

Public Accounts Committee

Oral evidence: Redevelopment of Defra's animal health infrastructure, HC 42

Wednesday 13 July 2022

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Members present: Dame Meg Hillier (Chair); Olivia Blake; Kate Green; Antony Higginbotham; Angela Richardson; Nick Smith.

Environment, Food and Rural Affairs Committee member also present: Dr Neil Hudson.

Gareth Davies, Comptroller & Auditor General, NAO and Marius Gallaher, Alternate Treasury Officer of Accounts, were in attendance.

Questions 1 to 78

Witnesses

I: Tamara Finkelstein, Permanent Secretary, Defra; David Holdsworth, Chief Executive, APHA; Colin Dingwall, SRO, SCAH Programme, APHA; Sarah Homer, SCAH Programme Sponsor, APHA; Christine Middlemiss, UK Chief Veterinary Officer.

Report by the Comptroller and Auditor General

Improving the UK's science capability for managing animal diseases (HC 64)

Examination of witnesses

Witnesses: Tamara Finkelstein, David Holdsworth, Colin Dingwall, Sarah Homer and Christine Middlemiss.

Q1 Chair: Welcome to the Public Accounts Committee on Wednesday 13 July 2022. Today, we are looking at the responsibility of Defra in terms of its animal health infrastructure. This is relating to the centre at Weybridge, which deals with animal and plant health matters. It is a major site, but it has lacked capital investment over many years and is now at a critical stage. It is a very focused area of work for the Department and the Committee. The repercussions of this not going well are very significant for all of us. If you think back to the days of foot and mouth, this is the centre



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that played a key part in that, packed full of top Government scientists, doing amazing work on behalf of the British public.

We are pleased to welcome our witnesses in front of us today to talk about the plan to improve this infrastructure. Tamara Finkelstein is the Permanent Secretary at the Department for Environment, Food and Rural Affairs. We are delighted to welcome Christine Middlemiss, who is the UK Chief Veterinary Officer. I think it is your first time in front of this Committee, so welcome to you, Dr Middlemiss. David Holdsworth is the chief executive of the Animal and Plant Health Agency. Colin Dingwall is the senior responsible officer for the Science Capability in Animal Health programme at the agency, and Sarah Homer, who is the programme sponsor for the Science Capability in Animal Health programme. There are lots of long titles. As you answer questions, you may want to explain a little bit about exactly what those roles are.

Before we go fully into the main session, Ms Finkelstein, as Permanent Secretary, you have been set to model reductions in your own workforce. This is a pretty critical area of work, very specialised. When you are looking at that modelling—that is 20%, 30% and 40% reduction in headcount of civil servants in your Department—are you looking at any differential approach to how you might manage this at the Weybridge centre?

Tamara Finkelstein: In looking at that approach, we are generally looking at where our priority areas, risks and frontline activity are. That is influencing the returns we have given on that work. We are early in that. We have modelled some of those reductions and expect to get into a conversation about them.

Whatever resources we have, we will look at how we use that for our priority areas and high-risk areas. This is very high on our risk register and is on our major programmes portfolio. We are currently constraining our recruitment and looking at where there are critical posts. This is very much an area where we have identified critical posts.



Q2 Chair: We will come on to some of the staffing issues, though we are mainly looking at the infrastructure today.

One concern—and the NAO’s Report highlights it very effectively—is that there has been a lack of a long-term strategy for managing this physical infrastructure. It has been deteriorating over some years. It might be helpful at this point to bring in the chief vet, Dr Middlemiss, to explain what the significance of not investing in this could be. What are the risks over the next four or five years? It is a very small window to get the work done. If it is not done, what will the impact be on the public and public health?

Christine Middlemiss: As you are probably aware, we continue to see a number of ongoing notifiable disease outbreaks. We have just had our largest avian flu outbreak that we have ever done. We have coped very well with that, but it means that we have to deprioritise other work, because we scale up the amount of testing that is required to confirm disease and, importantly, to get back to disease freedom, in terms of surveillance. It puts pressure on that.

You will be aware, and we saw it with Covid, that there are a large number of new and emerging infections, often zoonotic infections. Those are infections that spread from animals to people. We have seen an increasing number of those over the last 10 years. There was the original SARS, MERS, Zika, Covid and a number of other issues. We need to have resilient, flexible facilities, because we are the first line in investigating what role animals are playing in the spread of a new and emerging disease. What actions do they need to take?

It is really critical to that initial decision-making in a disease outbreak, for getting back to country freedom when you have had a notifiable disease and, importantly, for trade purposes. It is not just about when you have a disease. It is about that assurance and verification that you have ongoing systems to detect disease. We have 49 animal-related reference laboratories at APHA. They are providing confirmation to trade partners that that animal, that consignment, that carcass or whatever has been tested with an international test and it is what it says it is. Increasingly with global trade, we do testing for things. That is an increasing requirement.

All these activities are really important. It is important to have contemporary facilities that we can use flexibly to prioritise the greatest threats.

Q3 Chair: I am going to come back to you in a moment. Ms Finkelstein, that sets it out for people who are not so much aware. Weybridge does not mean much to most people in this context, in ordinary terms. There is a real risk, is there not, if this fails? How big is the risk of failure at this site without this investment? You say it is high up your risk register, but perhaps you could explain that a bit more.



Tamara Finkelstein: It is as Dr Middlemiss says. Our ability to not just manage an outbreak, but manage concurrent outbreaks and do some of the underlying, ongoing work that we do would be compromised if we do not take action. There are actions that we take of a sort of “patch and mend” variety, but it is not enough, so we have to do the critical works. We have to get the facilities management in the right place so it is ongoing, looked after, and we have to do this major programme that will give us these long-term flexible lab facilities that are necessary for where we know disease is going in future. It is a major risk if we do not do this.

Q4 **Chair:** It is a major risk that is at a critical stage now. You have not been in post all this time. Why do you think that it has been left to get to this state before the full programme has finally started on it?

Tamara Finkelstein: There have been stages. We had not been managing it properly, as a critical asset. We had been patching and mending, as I say, but not looking at it in the whole. We then had a facilities management contract for the whole of the Defra group. It was not that suitable for a science facility, so that worsened the position.

With a number of instances that happened, we gripped that in 2015, with a number of recommendations to us about how we should do so. At that point, we had been investing, first, in those critical works. That was the focus 2015 to 2017. In doing that work, the recognition was that it is not just about getting what we have got mended. It is about looking in a much more strategic way at what we need further down the line. Then, from 2017, we have been building this programme. It takes time to build the right sort of programme to deliver the future facilities.

We are now investing in the critical works and doing that better. We have improved the facilities management contract and we are going into a new facilities management contract for 2024, which will properly take account of the sort of facility this is. We have this major programme to do these big science hubs within the Weybridge site.

Q5 **Chair:** Mr Holdsworth, day to day, you are responsible for this. It is a huge worry to the nation. What is the likelihood of failure at Weybridge without this investment—well, with this investment, but it is not there yet, or if you do not get the money from the Treasury?

