingham, Chief Executive, Natural Environment Research Council (NERC) – Oral evidence (QQ 1-11)

NCAS's case to give it an independent existence separate from the universities that currently form it. As I say, if you wanted exact numbers I would have to supply them.

The Chairman: That would be useful to us. Also—and I know this involves some modelling and assumptions—if you were able to project forward under the model that you described of a 27% to 48% decline in core funding, what percentage of the budgets might come from NERC under those models? I suppose one option would be that the institution itself declined in size so the proportion remains the same and another is that the institution remains roughly the same size and your proportion of funding shrinks down. It would be helpful for us to understand that, if that were possible.

Professor Wingham: Let me respond by saying that we can do that, and indeed we have done it. Of course, it requires making assumptions about what a future NERC council might do in a future funding scenario.

Q3 Lord Willis of Knaresborough: Could I declare my interest as a council member of NERC? I understand the issue that if NERC becomes a minority funder it still retains 100% of the risk or the majority of the risk, particularly in terms of national capability. Could you explain, if in fact it goes to a private sector arrangement, how NERC loses that national capability risk element?

Professor Wingham: The risk I am referring to is the risk that materialises if you get abrupt loss of funding.

Lord Willis of Knaresborough: Let me stop you there. I understand that. It is the question of the things that NERC does that nobody else can do that you still have, irrespective of whether it is a public sector or a private sector organisation, or is that not the case?

Professor Wingham: I would say that is the case. That is a different kind of risk, but I agree that that is independent I think.

Lord Willis of Knaresborough: That risk of the national capability of data sets and all the rest of it is an expensive one, is it not?

Professor Wingham: Maybe I could step back a little from that. As your questions that you laid out to me before indicate, in our own call for evidence there were a number of concerns raised about the possible transition from where we are now to private ownership. I think that one needs to first break down a little the types of activities that we are talking about and examine them to some extent piece by piece. In doing so, one starts to appreciate to some extent some of the complexities around this. If you will allow me, I would like to expand that a little bit. I can oversimplify, but broadly one might think about these risks in categories. For example, infrastructure, data and capability would be three areas that one could alight on.

If we take infrastructure—here I mean the kind of infrastructure that centres maintain on behalf of the wider community, rather than merely that infrastructure for their own purposes, such as ships, planes, core stores, for example—there are at least three aspects to that: ownership, operation and governance. Let me just touch on those.

If we look at ownership, our view is that there is no good reason to transfer it. We would seek to retain ownership, particularly of large capital assets, and/or long-lease arrangements that amount to ownership, which is the case, for example, today with one of our ships.

If you take operation, then that for me is simply a practical aspect: which is simply the most suitable operating arrangement; where is the balance of skills, is it sensible to build our own retained skill function versus an outsourced function? Today we operate a mixed model. If I take the FAAM aircraft for example, we own it but it is privately operated by BAE, because that just seems to be the most effective operation. If we take our ships, again we own them, but in this case they are operated by NOC, one of our own centres.

The third aspect is governance, by which I mean access to the infrastructure. Again I illustrate by example. If I look at the governance around our FAAM aircraft, which is a major facility, we have a committee of the Met Office, because we co-operate with the Met Office, which is a public body, and NCAS, which is one of our centres but is private, and [the committee's operation] is overseen in a light-touch kind of way by NERC itself. If we look at the governance around our ships, this is largely determined by NERC but supported by the operator, which in this case is the National Oceanography Centre. My main point about the question of access to infrastructure is that it is primarily a matter of governance as opposed to ownership.

If we turn to data, I think that first one has to recognise that NERC is not under any detailed or written requirements from government in the round as to what it provides. That is perhaps a weakness and is something that we intend to work on, but it is in fact the case today. We have very few legislative requirements on us and the best known of these, which is counting seals, we actually outsource to a private organisation, St Andrews. The current set-up with regard to data is not the result of an ownership issue. It is essentially the result of NERC's own funding decisions that it prioritises the sustaining of data centres. It is also the result of NERC's own policies on transparency of access.

In the data space, I would first make the observation to you that the current arrangements are not the result directly of ownership. They are the result of funding and policy. In addition, we do not distinguish in our funding and policy with respect to data between whether the organisation is public or private. We have exactly the same constraints on, for example, the Plymouth Marine Laboratory, which is private, and universities, which are all private, as we do on our own centres.

My other observation is that it is worth bearing in mind in respect of rights to data, or indeed any other public asset, that we, just like anybody else, are bound by state aid rules. You are not allowed to give a publicly funded asset to a private organisation on which it makes profit if the access to that publicly funded asset, in this case data, is not uniformly available to everyone. You would be immediately in contravention of state aid rules if you were to do so. We simply would rule out any operating model that got us into that situation, on state aid grounds if no others, although we obviously have different grounds.

Capacity for me relates directly back to sustainability; the smaller the object the less capacity that it has. I think capacity has more than one aspect and I will touch on two. One is the provision of routine advice to particularly government departments. Again, there is no explicit understanding, at least in writing, between NERC and government departments as to the scope of that advice or when it should be given. The reason that people have arrived at a situation where they rely on the centres for advice—I again observe that we have a mixed model—is just because of their existence and their form. Government departments know they are there, they know who to go to and know that they will respond responsibly to requests for advice. The other aspect one can point to is emergency capability; if there is an emergency requirement of some kind or another, will this institute provide for it? This is related to capacity. I would observe, for example, that the emergency around the Icelandic

volcano—whose name, you will forgive me, I do not know how to pronounce—was led by a scrambling of the FAAM aircraft by the NCAS centre and led to our understanding that the dust content was considerably less than feared.