David Holdsworth: I am clear that I have inherited a site with significant challenges. We are carrying on the work there. We have worked with the Health and Safety Executive to put workarounds in place where necessary. As the Permanent Secretary said, if we do not invest now, if we do not put the investment in there, the risk of compromise to the UK’s capability in this space increases the longer we delay and the longer we do not invest in the site.

Q6 **Chair:** What contingency plans do you have in place if there is a failure? You have other sites, so perhaps lay out why Weybridge is particularly important.



David Holdsworth: We have regional laboratories. However, the containment facilities at Weybridge and the level of containment we are allowed to do is what is special about Weybridge. It is not just about the buildings. Weybridge has been there for decades, so the expertise in people at the site is just as important as the buildings. For me, for the APHA to be able to do its work, buildings and people are both important.

Q7 **Chair:** If there was a failure at Weybridge, what would the impact be on managing this?

David Holdsworth: It would depend on the type of failure. We have incidents that occur, whether they be power outages or containment challenges. We have plans in place across all those and they are agreed with the Health and Safety Executive.

If you are asking about our capability as an agency to do the work that is tasked to us by Defra, we can do that at the moment. We have workarounds, as I have said, with HSE. That means that it is less efficient, it is more costly and the risk increases. We have to be tighter on the monitoring, tighter on the oversight and apply more resources in some of those areas that are higher risk than we would do if the buildings were more modern and fit for purpose.

Q8 **Chair:** Perhaps, Dr Middlemiss, you can tell us what you think the consequence of a big strategic failure at Weybridge would be.

Christine Middlemiss: We prioritise, as we have been doing, on the most significant notifiable diseases, those that we know are on our doorstep. We are constantly doing horizon scanning to understand what is likely to get here. We would prioritise and focus on those and deprioritise some of the other work and other testing, for example, in the TB space and things. Those are important, but of a different priority order.

There is some testing that could go out to the regional labs, absolutely, but not all of it, because they do not have the same level of containment. We work closely with Pirbright, funded by UKRI, and there is some possible exchange of testing. Usually, Weybridge is the surge capacity for Pirbright and the other way round. We would look at doing that. Inevitably, we could not do all the work that we are looking to do on a day-to-day basis. It would be about prioritising for the really significant threats.

Q9 **Chair:** You have a small window to deliver this in. I am not sure if Mr Dingwall or Ms Homer want to pick up on this. You have a big challenge to get this delivered and get the business case across the line. Do you want to outline to us what your biggest risks are, as you see it now? Obviously the NAO has laid it out, but do you want to put some colour to that for us?

Colin Dingwall: I will answer and Ms Homer might want to come in. I am the senior responsible owner for the programme. In that capacity, I report to Sarah, who is the chief operating officer responsible for Defra group property.



Probably the principal risk that we have is delivering this change programme in a site that is a live operational site. It is a space-constrained site and, as you have heard already in the NAO Report, there are quite a lot of challenges with the assets on the site. That creates quite a risky environment to implement within.

In terms of addressing that, we have done quite detailed building surveys. In fact, from later on this year, and it picks up on one of the helpful recommendations from the NAO, we have a campus management plan and an asset management strategy that are going to be coming into place. They help us understand how we have to treat the different buildings that are used for different purposes. We know which buildings are going to be expired within the next five years. We know which buildings are going to expire within 10 to 15 years, how much investment we need to put in to keep them going and those assets that we can run for longer than that.

The transformation programme is based on a detailed understanding of where the vulnerabilities are in different parts of the site. We will develop the programme in that knowledge, specifically so that Christine and David are able to carry on running the business-as-usual capability.

Q10 Chair: Ms Finkelstein, this is potentially a spend-to-save opportunity, if you want to pitch it to the Treasury like that. The Treasury never quite hears that. There has not been proper investment in this site for a long time. I asked you before, but perhaps you could be a bit clearer, a bit more candid, about why you think it dropped down the list of priorities in the Department to get to the point where it is now in quite a critical phase, with only four or five years to get this over the line.

Tamara Finkelstein: We had a period in the 2000s in which we had identified critical works. Some critical works were done and then there was not funding for other elements of the work we would have liked to do. As I say, there was the move in 2009 to the new facilities management contract that was not suitable for a science site. We did not have enough of an intelligent client function to spot that and recognise what we needed to do ourselves.

To some extent, it was triggered by an incident in 2014 where Interserve, the facilities management company at the time, was fined for what occurred at that point. That triggered recommendations that were picked up as to the need to make some of those changes.

Q11 Chair: Sorry to interrupt. That triggered the action, but it was lack of investment over years that led to that in the first place. My question is, to go back to it again, why you think that it dropped down the list of priorities. It is on your risk register, which we will come to in a moment, but it was not very high up, was it?

Tamara Finkelstein: Some of that was about the organisation and how we were looking at it as a property, so partly looking at it just as a property and not, as we are now, in a much wider sense of the science capability



and all the elements that go with it. That was true at the time. It was a contract that did not look at it as a science site, which has extra elements that meant that we were getting behind on really critical works.

It is hard to quite unpick the history, but we have learned a great deal from that. It is about these different elements that we need to do, the facilities management, the critical works, and this longer-term approach, and making that not just about transforming a building but about how we do our science and the digital transformation that goes with it. We have built into our facilities management a much bigger intelligent client function that you need to manage that sort of contract. We have learned those things, which are now getting in place.

Q12 Chair: The facilities management contract is mentioned by the NAO. It was interesting that a Department as diverse as yours had the same one-size-fits-all for this as for some of the other areas of facilities management. Can you explain to us why that was?

Tamara Finkelstein: As ever with these things, it is hard to completely know, but we were looking to consolidate a whole load of contracts and make some savings. That can sometimes mean doing things much more effectively. Across our office estate, that made a big difference. There were saving and improvements.

Q13 Chair: One priority drove that.

Tamara Finkelstein: Yes, and it was not suitable for science. As I say, we also missed thinking through what that means we need on the intelligence client side at that point.

Chair: I want to welcome Neil Hudson MP, who is guesting on our Committee today from the EFRA Select Committee. I need to invite him to declare his interest to the Committee.

Dr Hudson: Thank you for having me. I am on the EFRA Select Committee, but I am a veterinary surgeon, a fellow of the Royal College of Veterinary Surgeons, so declare a very strong professional interest, and a constituency interest in terms of Cumbria and its history with the impact of massive disease outbreaks such as foot and mouth.

Chair: Thank you very much, Dr Hudson. It is a pleasure to have you on the Committee today.

Q14 Olivia Blake: I would like to dig more into the risk elements of this, if that is alright. I would first like to ask a bit more about how regular current risk failures are at the site and the regularity of the failures that you briefly mentioned in your answer.

David Holdsworth: I do not have figures to hand on that, but I am happy to write back to the Committee on any detail, unless Ms Homer has any figures with her.



Sarah Homer: I am afraid that I do not have specific figures. We have not had any serious notifiable risks in the last few years. The most notable one in recent times was the generator failure in 2014, which was related to the Interserve contract. We manage risk very closely on site. We have risk management plans across the APHA environment, the SCAH programme and in the critical works and property management space.