Both those aspects are around capacity, and I think capacity is also just about sustainability, in other words it is much more related to funding a mission than it is to ownership.

Finally, with regard to skills, certainly it was raised in our call for evidence—I am going to be slightly crude: “Will you just convert all these folk to job shopping people and thereby lose excellence?”. First, let us observe that we are already running mixed models, as I have already observed, so the centres are running staff complements that have to match their funding diversity and that is mandatory for any organisation. So we are already running a variety of skills within our centres and if we lose capacity we will lose the skills.

In the round, this is how we are thinking about the various aspects of national capability and the extent to which they do or do not relate to ownership. I think it is important not to confuse funding on the one hand with ownership on the other. To summarise those remarks, at the end your question 2 you have written, “How will you ensure that any changes do not undermine these twin imperatives?”—that is, of securing essential national capability and expertise and access to data. We are going through a process where we are examining detailed alternative arrangements and I would flip this round to you and say that we will not contemplate alternative arrangements that would undermine those imperatives. NERC has no interest in doing that, any more than anybody else has. Any models that we may arrive at—again, I would just observe that until we arrive at specific models we cannot really trade them off with the current situation—would have to satisfy those imperatives or we would not really be interested in adopting them.

Q4 Baroness Manningham-Buller: I wonder if you can help me with something where I did not really understand the logic of what you said. I thought you said that if the centres became independent in whatever governance arrangement, it would be easier for them to attract external funding. Apart from the end-of-year flexibility, you said that it would be easier for them to attract external funding, but it is clear from what you subsequently said that they already have substantial amounts of external funding, so why can they not continue to attract external funding under the status quo? I did not understand that logic.

Professor Wingham: First, I do not think I am arguing that they would necessarily be in a better place to attract funding. I think that is about their business planning—their ability to decide where there may be opportunities and to try to ensure that they have a skills base that may match to it. Secondly, I agree that being able to do this is not related to whether they are in the public sector or independent. I agree with you. It is not a black and white issue. The issue is whether the present arrangement best equips them to move flexibly, to be able, for example, to judge what are appropriate promotion and salary criteria to enable them to build up reserves that would allow them to take advantage of opportunities as they arise. The issue is not that we cannot do something in the present state and we can do something in an altered state. The issue is which is the optimal arrangement.

Lord Rees of Ludlow: Just to clarify a bit more the points you have raised about why the status quo is not acceptable, you said that it is a problem that you cannot carry over a budget from one year to the next. You also said there was a problem of not being able to have flexible salaries. Those are government rules that are having a negative impact. If those rules did not exist, would you still think there were any other reasons for changing the status quo—if the Treasury rules changed and if you could have slightly more flexibility?

Professor Wingham: I have to distinguish slightly my answer from council's [in that I should not presume on their view]. My answer would be no. I take this opportunity to observe that we are creating what we have called a reference panel, for something to call it, of fairly senior representation across Whitehall so that we can identify and discuss and agree with, to the extent that is possible, the concerns of various parts of government—BIS, Defra, DECC, the Cabinet Office and, we hope, the Treasury—as well as some independent members, including Lord Selborne.

The reason I point that out is that, as I observed before, if the issues we would like to get resolved could be resolved by transferring to independence, that would be a sufficient criterion, but it is not immediately obvious to me today that it is a necessary one. If it were possible for us to reach an arrangement, which at this point in time I imagine would be some combination of Cabinet Office and Treasury, that would allow the issues that I have raised, which in some senses come down to very simple criteria such as to allow the centres to have bank accounts, while retaining public ownership, my view would be that we do not need to go any further.

Lord Rees of Ludlow: That would cause far less hassle and disruption than what you are going to have to go through.

Professor Wingham: I absolutely agree with this. Clearly part of the process we are going through now is to test that with those who are in a position to tell us the answer.

The Chairman: To pick up on that, if, as you have indicated to Lord Rees, relaxing Treasury rules on carryover and salary flexibility would in a sense diminish the case for privatisation, it still would not impact upon your very first point, which is that under financial projections into the future, NERC's funding for these organisations will go down by an amount between 21% and 47% between 2008 and 2020. That remains a core issue. I am trying to get my mind around to what extent that budgetary constraint is the driver, whether it is the flexibility that we have just been discussing with Lord Rees, or whether it is mission, entrepreneurship and so on. There seem to be different drivers coming into the mix here and I am not quite clear which, if any, is the primary one.

Professor Wingham: There clearly are a number of issues related to this, and I could add more. Just to illustrate this, I think it is likely that we will be under considerable pressure to reduce the number of administrative staff we use to run our operation. It is easy to argue that were one to transfer the ownership status it may be simpler to reduce that. For example, if we take salaries, our own information is that our centres are dropping behind, particularly at the top end. It is fairly clear that they are. The question though is whether these other things of themselves are sufficient to want to make the change, just to come back to Lord Rees's remark. I think my answer to the question of whether these other issues are sufficient to warrant the change is – it is a judgment, is it not – probably no.

The issue of sustainability in the medium term does seem to me the overriding concern and I think needs responsible management to look at that question, decide how to respond to it and decide what is the best thing to do about it. Somebody, not me, was observing of both their own organisation and NERC that, as he put it, "We may have a burning deck but you have a smouldering one". That seemed to me a good metaphor and it is this issue over the medium term. That is the issue that I think we have to attend to and for which it is then asking this question about changes of ownership or status. It is sufficiently important to want to really address this issue clearly.

Q5 Lord Rees of Ludlow: You are predicating all this on the assumption of a big decline in BIS funding in the next five years, but if there is not going to be a detrimental cutback in what these institutes do, the total amount being spent is not going to go down, is it? It is just going to be removed from your responsibility or from the Government. It is not going to save the country money in any sense.