All that comes together at the science facilities joint management board, which is co-chaired by James Greenway, who is our director of property, and Jenny Stewart, who is the director of science and transformation. We manage all those risks in that one board and make sure that the potential competing priorities across the different interests get balanced and we have a really tight regime.

Q15 **Olivia Blake:** How likely do you think it could be for there to be a major significant failure? I know that you have highlighted that there are big risks, but how likely do you think it is that one of those could come to fruition before the programme starts?

Sarah Homer: We would see that as a high likelihood. That is the way it is reflected on our risk register. That is why it is so important that we carry on the pace and progress around the programme. The mitigations that we have put in place include the critical works programme, which the Permanent Secretary has referred to. We have investment of £250 million between 2015 and 2025. We have been maintaining the profile of delivery of those critical works. Even through the pandemic last year, we only dropped £8 million against our forecast spend. Given the challenges that we had, with not being able to bring people on site and the restrictions, we felt that that was quite positive.

We also have plans around our incinerator repair and replacement, which is a critical piece of equipment on site. We have upgrade works happening at the moment. We expect to have two incinerators being able to work independently by 2025, which gives us a better resilience than we have had to this point. Then we are bringing on a new incinerator, which will be complete by 2030. That is one area that we see as a high risk of failure, which we are dealing with as quickly as we can. We are putting in resilience as soon as we can and we of course have back-up contingency on that one.

Colin Dingwall: From the point of view of the SCAH programme and the activity, I mentioned—

Chair: For the benefit of everyone listening, the SCAH programme sounds like you are slashing somebody. Spell it out perhaps.

Colin Dingwall: It is the Science Capability in Animal Health programme. Essentially, it is the longer-term redevelopment of the site. The building surveys I mentioned earlier on are specifically our attempt to head off those risks happening.



Without getting too technical, the biotechnology building is riddled with asbestos. We had assumed that it could be used more over the next 15 years than it can be. It is going to be taken out of service more quickly. All the investment Sarah is describing has been pointed at the bits where we think the risk is greater, but Sarah is absolutely right that the risk of it occurring is pretty high.

Q16 Olivia Blake: In the Report, it refers to your own analysis of the state of the buildings. It highlights that 18% of the estate might be at risk of a serious incident and 41% needed imminent repairs. With the programmes you have outlined, how much have those percentages decreased, or is it pretty stable? Is patch and mend literally patch and mend? Does that make sense?

Colin Dingwall: The view is broadly stable. There are two critical things that have changed that are relevant for operations on site and the redevelopment. One is the building 1, which is the biotechnology building that we now know we cannot use in the way that we planned. The other, more positive one is that the Stewart Stockman Building, which is one of the bigger buildings involved in outbreak response, is in better condition than we thought it was. We had previously assumed that we had to do a lot of work at the earlier stages of the programme. We are now currently replanning that to the back end of the programme. In some areas we are getting better news. In other areas we are having to face up to more difficult choices.

Q17 Olivia Blake: With the joint management programme, do you think that that is fleet of foot enough to keep up with the changing information that you are receiving around the risks of the various buildings and sites?

Colin Dingwall: It is getting there. The Report draws this out as an area for us to develop. I would personally agree. We have the governance structure that Sarah describes. It is bedding in. We have a really good joint health and safety arrangement across APHA, SCAH and Defra group property. We have an excellent leadership team there, but we are still developing the systems and processes that give us the insight and intelligence to be able to pre-empt rather than respond reactively. As Ms Finkelstein outlined, that is probably one of the key changes we are trying to make with this, to be less on the back foot and more pre-empting of the things we think we need to deal with.

Q18 Olivia Blake: Ms Finkelstein, do you feel that you have enough assurance that any mitigations—I would like to know a bit more about the mitigations actually—that are in place are functioning well and working? How do you get oversight of what needs reviewing within those mitigations?

Tamara Finkelstein: In the board and on our executive committee, we look at the risk and the mitigations around it. Clearly, a number of things sit with Mr Holdsworth to have the responsibility for ensuring that the contingencies and so on are in place. We talk about that and gain some assurance of that. It is that problem that we face, that dealing with any of



these incidents diverts from some of the important underlying work that we are doing and gets us behind. It is also very frustrating for the scientists we have there, who are actually the key resource in all this, not the buildings. Keeping and retaining the best people, doing the best work, is a thing we also are very conscious of and I seek to get assurance on.

Sarah Homer: I wanted to come in to follow up on what Ms Finkelstein has said. In terms of assurance, she referred earlier to the intelligent client function, which was very small prior to 2016. We had under five people in that function, which is not substantial enough to manage a site of that complexity. We now have 23 people in that intelligent client function and we are planning for that to increase to 46 next year.

Included in that is our head of facilities management, who is a qualified engineer with a specialism in containment and actually came to us from the MoD. In terms of assurance and technical expertise, we have really beefed up the team and we are continuing to do that. That means that we are able to stay far better on top of what is likely to fail, whether the critical and reactive works are being done on time, challenging Interserve and Mitie on delivery of their contract. Also, it is making sure that we have that engineering insight, which we did not always have before, about what actually needs to be done on site.

Q19 **Olivia Blake:** The Chair asked a little bit about this, in terms of backup for capacity. Before I get to that, is there an issue around containment specifically that is more difficult to manage, in terms of risk, that you are more concerned about at all? Is it pretty level with all the risks that you are facing? It sounds like there are many, so I am imagining how you prioritise one that might be higher risk in eventuality.

Sarah Homer: I will start off, and then Mr Holdsworth will probably want to come in as well. Clearly, we have particular requirements around the containment facilities that we have on site. The generator failure in 2014 was a case in point, where backup generators failed and there was power outage to some of the high-containment environments on site, which meant that there could have been a risk of an escape of a pathogen. That was not the case; nothing escaped, and, fortunately, no people were injured in that incident.

That was a really good example where that triggered a far more systemic view of how we were managing the risks on site. As Ms Finkelstein has said, that then prompted us: "We need to look at doing something across the whole site. We need to look at further investment and radical change to the leadership of property and facilities management on site", which is what we have done.

David Holdsworth: It is important to point out that, if it is not safe, we do not do it. If there is a building that is at that high level of risk, we will take it out of commission. That is why we have a number of buildings out



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of commission at the moment. If there is a laboratory for which we cannot work with the Health and Safety Executive to find a safe deviation from the processes, we will take it out.

The big risk that we manage day to day is the capacity. As we have said, outbreak takes priority, but the really important work we do is the horizon scanning and research; it is that that we have to pause when capacity becomes an issue.

There are seven workstreams and programmes at the moment. There are 129 milestones. Of those, we have had to move 36% to the right because of challenges with capacity and diverting capacity in the labs to meet outbreak requirements. The bigger risk is our longer-term research, which is really important for keeping disease out, identifying it quickly and containing it if we find it.

Q20 Olivia Blake: That is very informative. Dr Middlemiss, especially around that research point, do you feel that there is any access to machinery that can only be happening on that site? Do the regional labs have the right kind of plant and equipment for that research side?

Christine Middlemiss: As we have said, the regional labs do not have the same containment levels. We have two different types of containment. We have what is called SAPO for animals and they are graded 1 to 3 on how significant and important the pathogen is. Then we have ACDP. That is the human ones and it goes 1 to 4 with that. That is about how safe the buildings are for the people, the animals and the environment. You may have negative pressure and things, for example, in some buildings. You do not have those in regional facilities.

It is very rare that we need to go to level 3 and we do not have level 4 at Weybridge. In fact, there is only one facility in the UK that has that and it is very small. For example, if we had a foot and mouth outbreak of significant scale for which we were testing tens of thousands of samples, Weybridge would be our capacity to build up to thousands, with Pirbright doing the confirmatory testing. If it was not possible to use a SAPO lab, that would be really difficult. We would still be confirming disease, but we would take much longer to do the surveillance samples in order to get back to disease freedom and say, "This area is free of disease and things".

For human ACDP ones, as I said, we only have one category 4, and that is often when new diseases, monkeypox for example, come along. They often start off at level 4. Because the current facility is small, we do not have somewhere we can do that research in live animals, in animal models, which is really important. For example, there is a virus in Australia, Hendra virus, that goes from fruit bats to horses to people, potentially. We would not have anywhere to keep animals and people safely to do testing on horses to understand any links here.



It is not necessarily just about the risks of the buildings now. It is about what we are going to need in the future, the containment levels we are building to and our appetite to be able to provide the evidence and the science answers for the future policy questions on public health and animal health management.

Q21 Olivia Blake: That kind of answers one of my questions about capacity. I wondered if the Department has an interim “panic” document for, if something went significantly wrong, what you would do around capacity to make sure that all these potential hazards are adequately investigated by your Department.

David Holdsworth: We have planning in place. I have a specific planning department whose sole job is to plan for disease outbreak. That was used and rolled out during the latest avian influenza outbreak, which, as Dr Middlemiss said earlier, is the largest we have ever experienced in the UK in history. The plans are there. They are deployable. We report in and publish our capability assessments on a regular basis.

A greater outbreak level poses a greater level of challenge to us. For example, we are currently assessing the latest avian influenza outbreak. We think that it will hit category 3 because of the scale under it. We have been able to cope, just, but by reducing our research programmes, slowing them down and impacting them. We have handled category 3 recently. Once it gets beyond that, the risks become greater as to our ability to handle.

Q22 Olivia Blake: I want to know how flexible those plans are with a failure at the site. If there was a further significant failure at the site, would those plans still hold?

David Holdsworth: It depends on the type of failure. They are as robust as they can be with the facilities we have. We partner, as Dr Middlemiss has said, with Pirbright and other institutions. We prioritise keeping available the high containment space, which only we have. We use other spaces for the lower containment areas. We look at how we share the capacity and balance the risk with the available facilities we have.

Q23 Chair: Where are the level 4 human facilities? You said you did not have it at Weybridge, Ms Middlemiss, so where is it? You have one in the country.

David Holdsworth: Yes, we do not have ACDP 4.

Christine Middlemiss: It is Porton Down.

Chair: I thought it probably was, but just for the record.



Q24 Olivia Blake: That is a very important point. I want to go back to the research point, because I am not quite sure I got across what I was hoping for. Containment is not just about stopping stuff getting out; it is also about stopping stuff getting in. If you are prioritising where that research is not happening and you have a lower-level containment lab where stuff gets in and disrupts the research, is there a significant risk in that element that will be hindered by the lower down labs not being able to do the work that they need to do, in terms of research?

David Holdsworth: I will talk about the operational capacity and then Dr Middlemiss can come in on the risks and threats. As I said, at the moment we have those seven programmes ongoing. They have been impacted. In terms of examples of what those programmes are, we have one on Newcastle disease and looking into that. We have flu futures, which is looking at understanding the diverse spectrum of influenza virus-based threats to the UK. They have been impacted by this. They are examples. We look at how we can reprioritise and how we can mitigate the impact, which we are doing in those cases.

As we have said, the scale of outbreak will determine the capacity we need to divert. That is a benefit of the APHA model. By having the research capability there that is then able to deploy into an outbreak, we develop the skills we need for outbreak. Also, it is a cost-effective way of doing it. You could not have thousands of people on standby just waiting for an outbreak. The model we have is effective and efficient financially, but also the research allows us to develop the skills that are absolutely necessary for effective outbreak management and containment.

Christine Middlemiss: We have talked quite a lot about the people. We can move some of the testing, but you also require people with the key skills. We have worked on sharing those skills across different groups of people. The standard and quality of our experts is high, such that it is about key teams of people who are not necessarily easy to move with their work.

Q25 Dr Hudson: I wanted to explore our resilience now, the importance of this site and what the implications are if there is a failure. Perhaps it is useful to this Committee and the people watching this to realise the impact of major disease outbreaks. Again, I declare a professional interest as a vet. I was deployed in the field in the frontline in 2001 in foot and mouth. There were sights that I never want to see again.

I am going to put my first line of questioning to Professor Middlemiss. Could you outline to the Committee the importance of this institution, by telling us how serious an infectious disease outbreak is, such as foot and mouth? The NAO's Reports documented about £3 billion worth to the public sector and £5 billion to the private sector, but the impact is probably unquantifiable.



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On the EFRA Select Committee, we are currently doing an inquiry on rural mental health. We are taking evidence. Certainly in Cumbria and other severely affected parts of the country, there is a legacy of this, in terms of the mental health impacts to communities. I do not think you can quantify that. Perhaps you could give us some perspective of what it means to the country, people and animals when we get a major disease outbreak such as foot and mouth, or heaven forbid, in the future, African swine fever or African horse sickness.

Christine Middlemiss: While foot and mouth disease and African swine fever are animal diseases, they are not zoonotic diseases. They have what I would call a one-health impact, because, as you say, they affect the animals. The animals are infected and often the only way to deal with that may be culling them. We culled millions of animals in foot and mouth disease. Every animal has an owner and that owner is absolutely affected by the impact of that. As we saw, there were mental health impacts in 2001. Interestingly enough, with the suspect foot and mouth disease we had several weeks ago, when I put in place the temporary control zone, it was noticeable that, in the media and on Twitter, people were remembering 2001 and that huge impact it had for them.

Weybridge and the experts there play a massive role in that because they are, right from that very initial suspicion of disease, standing up testing, understanding what is going on farm, providing expert advice to me and the other decision-makers to get that balance of confirmation of disease control, restrictions, culling, whatever the effective measures are, in order to get the balance right between control of disease and understanding the impact.

For example, in the avian flu outbreak we have just had, the real-time science on whole genome sequencing allowed us to change how we did surveillance, which had reduced resource impact, but also reduced impact and less hassle for people on the ground who kept birds, but I still got the information I needed. African swine fever is in the EU; it is in Europe. We are at medium risk for incursion from it at the moment, with a high risk of a human mediated pathway.