Professor Wingham: When you say “it” is not going to—

Lord Rees of Ludlow: If the valuable functions of these institutes are to continue and they are to sustain their expertise, it costs a certain amount of money. If one is going to continue them, that money is going to come from somewhere. It will not come from BIS but it is going to come from somewhere else, so as far as the country is concerned it is not going to save anything.

Professor Wingham: I agree with you. First of all, one can always question projections into the future. In fact, our range is flat cash, which we regard as probably the most optimistic scenario that one could imagine, where you hope for the best and plan for the worst sort of thing. We have also looked at what would happen if the ring-fence was lifted and we placed ourselves alongside the rest of the public sector. That is the range that we have been looking at. Again, I think it is important, and we are in the process of doing this, to try to identify much more clearly than is the case today what proportion of our NC funding maps to a number of these things that people regard as essential national capability. It is worth observing to you that the proportion of the totality of NC funding that achieves that is smaller than you might think and it is less than half; the expenditure, for example, on data centres and infrastructure. We also are looking at how much we spend on what we describe as public good activity, which I would roughly summarise as activities that are not primarily driven by excellent science but by a recognition of the need to service a wider community. If you add all that lot up, you are still talking about less than the total of the NC funding. To the extent that we reach agreement with the parties and make explicit as to what really are those essential elements, what are those things that need protecting, I would observe that in this decade, or picture I am painting, that there is plenty of margin in there to ensure that these essential things continue.

Q6 The Chairman: I am going to turn to Lord Peston, who would like to come in, but I shall just follow that up. To take one example—I will not name one because it will then become invidious—suppose you had a centre that at the moment has 600 staff and an estimate is that, say, half of that capacity is concerned with maintaining national capability, curating data and making sure that infrastructure is available to the wider community, and the other half is essentially chasing money to keep itself going through applying for various grants and other external sources, would it be an alternative to solve your problem of the budget squeeze to say, “We will keep them as they are but halve their size so that they just do the core functions”? All the other stuff is simply keeping itself going; staff are chasing money to keep themselves employed but they are just doing consultancy. It is not doing anything useful to add to national capability and it is not really NERC’s job. Would that be another model, to divide these organisations into what is core, that NERC should look after, and what is consultancy, that can go and find its own way in the private sector, just become private consultants?

Professor Wingham: You could consider such a model, but I would make two observations. The first is that I do not accept that picture as a reasonable one of our centres today. If I come back to the observation I was making—from memory but I think I am right—something a little under 50% of our total NC portfolio is for these things that I could roughly

encapsulate as services. The other 50% is science.³ Moreover, we have recently, I think for the first time, externally reviewed in a REF-like fashion, the outcome of the science from our centres and we have determined that it is as good as the universities we fund, up to and including the top end. There are some local exceptions but that is broadly the picture.

What characterises the science that is performed at the centres? I think people often routinely remark that it is long-term, but for me a rather important aspect of it is that it is large-scale, physically. One has the capacity to examine the global ocean. If we look at CEH, it is the only organisation in the country that is really concerned with the ecology, at least on a national scale and larger. I know that people may argue with me over this but I am not convinced that, for example, there is any university setup that competes with that kind of thing.

I would observe to you that at present there are three sets of activities performed by our centres. One is the service activity, one is the scientific activity, which today is the bulk of their activity—bear in mind too that our centres are bidding into our competitive lines as well and they do pretty well—and the third suite of activities is this activity that is more for under contract to other organisations. They are more similar in their business models to universities than might first be apparent, because the only thing that universities do not really do in that set of three is the first.

You could move to the kind of setup you are describing but I think there would be a loss and we would lose this capability of ambitious large-scale science. Bear in mind too that in the last decade NERC has moved to placing this science not only on an open competing basis but on moving to a situation where many of our science programmes attempt to bring the best of the nation together in order to solve a given problem and find the best combination of our centre scientists and university scientists. I think most people agree this has been pretty effective. I think there would be a national loss on the science side if we were to move to the kind of model you are describing.

Lord Peston: May I ask you to clarify something you said, quite a while back I am afraid? Under the present arrangements the bodies under your aegis like BGS, NOC and so on, insofar as they generate datasets, which you have financed using public money, those datasets must be made available publicly. Is that right and that is a matter of principle, and they could not be made available in a narrower sense privately to any private enterprise?

Professor Wingham: No.

Lord Peston: Are you saying that under the possible—and this is all putative, is it not—arrangements for ownership, insofar as the same bodies but they might now be privately owned but their work is publicly financed, which I think might be the model you are talking about, the same datasets generated must be publicly available? Is that the model you are asking us to think about? They would be privately owned but insofar as they are publicly financed then they must be publicly available. Is that the model? I accept that nothing is decided so this is putative, but is that what we are to understand?

Professor Wingham: My answer to your question is yes, that is the model. Let me add one layer of detail here. The way we operate is that we run data centres, six at present, and it is a condition of any of our funding, be it to our owned objects or private objects—NCAS or universities or Plymouth Marine Laboratory—that any data that arises from the work we fund is placed inside those data centres in any case. The access to our data is provided as a

³ More exact figures for 14/15 are £ 51 M for 'services' and £ 44 M for 'science'.

service by our data centres. I see no reason why that would change. There is no reason to alter that situation simply because some of the organisations are no longer owned by us, which is the case today. The other observation I would make is that you would straightforwardly fall foul of state aid rules if you had an organisation that had privileged access to public data from which to make profit. That is not to say that you cannot make profit from public data. You may, but the access to it must be uniform to all parties.