Q26 **Chair:** For those of us who are not scientists, such as me, could you explain what a human-mediated pathway is?

Christine Middlemiss: It is people bringing it in, basically. It moves in two ways, usually. Wild boar, particularly, spread it. We have a few of them, but they are unlikely to swim as far as the channel and get over here. It will be people bringing in infected products that would bring it and those get fed back to pigs.

Trade in pig meat from this country will be stopped. People will not want to trade with us initially until they see where the disease is and that we have it under control. Then we may start to regionalise trade from areas when I can assure and guarantee that parts of the country are free. There is a huge amount of testing, surveillance and intelligence that goes into giving the confidence that this area is free and that area is not. For our pig industry, particularly at the moment, that would be absolutely devastating.

With the foot and mouth suspect a couple of weeks ago, I had an email from the Taiwanese chief veterinary officer, saying it was handled well: "Your transparency was welcome". Trade partners really notice and I cannot describe how critical the facilities to do things quickly, effectively and right, with the expertise, are to getting those initial decisions right.

Q27 **Dr Hudson:** You mentioned the scare a few weeks ago and I can very much back that up—the trigger factor that that led to in the veterinary community and the farming community. Fortunately, it was negative. Can you outline to us how resilient we are if we got positive cases of something like foot and mouth, in terms of that? Yes, we are talking today about what developments Weybridge needs moving forward. Now, today, if that had been a positive case, potentially in pigs, and we know that pigs multiply the virus and spread it very quickly, would we be able to cope, this minute, with that?

Christine Middlemiss: We have lots of other structures. We learned lots of lessons from 2001. There are lots of things like standstill, so that is with people buying new animals on to farms. They cannot move any off for a time. We have lots of controls in place, identification and traceability for sheep and things, that we are further investing in that would give us a much better handle on, more quickly, where disease is. Again, the absolute freedom and being able demonstrate that is about the testing.

For example, in HPAI so far, we have tested over 20,000 kept birds. We have tested over 10,000 wild birds, which give us an indication of where in the country pockets of disease are picking up.

We scale outbreaks from 1 to 5, 5 being concurrent diseases—tens of outbreaks of each of those. Our outbreak readiness board considers that level 3 is about our capability at the moment, and that has been demonstrated by the large avian flu outbreak, but with the impacts on



business as usual work. If we had two diseases of that size, it would be a big struggle.

Q28 Dr Hudson: You have said, Mr Holdsworth, that you would prioritise outbreaks. You have said that that would take priority, but then it takes effort away from peripheral surveillance, research and that side of things and then potentially dropping your guard in other areas.

As you have said, Professor Middlemiss, we have been fighting avian influenza. If we got one or two other incursions of different diseases, you would prioritise the outbreaks. Is the resilience there in the institution? Are people hanging on by their fingertips? We need to know that. The public need to know that, because that then helps Defra make the case to Treasury: "We need this money and we need it quickly". Are we hanging on by our fingertips?

David Holdsworth: The scale of the latest outbreak has challenged us. As Christine said, we have coped. We have delivered, but that has delayed research projects. You are absolutely right: the research we do is important. There is the antimicrobial resistance work that we do. APHA reported the first case of transferable resistance to the antibiotic tigecycline, which is really important. It is a last line of defence antibiotic for humans. Although the work that is done there is animal based, it is the link between animal and human health, as Dr Middlemiss has set out. We have to minimise any delays and impacts in that space, because there are real-world consequences.

Yes, we have coped with the latest outbreak, but Dr Middlemiss is absolutely right. If we had two concurrent outbreaks, that would stretch us and it would be a struggle.

Q29 Dr Hudson: Thank you for drawing those points out, both of you, on that one-health agenda. That puts it very much in the public domain that this is animal health and welfare that we are talking about, but also human health and welfare, so I do detect a degree of nervousness. Yes, you have coped and, yes, you have delivered, but there is nervousness moving forward.

David Holdsworth: Yes. I am 10 weeks in. I have inherited a site, as we have all said, with multiple challenges, and what is my biggest concern? It is the scale of outbreak that we could face, and the increasing risks, as Dr Middlemiss has said, with increasing global trade and movement, and our encroachment into animal space globally. As the risks increase, the risk of incursion into the UK increases, so my biggest concern is our ability to manage.

At the moment, we have proved with AI that we have managed and coped well, but that is why the Permanent Secretary was really clear on the need for the investment in the site, because how we have coped now is not sustainable long term. That is why the SCAH programme is extremely important for the UK's capability and ongoing health in this space.



Q30 Dr Hudson: Thank you. That is helpful. We are going to explore in subsequent questions the funding and what you can do with the amounts of funding that you have. Hopefully, we are getting to a broad consensus that we need to redevelop this site to the full capacity. If Treasury and Government listened to that, and the £2.8 billion was awarded, how long would it take for that refurbishment to take place? You have said that you are nervous now and you are not going to suddenly get it refurbished overnight, so how long, if you had the money, would the refurb take?

Colin Dingwall: Dr Hudson, my name is Colin Dingwall. I am the senior responsible owner for the SCAH programme. The schedule that we have is over 15 years, but within that—

Chair: Perhaps figure 9 in the Report is quite helpful in this respect. It has some of the main phases, just for anyone who is following. Carry on, Mr Dingwall.

Colin Dingwall: As outlined in the NAO Report, essentially, there are three stages of the SCAH programme. There is between now and 2027, where we have to clear the place where we are going to build the new science hub, because there is live science going on right now. We are investing, along with the critical works programme, to ensure that that science is in suitable premises to last the duration of the programme. That first stage is really critical.

One of the questions that I am often asked is why it is now 15 years rather than the 10 that I inherited when this programme was introduced. It is partly because we have worked in partnership with David's staff to get a detailed understanding of what we need to do to keep the business running while we are doing the transformation programme. That first stage is really critical.

We then have a stage of about four and a half to five years to build the main science hub facility. That is broadly comparable to things like the Crick and the work that Pirbright has done, so that will not vary terribly much.

Then you have a really important phase, which is the licensing. A lot of risk for Government runs on having to rework if you fail the licensing, because we have quite stringent regimes with the Health and Safety Executive and also the Home Office that we have to meet.

It does sound like an awful long time, but I would emphasise that it is not that there is nothing happening between now and 2027. Sustaining the science is one of the critical short-term objectives.

Q31 Dr Hudson: Thank you. That is very helpful. If it did set off and you went down into this timetable, and if, heaven forbid, something happened in the meantime and you had one or two infectious or exotic disease incursions and major outbreaks, can the system cope while this refurbishment is going



on? Do you have contingencies in place to be able to upscale and do the surveillance and testing moving forward?

Colin Dingwall: I will offer a comment from a programme perspective, but Mr Holdsworth and Dr Middlemiss might want to comment. We have been trying to ensure that the capability of APHA as an organisation is uninterrupted.

I mentioned at the start—and I cannot recall, Dr Hudson, whether you were here—that, due to the work that we have done looking at the conditions of buildings, we now understand that the Stewart Stockman building, which is one of the really critical parts of outbreak response, is in a better condition than we thought. Therefore, we have decoupled that from early stages of work.

We will now do work on Stewart Stockman at the back end of the transition programme. That is one example of where, operationally, we are trying to ensure that we are not interrupting the capability that APHA needs to be able to respond to outbreaks. That is very much at the heart of the design of the programme.

Tamara Finkelstein: The programme is not just the strategic belief that we will take some time to build that hub. It is that step-up that we described in how we are doing the facilities management, both improving the intelligent client function to improve that now, and building it into our new facilities management contract for 2024, so that we are doing everything we can to ensure that we are managing the site properly and well.

The critical works of the incinerator that we talked about in the early stages, as part of the critical works programme, are crucial and are coming on stream earlier than the 15 years. Then we will make sure that we are doing the long-term work and managing this as a campus, developing the campus strategy and asset management plan for the whole place. All those bits that need to be together in order to manage the risk appropriately.

We have contingency in place. When you get to concurrent outbreaks, it is absolutely stretched. We have places where we would go, which are contingencies upon contingencies, as we do with everything. It is as good as we can do. We have the plans and agreements around costs and so on that keep us on the right path. We are managing risks, but we are managing them in the best way that we possibly can.



Q32 **Dr Hudson:** That is helpful. Can I just refer that to you, then, Professor Middlemiss, in terms of the frontline veterinary perspective? If this all goes ahead, are you confident from a veterinary perspective that the institution and resilience is there to cope, heaven forbid, if we get incursions?

Christine Middlemiss: Yes, at the ongoing level that we have been doing, with deep prioritisation, as we said, of some research business as usual, and then putting some testing out to regional labs at Pirbright and things, so we are looking at maintaining that level 3 category outbreak preparation.

Q33 **Chair:** Ms Finkelstein, you did an accounting officer assessment on this. I need to ask you, first of all, why it was eight months late being published. It is not helpful to us or the public to follow this. Can you tell us why that was?

Tamara Finkelstein: We did the programme business case in November. We should have got it out publicly within three months, and we did not. We got it out only recently, so I apologise for that.

Internally, we are using accounting officer tests really effectively. We have a revamped investment committee that I have talked to this Committee about before, which is looking at accounting officer tests as part of every meeting at the different stages of the business case, but we know that we need to get that out publicly within the three months after a programme business case is agreed.

We have gone from having two major programmes to having 14, and we have just got into a bit of a backlog in getting those out. I apologise for that, and we are focusing on trying to reduce the time on that and looking at our processes to ensure that we are getting that out.

Q34 **Chair:** I may sound very dry, especially when I am looking at Professor Middlemiss, who is having to deal with the reality of things on the ground, but this is a way that Parliament and the public can have scrutiny over things. The accounting officer assessments are a very useful tool in highlighting what your concerns are, so that we can follow those through.

Tamara Finkelstein: I do recognise that, and that transparency is really important to us. We are using it really effectively internally, but we will up our game on getting them out on time.



Q35 **Chair:** You have an early warning, because this Committee is going to be looking at this in more detail on Monday, and we are aligned with the Treasury on this, in that we think that accounting officer assessments are a good thing, and so we will be calling in Perm Secs if they are not publishing on time. That is your chance. You have now had your moment, but let us hope that we do not have any more moments like that.

One of the key things, of course, in the accounting officer assessment is the feasibility. Just for people who are perhaps not aware of how this works, these are assessments made by the accounting officer—the Permanent Secretary, in most cases—under *Managing Public Money*, looking at the regularity, propriety, value for money and feasibility of a project, but the feasibility bit was only partially met. Do you want to explain your concerns about the feasibility of this project, Ms Finkelstein, just for the record?

Tamara Finkelstein: At this first stage of this programme, as you know, we already changed our assessment around the costs, because this is a really big and complex programme. We need to do the work to understand how it maps out and how it works on a live site. We have done some of that work and looked again at what our costs were.

This first tranche of the programme is about bottoming those things out and getting really robust assessments of the commercial and procurement strategies. Some of that work needs to happen in this phase in order to understand how we do that and manage the risks and challenges that the SRO talked about before around operating on a live site. That is what underlies that assessment.

Q36 **Chair:** So once you are through this next phase you will be able to come back. Will you be doing another AO assessment at that point?

Tamara Finkelstein: We will. For the programme business case for 2024, there will be an AO assessment, and that is where I would expect to be able to change that part of the assessment.

Q37 **Chair:** At the moment, £1.2 billion has been allocated so far. Mr Dingwall or Ms Homer, do you see further increases likely in those estimates?

Colin Dingwall: The current estimate is based on a much more accurate basis. We have a more developed design. It is more complete, so we have the transformation elements and more risk in there.

What I would say is that it is certainly a higher confidence assessment. However, as Ms Finkelstein just described, there is quite a lot of work that we have to do to give ourselves more certainty, because we are still at quite an early stage in this programme. The risk element did jump quite substantially, but that was based on our assessment. There was a lot that we did not know and a lot reflected in that partially met assessment on feasibility. There were a lot of live risks that we needed to take action on. That will influence cost.



Q38 **Chair:** When you say that you did not know, when we visited Sellafield, sometimes they did not know because they did not have plans and things grew like Topsy over decades. Is it that sort of “do not know”, or is it just that there had not been a full mapping of things that you do know?

Colin Dingwall: It is more the latter than the former. For example, earlier I mentioned the building condition surveys that we have now concluded, which mostly validated our assumptions, but have changed some assumptions. For example, we did not have a sustainability strategy nine months ago. We now do. The impact of sourcing carbon-neutral power is a very cost-sensitive one, so we now have a more robust assumption, which will feed through into our cost estimates.

What I cannot really give an indication of is that some things save costs and others bring more costs out, but what I can say is that, by 2024, we will have a much higher level of confidence associated with the costings than we have at the moment.

Q39 **Chair:** You also have the inflationary impact on your budget. How are you mitigating your hedging on that?

Colin Dingwall: We put quite significant provision in the budget for inflation—about £360 million over the lifetime of the programme. For the current phase that we are in, we are comfortable that the funding that we have been allocated from Treasury gives us the money to do what we need to do. The construction projects that we are running are relatively low-scale ones.

It is probably not the right point to make an assessment of what will happen over 15 years. When we come to the 2024 business case, we will make a projection then, working very closely with Treasury, but, again, some of the unknowns that we have are around things like what procurement packaging we are going to take to market and how we are going to try to approach that in terms of our pricing strategy. Those are the things that we will have better certainty of, which will allow us to make a better judgment at that point.

Q40 **Chair:** Are you looking at letting very long-term contracts? There is a danger that you bake in inflationary costs now from the construction industry. We visited HS2 and the steel costs have gone up incredibly. If you bake in those costs and costs are lower when the construction happens onsite, there is a danger that you will be overpaying, so how are you mitigating against that?

Colin Dingwall: We are not at the stage yet where we are making that level of commercial decisions, and we are probably several years away from that.



Q41 **Chair:** When will you be making that kind of decision? Can you just flesh it out for us?