Q7 Lord Peston: Could I ask a supplementary on that, revealing my ignorance even more? Imagine a non-profit-making body in the private sector, like a university, the researchers in this field. It uses the public sector dataset, which is what I will call it, and it builds a new dataset on that basis. It is under no obligation, as I see it, to make their net addition, their net gain, publicly available, or would not have to be. Is that right?

Professor Wingham: That is my understanding. To illustrate, for example, BGS has a wholly owned subsidiary called BGSI, which is a profit-making entity, and it does make use of the public data that BGS holds. In BGS it is mandatory, to avoid state aid difficulties, that any other organisation of a similar kind, at least in Europe, has to have the same right of access to the data.

Q8 Lord Dixon-Smith: I want to step back and look at the wider perspective for a minute. How much of the work that we are doing is in competition with research from other nations? If the world is moving increasingly towards open access to the results of research, presumably there is an advantage in getting there first, but is there international co-operation on who does what in the research field? I am sorry, I am a complete layman and I am not familiar with the way this works. There must be some international aspects of this that are quite significant.

Professor Wingham: The answer to your question is, of course, yes and no. Science by its nature is competitive and so if one makes the whole thing too collegiate one perhaps loses one's cutting edge. In the NERC space, my observation is that there is an enormous sharing internationally of assets. A very good example in recent years has been the NERC investment in determining the overturning circulation of the north Atlantic. That would have been impossible for us to achieve on our own and has primarily been a bilateral in terms of assets and infrastructure, between ourselves and the US and some Scandinavian nations. We are seeing very welcome signs in Antarctica, for example, that there is a greater recognition that the challenges of Antarctica cannot be answered by a single nation's assets and that we need to move together. Interestingly, I think that is because we have discovered that the largest changes are occurring in locations with the least claim. In assets, just because of the sheer scale of the problems that we face and their international nature, in the NERC space there is a great deal of international collaboration.

On the data side, that is also the case. To an extent, people do not really recognise there is enormous pooling of environmental data. The very high quality representations of the atmosphere that are produced by the European centre for medium forecasting depend on environmental observations that are made by very many nations. All of the activities around the earth rotation service, our ability to locate satellites with great accuracy, on which a great deal of science depends I might add, is all done by international pooling of data. I might sound a bit parochial but I think it is probably fair to say that the environmental sciences are probably more used to and better at the pooling internationally of data than some other subjects. This is quite clearly because of the global nature of our challenge. Equally, we wish

to sustain UK science as well and if it is a situation where we think we can win in a competitive environment we would.

Q9 Baroness Sharp of Guildford: Could you tell us to what extent you have taken note of the lessons that have been learned from changing the governance of other public sector establishments? In particular, I think you put a lot of emphasis on the stability in the medium term. How far are there lessons to be learned from those PSREs that have already moved? For example, I know that those who are working at the NPL feel that it has been quite a successful experiment but equally the Government seem determined to change their terms now and move it on to another set of institutional frameworks, so I am not sure that that necessarily is a good lesson in terms of the medium-term stability. Have you looked at these other models and what do you think are the strengths and weaknesses of these other models?

Professor Wingham: We have been looking at a number of different organisations that have gone through this transition, to understand what has been the impact on the organisation and what resulted in any given case in either success or what one might describe as perhaps less success. We have been looking, first of all, within the research councils themselves. It is perhaps worth saying that in a sense NERC started because we transited the Plymouth Marine Laboratory and the Scottish Association for Marine Sciences probably a decade or more ago. We learned some lessons from that process, which I can return to. STFC, for example, has very successfully, and I think most people agree, made its campuses joint ventures in Harwell and Daresbury, although that is not something that seems to immediately lend itself to the NERC situation.

MRC has transferred recently a number of its units embedded in universities into the universities. NERC has had experience of that inasmuch as when it first set up the then Southampton Oceanography Centre the intention was that this would be something taken over and absorbed into the university. The general view is that that was not a satisfactory arrangement and in the end NERC took it back and created the National Oceanography Centre. I think the lesson there, which I agree with, is that that model of moving things into universities is not appropriate for our centres. I think the skills mix and the range of activities does not match itself to the way in which universities organise and think about their staff. BBSRC has transferred a number of its units recently, essentially using the same CLG model that NERC used for the Plymouth Marine Laboratory, and to date, at least, those seem to have been successful transitions. It is always the case that the more detail you look at the more differentiation you see because things always end up special. For example, issues of land ownership can impact.

We have looked wider, and you mentioned the National Physical Laboratory. It is not my responsibility so I have to be a little bit careful about what I say. I think the view is that outsourcing the operation of a whole laboratory, which is what it did, was successful from the point of view of what, in this case, Serco was asked to do, but my understanding is that the general view is that it did not help NPL contribute to its scientific mission, and if I understand properly this is the objective in the latest round of moving it out. On the other hand, my understanding—and it is my understanding—is that the motive for wanting to move NPL out is not dissimilar to ours. It is about medium-term sustainability.

We have looked at other objects. For example, I have been to talk to LGC—it used to be the Office of the Government Chemist—which is regarded as a successful privatisation. Our purpose there was not because we necessarily think that LGC is an appropriate model for any of our centres but we wanted to understand the impact on the organisation of a full

commercialisation. We have also looked at examples of what might be termed less successful transitions. I do not really want to name names, because I will get myself into trouble. It is fair to say that when you look at the ones that are less successful, one often sees that there were very particular issues around the transition.