Colin Dingwall: The main construction contracts for the science hub will come after 2025. The business case in 2024 that Ms Finkelstein referred to is, effectively, the overarching cost envelope and scope for the project.

Q42 **Chair:** The year 2025 sounds like a long way away, but we have high inflation now. It is three years away, but it takes a while for the construction industry and other bits of the system to get back into equilibrium, which we would hope would be a lower level of inflation. It is all hope at the moment and we do not really know. I think we would all agree that it is unpredictable. Are you going to keep an eye on when exactly you time that, and is that likely to delay any lettings of contracts? There is such urgency on this, but, on the other hand, there is also a cost implication.

Colin Dingwall: I do not think that it is as much a question of delay as of how we decide to package up, which markets we go to and when we go to them. The commercial strategy work that the NAO has drawn out, which we are still working on, but not far off from, is about making judgments around how many packages and in which way. Further on from that, the procurement strategy will start going into what sort of pricing structure we want to build into contracts.

We are already, as you would imagine, working closely with the Infrastructure and Projects Authority on the different choices that we have around managing inflation, and there are a variety of commercial approaches that we could decide to take. We are not yet at the stage where we have to make those choices. Effectively, we have a period to do a bit of homework in order to work out what our options are, such that, when we do have to go to market, we understand what the most effective route will be.

Q43 **Chair:** Are you mindful of the challenge that we have come across in a number of other projects about integration? We have seen this a lot in rail, because you will be integrating all sorts of things, including digital. Are you changing the approach to procurement as a result of some of the lessons across Government?

Colin Dingwall: Your report on Crossrail probably contained the critical lessons that we picked up on.

Chair: I am heartened, I have to say, that you in your area are reading reports on rail, but, yes, that is exactly where I was driving that question from.

Colin Dingwall: There are two things that are probably most material for us right now. First, it is looking at the operating model capability that we have, and we have already made a choice to increase the client capability to act as a controlling mind.



We had operated on a bit too much of an optimistic assumption that these suppliers would just nicely fit together, but we beefed up the assumption about the level of capability. We, as Defra, are required to manage our risk, because that is critical. We cannot transfer the risk that we have just been describing here to anybody else.

The second bit is looking at the packaging and, again, this comes down to a balance of where we find the specialist skills and get the best in class versus avoiding having an overly complicated set of supply arrangements. We are trying to reduce the number of packages, but, equally, there are going to be some instances where we say, "No, we are going to separate that out".

The science hub is one example of where we will probably separate out the animal science from the non-animal science, because the markets are substantially different, which will help us manage the risk. It is not all oneway traffic, but we are, overall, trying to reduce the number of packages that we have.

Q44 Chair: One of the things that the NAO highlighted is that you are not so clear about the outcomes that you intend to deliver. It is an agreed Report, and so, presumably, you accept that to a degree. How are you going to improve that so that we, you and the general public can be clear about what is going to be delivered by when?

Colin Dingwall: We have already started work on quantifying and then putting in place measures that will allow us to tell whether we will have succeeded in delivering. That work has already started and, by the 2024 business case, we expect to have quantified outcome measures—both baseline measures and then targeted measures—in place, so we will address that.

The NAO Report highlighted an issue that is particularly difficult and problematic where we have defaulted to caution, which is making large assumptions about pound-for-pound spending on science facilities leading to economic benefits. It is quite clearly implicit in the connection between the risks we are mitigating and the wider trade and economic benefits, but we deliberately went to the low side in estimating what the science return on investment would be, because it is quite problematic to say, "If you have this size of lab, it equals this amount of economic benefit". It just does not work as straightforwardly as that.

Q45 Chair: I am sure that it is not as straightforward as that, but I would say that, as a politician, if you are trying to politically argue the point that you need the money, it would not hurt to highlight the trade issues and so on. That is perhaps more of a role for you, Ms Finkelstein, as Permanent Secretary. Across Whitehall, there is a wider impact than just what happens on Weybridge, as Professor Middlemiss and others have highlighted, so how are you arguing the case?



Tamara Finkelstein: We are very much arguing the case and working very closely with the Treasury on this. They have accepted the business case, and there is more to talk with them around the costs, but they have been very open to understanding the impact that Dr Hudson was talking about earlier—the direct impacts on business and on our trade. It is not that we do not make the case. It is an important one to make with the Treasury, but it is harder to get numbers on.

We are cutting edge in a whole number of ways in this area, and that helps to develop our science sector, and the spin-offs and so on that you get in being a strong science nation. That is just hard to put numbers on, but having a particular level of containment that we would like to have at ACDP 4 is a benefit to us that would make us competitive with other countries and so on, and so we will build that into the benefits case. There is no question about it.

Q46 **Dr Hudson:** Just as a follow-up to that, in terms of cross-Government and Defra going to Government to say, “We want more”, you have been before the EFRA Select Committee many times, and there is often this perception that Defra is outgunned by other Departments—trade policy Departments, or the Home Office when we are talking about support for farming, labour and that side of things.

What can this Committee and EFRA do to make your voice stronger in Defra when you are going to Treasury to say, “Please can we have the funding for this critical infrastructure?” What can we do to make Defra stronger?

Tamara Finkelstein: In each of those areas, I suppose I would say that we are making quite good headway. The NAO Report and its conclusions are really helpful, and I suspect that the conclusions from this Committee will be, but there is an understanding, I would say, in the Treasury about the impact and the importance of this. That is why we did get an allocation of funding. It is more of a challenge. We look at it now and recognise that it is has a higher cost to it, but that has not been rejected in some way. We have the money that we need in order to do this tranche of work, so we do have that support.

Q47 **Chair:** Just to be clear, that is the £1.2 billion.

Tamara Finkelstein: That is the £200 million for this tranche of work, which is what we need now for this spending review period. What we are still having conversations on is that bigger element: what is the cost envelope for the whole programme?

Anybody talking about the importance of the work that we do, the work done at Weybridge and the level of risk and so on is correct. It is also very much supported by the Chief Medical Officer and Chief Scientific Adviser, who are very supportive of our plans for Weybridge.

Q48 **Chair:** Are you sure that you will secure the £2.8 billion of funding that you need?



Tamara Finkelstein: The commitment of £200 million for this tranche is to ensure that our figures on costs and our benefits case are as robust as they can be in order to put the case together for June 2024—that is the plan—and to then agree what the right cost envelope is that is needed.

Q49 **Chair:** Just be clear, would the £2.8 billion be allocated outside a spending review period?

Tamara Finkelstein: It would need to be in a spending review, so the next spending review period.

Chair: So that would be from the autumn of 2024.

Tamara Finkelstein: Yes.

Q50 **Chair:** So you will hone the figures, bid in for June, and hope that you will get it in September.

Tamara Finkelstein: Yes, in the spending review, and we would look at whether we can get a commitment for the cost envelope for the programme. It is always a question over what period you can quite get the commitment and the money for.

Q51 **Chair:** But it would be unconscionable to start and not finish.