You can pull out some generics. The first is that if the reason for the change is an acute funding crisis and/or an overambitious business plan—it is funny how they often go together—then changing ownership does not solve anything. If you have an acute funding problem it is better to admit to it in the first place than use an ownership change to produce the same outcome. That is my first observation. The second observation is that one can see other examples where the difficulty was a cultural lack of appreciation of risk. I observed earlier that the public sector does not insure risk but it does disperse it. Our centres' present risk is dispersed in us and our risk is dispersed in BIS. I will probably get myself into trouble with the Permanent Secretary now, but I am sure you understand what I mean when I talk about that. You have a culture where people are not used to the risk being local. If you move an organisation out, there have certainly been cases where risks have materialised, for example contracts have been accepted without understanding the commercial risk on them and then the organisation has got into difficulty.

Looking at this, there is the obvious question that if you do this you have to make sure they are financially stable in the short term, but to be honest if you do not do that well—but I think more importantly what it shows is the need to also concentrate on the post-transition governance framework. What I mean by that is simply because an organisation is not owned by us does not mean we do not have a right to examine their financial stability, to look at their financial governance, to look at the responsibility with which it is being planned or not. Here I would use the example of the universities. These are private organisations but they are recipients of public funding in such a way that the Government does require them to explain how their finances are being used and to convince Government that they are responsible in their business planning. My summary about this question of mitigating the risk of transition is that it focuses on what will be the post-governance arrangements on the NERC side.

Baroness Sharp of Guildford: Have you considered international models?

Professor Wingham: The difficulty with international models is that all countries arrange their scientific deckchairs in rather different ways, largely for historical reasons. The way in which different countries fund their institutions is quite different. The Helmholtz laboratories, for example, are a very different context from our centres.

I could comment though on your question in a slightly different way. I think it is a commonly held view that there is no national framework for PSREs, and one hears this quite often. One hears it from David Willetts among others. In fact this is easy to say but may be very difficult to actually come to, because the trouble with the phrase PSRE is that it covers a very wide range of organisations, many of which have extremely different purposes in life. It may be much harder to achieve than to desire. The other observation I would make at the national level is that having an overarching framework will not answer to the sustainability problem. That is primarily a question of looking at the funding out into the future and not larger issues around national organisation, unless it is matched with the corresponding funding.

Q10 Lord Rees of Ludlow: Just following that last remark, one special feature of the NERC institutions is that they gather long-term data where it is important to continue in the same methodology for a long time. You have already addressed, in answer to Lord Peston,

Professor Duncan Wingham, Chief Executive, Natural Environment Research Council (NERC) – Oral evidence (QQ 1-11)

that the existing data will be freely available, whatever happens, but what about the assurance that the data will be gathered in future so that we really do have a long timeline? Clearly there is always a tension between this long-term service work and doing the kind of work that universities want, which is short-term research. There have been a number of concerns expressed in the consultation, as you know, about the continuation of the long-term data gathering that is so important.

Professor Wingham: I agree that the tension is there, although I would not use the distinction between the service element on the one hand and what the universities want on the other. I come back to my observation that long-term, large-scale science is in some ways the most important science that we do, but equally I would observe to you that my own view is that that is not at all related to ownership. That is absolutely a funding question. It is a hardy perennial of NERC and will continue to be.

Lord Rees of Ludlow: The obligation to continue some of these events.

Professor Wingham: Of course we are talking about the future so we can take our view, but what I would observe to you—I come back to the observation that there is very little written requirement on NERC—is the fact that NERC has been a very good parent of these datasets for 40 or 50 years. That is not because there is explicit requirement on us to do it. It is because successive chief executives and councils have recognised the need to continue and sustain those observations for scientific and wider purposes. I do not see why that would change.

The Chairman: Picking up on Lord Rees’s point, the Royal Society said in their submission, “Fully privatised institutes are poor vehicles for sustaining long-term strategic research and their record for sustaining a long-term mission is poor”. Picking up on Baroness Sharp’s question on what are the lessons learned from other privatisations, that is the Royal Society’s conclusion. Do you agree with that?

Professor Wingham: I guess it depends a bit on what the “fully” means in the sentence, but if we understand “fully” there to mean transition to a fully commercial operation—and LGC would be a good example of a successful transition—I think LGC itself would agree, and certainly in our discussion with it, it is a fair summary to say that the skills mix and the type of employee it has and the role that it is fulfilling today are very different from the roles and skills it had when it was the Office of the Government Chemist. I do not want to presume, but I just cannot see that we would come and propose a fully privatised model for sustaining our centres. It does not seem appropriate purely because of the emphasis in fully commercial activities on the need to find customers and sell them things. I think LGC itself, at least my understanding of the conversations I had with it, if it were here would make this observation to you. It is also very clear about the implications of change for its staff that was necessary for it to make that transition from a wholly publicly owned lab to a fully commercialised operation.

But again I do not wish to rule things out and there are many halfway houses between full public ownership and fully privatised. We should not overlook that there may be parts of the activities of our centres that do lend themselves to a more aggressive commercial attitude, and if that is possible and we think that it stacks up, we would not want to preclude it.

Q11 Lord Willis of Knaresborough: I have two brief points. You mentioned that the Helmholtz centres in Germany had very similar problems and the Minister, David Willetts, seems to be particularly keen on Helmholtz as an example to look at. First, is NERC doing anything to actively pursue that as a model? Secondly, following on from Lord Rees’s

questions, what is NERC actively doing to ask Treasury whether the rules can be changed? It has done it for schools, throughout the health service and a whole host of other public sector bodies. Surely it is not a big step. Will that be the first thing you do before pursuing any of the other options?

Professor Wingham: With regard to your first question, just to be clear I think what I said was that David himself has expressed concerns about the lack of a national policy. I do not know that I would go as far as to say that he is—perhaps you should ask him that. NERC is not in a position to pursue a national policy for PSREs and we would probably get into somewhat difficult territory if we did because it would effectively mean we are trying to pursue a policy involving a number of PSREs that are in separate Departments and have different functions. My firm view is that if there is a view that there should be greater national policy towards PSREs that clearly does not lie with NERC.

Lord Willis of Knaresborough: Should we talk about that with the other chief executives of the research councils?

Professor Wingham: Yes, but even that is only a proportion of the range. On Helmholtz itself, I am not particularly a fan. If we look at the current set-up of our centres—certainly if I look at NOC or CEH—in these terms, they are only part Helmholtz. If we did go to a Helmholtz-type model, our centres would not fit it very well. I am not sure that I am convinced by that.

Your second question is what are we actively doing? As I say, I observed this Whitehall reference panel that we have created. I think there are a number of tasks that we have to work through with that panel. One of them quite clearly is to get a much clearer definition of what are the Government's broadly painted expectations, requirements and desires, so that we get a much firmer view of what is meant when DECC uses the expression "national interest". We have to get to the detail in order to understand what framework is appropriate to ensuring it. Alongside that though is exactly the question you have raised, which is why we have Cabinet Office there and why we have, we hope I should say, the Treasury. I do not think we will do these things in series though. I think we will do them in parallel, simply because we can address more than one question at one time.

The other observation I would make is that even if we do not in the end transfer our centres, some of this exercise is tremendously important and helpful to NERC and the Department. If we arrive at a much clearer understanding of what are these requirements or desires or expectations, that will help us and them. There is benefit in doing this in addition to this particular issue.

The Chairman: Thank you very much indeed. We have run out of time, but I appreciate very much your comments to us and responses to our questions. There is one item that you agreed to follow up in writing, which was the percentage of funding into the centres now and in the future. Otherwise, we wish you good luck with your review and we will await the recommendations with great interest. You may wish to come back to us at that point.

Professor Wingham: Thank you, and I will be very happy to come back.

Natural Environment Research Council (NERC) – Supplementary written evidence

Real Terms Analysis of Centre Income

The Analysis uses actual data from FY 2008/9 to 2012/13. From 2013/14 onwards, forecast data has been used to determine external income totals. The NERC funding figures for FY 2013/14 onwards have been forecast using scenario analysis, representing the likely upper and lower limits of possibility.

The analysis shows the percentage change in actual NERC funding in 2008/9 and NERC Funding forecast in 2020/1. These percentages indicate that the overall % reduction in NERC funding varies from Centre to Centre. This is due to the reduction in actual NERC funding up to 2012/13, and is not a result of forecasted reductions for future years.

Scenario A – High

This Scenario envisages public funding for scientific research remaining ring-fenced at flat cash in both the short term and in the next Comprehensive Spending Review. This is a plausible upper estimate given the Government's stated on-going commitment to science.

Under this scenario, there is a constant cash settlement over the period in question. This has led to a reduction in income in real terms as these figures have been restated using the treasury GDP deflators, adjusting income to 2012/13 prices in line with inflation.

Scenario B – Low

This Scenario posits a one-off reduction of £7m in total NERC funding in 2014/15 followed by similar in 2015-16 as the first part of an assumed 20 per cent reduction in the cash settlement across the years to 2019/20. This scenario assumes that Science is no longer protected and so receives a reduction in line with the average for unprotected spending.

For the purposes of this analysis, from FY 2014/15 onwards, it has been assumed that the income for each Centre will remain at the same proportion of total NERC funding as that forecast in FY 2013/14. Again, these figures have been restated in line with treasury GDP guidelines, adjusting income to 2012/13 prices in line with inflation.

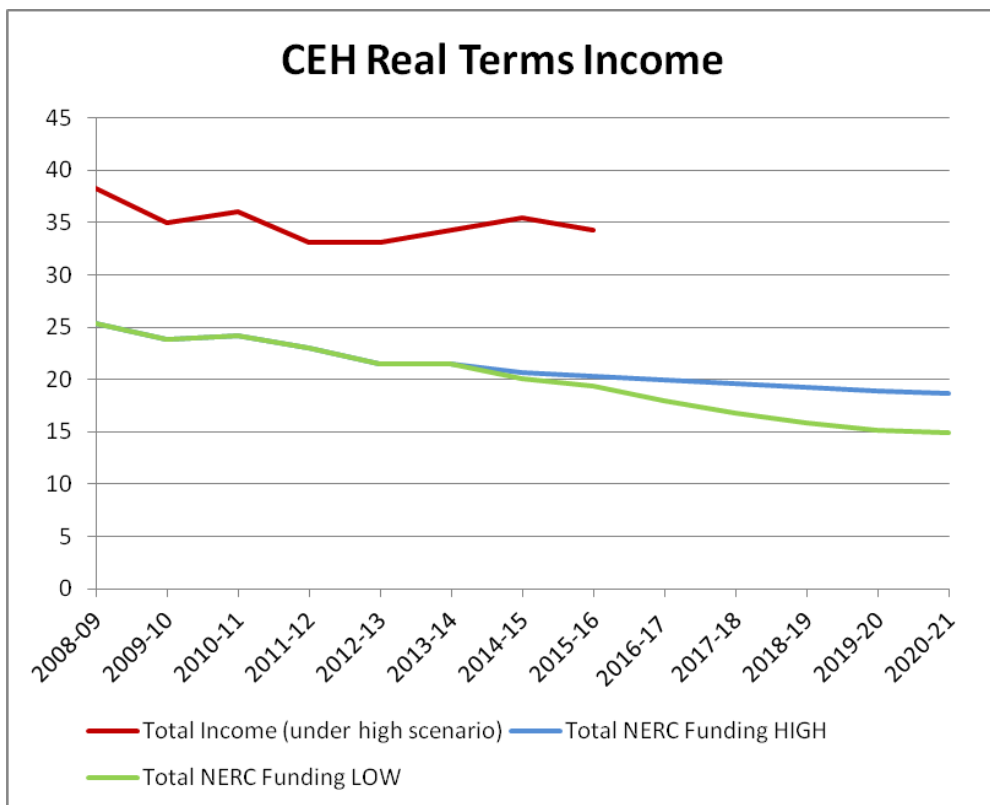
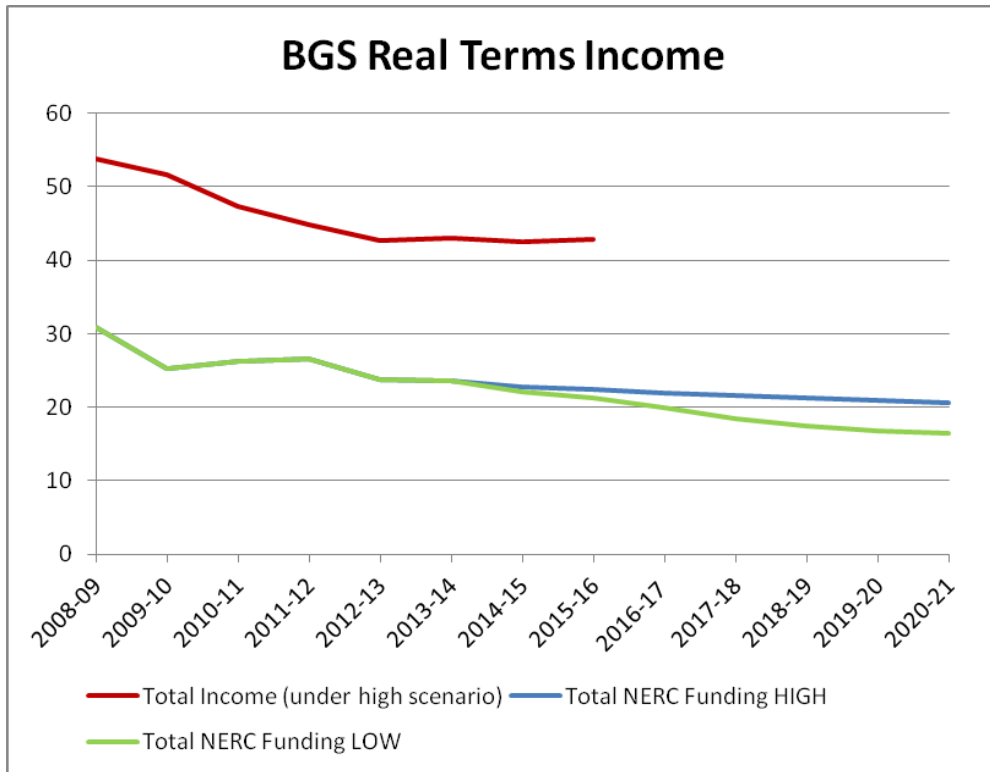
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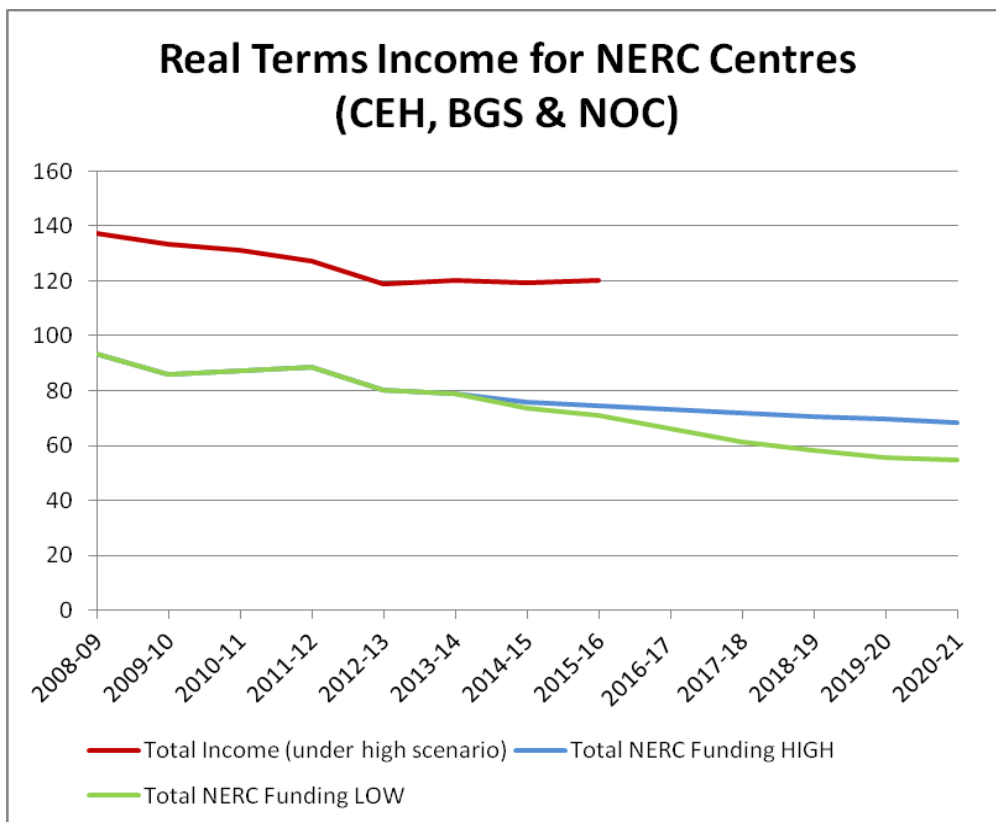
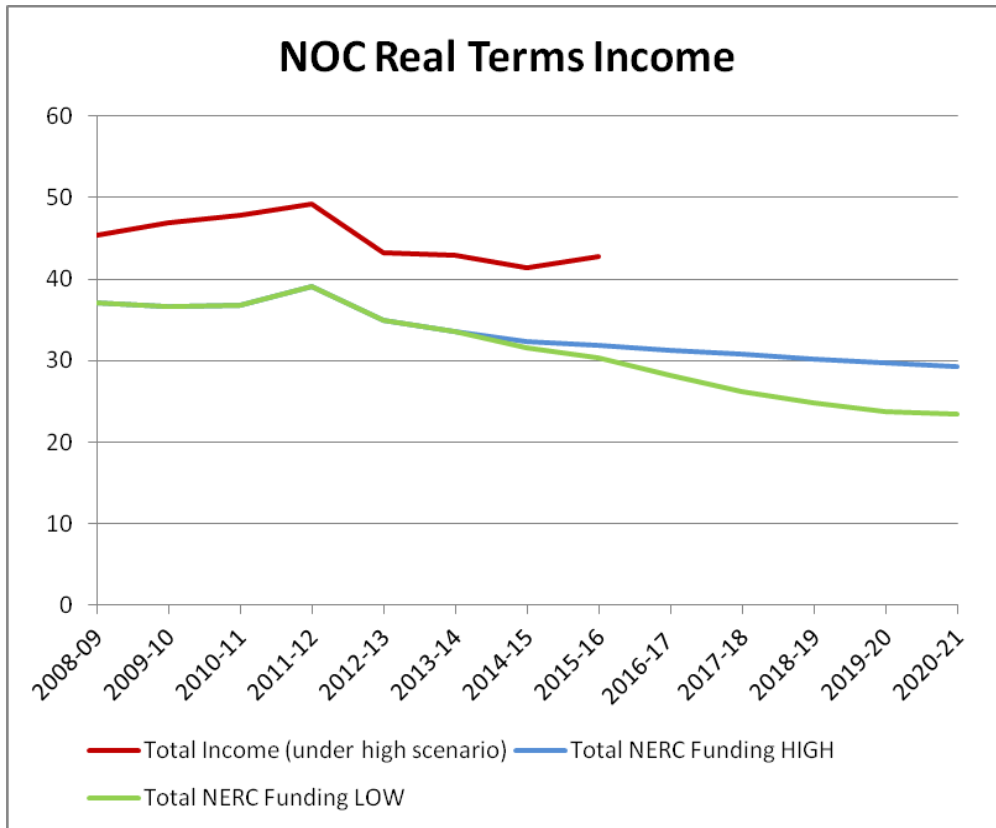
Actual NERC Funding 2012/13 as a proportion of Total Income

	2012-13	
	£m	% total income
NERC Funding	-	
BGS	23.8	56%
CEH	21.5	65%
NOC	34.9	81%
NCAS	25.7	83%
Total NERC Funding	80.2	64%
Income from other sources	-	
BGS	18.8	44%
CEH	11.6	35%
NOC	8.4	19%
NCAS	5.3	17%
Total External Income	44.2	36%
Total Income		
BGS	42.6	
CEH	33.1	
NOC	43.3	
NCAS	31.1	
Total Income	124.3	

Scenario Income % change

£m	Low scenario			High scenario		
	2008-09	2020-21	% change	2008-09	2020-21	% change
BGS	30.8	16.5	-47%	30.8	20.6	-33%
CEH	25.4	14.9	-41%	25.4	18.6	-27%
NOC	37.0	23.4	-37%	37.0	29.2	-21%
Total	93.2	54.8	-41%	93.2	68.4	-27%





Notes: All costs shown at 2012/13 prices

Real Term Income by Centre

British Geological Society														
£m	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	% reduction 2008-2021
Total NERC Funding LOW	31	25	26	27	24	24	22	21	20	18	18	17	16	-47%
Total NERC Funding HIGH	31	25	26	27	24	24	23	22	22	22	21	21	21	-33%
Other Income	23	26	21	18	19	19	20	21	Unknown	Unknown	Unknown	Unknown	Unknown	
Total Income (under high scenario)	54	52	47	45	43	43	43	43						

Centre for Ecology and Hydrology														
£m	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	% reduction 2008-2021
Total NERC Funding LOW	25	24	24	23	21	21	20	19	18	17	16	15	15	-41%
Total NERC Funding HIGH	25	24	24	23	21	21	21	20	20	20	19	19	19	-27%
Other Income	13	11	12	10	12	13	15	14	Unknown	Unknown	Unknown	Unknown	Unknown	
Total Income (under high scenario)	38	35	36	33	33	34	35	34						

National Oceanographic Centre														
£m	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	% reduction 2008-2021
Total NERC Funding LOW	37	37	37	39	35	34	32	30	28	26	25	24	23	-37%
Total NERC Funding HIGH	37	37	37	39	35	34	32	32	31	31	30	30	29	-21%
Other Income	8	10	11	10	8	9	9	11	Unknown	Unknown	Unknown	Unknown	Unknown	
Total Income (under high scenario)	45	47	48	49	43	43	41	43						

Natural Environment Research Council (NERC) – Supplementary written evidence

TOTAL														
£m	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	% reduction 2008-2021
Total NERC Funding LOW	93	86	87	89	80	79	74	71	66	62	58	56	55	-41%
Total NERC Funding HIGH	93	86	87	89	80	79	76	75	73	72	71	70	68	-27%
Other Income	44	48	44	38	39	42	44	46	Unknown	Unknown	Unknown	Unknown	Unknown	
Total Income (under high scenario)	138	134	131	127	119	120	119	120						