Tamara Finkelstein: A lot of what we are doing in this tranche is “no regrets” work for whatever the absolute shape of the future programme is. We have the funding for that and that will allow us to do the work to get the estimates robust and the feasibility around the programme.

Q52 **Chair:** Have you had any conversations with the Treasury or anyone else about descopeing this, so that, if you did not get the full amount of money, you would do less on the Weybridge site?

Tamara Finkelstein: The conversation with the business case also starts with options around what the scope is. There is a base line of an ongoing patch and mend, but it is not a value for money option and does not manage the risk effectively. As for the choices around size and number of laboratories and level of containment, we are clear that we need to have this ACDP 4 that we talked about—that highest level of containment for large animals—and to be able to do that.

Q53 **Chair:** It just sounds from what Professor Middlemiss was saying that there is not really much choice. Just to get it to do what it is set up to do, Mr Holdsworth, you said that it is has to have level 4—I am losing track of my levels here, but all of those things have to be in place and working. All the science labs and everything that you have now have to be working, not mothballed and put out or worked around. Is that a simple summary?

David Holdsworth: Yes. There are always choices.

Q54 **Chair:** Would the choices mean privatisation? What is the alternative if you did descope on the Weybridge site? I suppose that that is really what I am driving at.



David Holdsworth: The choice is the level of risk that you want and the capability that you want the UK to have. Those are the choices that will be made as the business case goes through. We are clear in our advice that ACDP 4 is necessary for the UK, underpinning our trade and resilience in this area. However, there are always choices to be made as you go through this process.

Q55 **Chair:** If you did not do it on the Weybridge site, where else could you do that? Are there alternatives?

David Holdsworth: At the moment, as Dr Middlemiss has said, there is only one other ACDP 4, which cannot handle large animals. This is what will give us the large animal capability.

Q56 **Chair:** So we are driving to the point of saying that there is not really an alternative. I used to be responsible for forensic science. Some of that got put into the private sector. I am not making a policy point here, but is that even an option? Is that something that has been put to you? Ms Finkelstein might have had that conversation; I do not know. Is that even on the table?

David Holdsworth: The Permanent Secretary might want to come in after me. As we have said, we have put the choices forward. We already work in partnerships. We work in partnership with Pirbright, which is a thirdsector organisation. We work in partnership with universities. However, the Weybridge site has the highest levels of containment for large animals, which the private sector, universities and the third sector cannot do. That is a capability at the moment that is not available.

Q57 **Chair:** Again, it seems to me, Ms Finkelstein, that this just has to be done. There is not really much option to descope.

Tamara Finkelstein: In putting together, with the business case people, all sorts of options, including multiple locations, different levels of containment and so on, this is what we think we need. The Treasury has accepted the business case that we have put forward and we are in conversation. It is just not the timing at which to go nap on a particular cost envelope, because we agreed that there was a lot of work to do on making that robust and exactly how we will do the programme.

That is the work that we are doing as to what our commercial and procurement strategies are. The agreement was to have that funded for this first tranche and to put together the business case for 2024. I do not feel that we are not having a hearing or that there is a lack of understanding in Government of the need for this programme.

Chair: That is heartening, except that we would like to see the colour of the money.

Q58 **Olivia Blake:** I was going to ask, just briefly, a bit more on that. At what point will there be absolute certainty that you will be able to deliver that one element of it? When do you need to know that? Fifteen years seems like a long time, so if there is a failure of that one lab, that feels quite



uncertain. Is that the top priority of the project and the programme, even though it is not necessarily in the timeline?

Tamara Finkelstein: The level of containment is one part of what we will achieve with that in building the hub. That is an important part of the programme. It is the whole of the programme that we are looking to build for the future, but combined, as we said before, with that facilities management and critical works that will also help build our resilience along the way, I would say.

Colin Dingwall: We have to decide in 2024 on the scope of delivery. If there is to be any change to the containment level or the size of the facility, that is the point when we would have to do it, because we will be, shortly after that, going into commercial negotiations and letting contracts.

Q59 **Olivia Blake:** Is there any reason why you have not done ranges for the costings? I know that you said that they are as accurate as they can be at the moment, but it is just that I always worry when I see a single figure on a big project like this, so I wanted to know a bit more about that.

Colin Dingwall: It is a good point. We will do them. At the stage we were at last year when we did the business case, we priced uncertainty and risk in the risk and optimism bias budget, which is about £670 million. That was our attempt to fully reflect the uncertainty. We have, since then, partly as a result of the NAO inquiry and others, and talking to High Speed 2, for example, got much more insight around how we can use ranging, and we will be starting to apply ranges.

I would also just point out that the likelihoods of some of the risks last year were quite high. I mentioned sustainability. The absence of a sustainability strategy meant that, if you did the Monte Carlo simulations, the difference between the 80th percentile and the 50th percentile was not huge, because of the high likelihood, whereas now, because we have a greater level of definition in some areas, there will be a slightly higher swing on ranges.

In essence, it was our immaturity 12 months ago. We are now in the spot where we can do more of that, so that will start to emerge. We will also start putting in ranges on scheduling.

Q60 **Dr Hudson:** Broadly, where does this programme fit in with the Department's priority list? Where is it on your batting order?

Tamara Finkelstein: It is one of our major programmes as part of our portfolio, so it is a very high priority for us. It is also a very big programme for us and we have invested a lot in building the right team. APHA and the work that it does is a high priority in terms of delivering the outcomes of the Department.

Q61 **Dr Hudson:** From what we talked about earlier today, a lot of this goes under the radar for people at large until we potentially get an outbreak situation, and then it is on the 10 o'clock news, whereas there are very impactful areas such as flooding that come quite regularly, sadly, in my



part of the world. You have to prioritise, but this level of programme, longterm planning and spending is high up on your list.

Tamara Finkelstein: It is. It is more in people's minds. The avian flu outbreak has been huge. It has impacted a lot of people. It is now impacting on wild birds, which is impacting again on a different range of people. That has triggered for people an understanding of that. Covid has put in people's minds the impact around disease and zoonotic disease, and the fact that some of those issues are growing. I do think that there is an understanding of the importance of APHA and its work.

Q62 **Dr Hudson:** There is an understanding, but is it pushing it potentially up the list then?

Tamara Finkelstein: I certainly would say that, in terms of the priorities in my objectives, personally, my chief operating officer is the sponsor for the programme. We have a dedicated SRO and are building quite a big team. We have recognised the importance of this programme and it is a major one in our portfolio.

Q63 **Dr Hudson:** If I can pivot back to you, Professor Middlemiss, on the frontline veterinary side of things, where you are making the case to the Department and to Government, is it your perception that the public awareness and our awareness in the veterinary and scientific community of the risk levels is going up? Are you pushing for this to be a higher priority now? Is the risk level now such that you really are saying, "Look, people, we need to do something"?

Christine Middlemiss: I would not say that it has become a higher priority for me. It always was, because I have an understanding of the risk that we are carrying, but, yes, it has certainly given more focus. With coronavirus, the testing facility, getting results out, communicating evidence and realtime decision-making are things people have been able to see, which have impacted their lives. Generally, there is much more understanding of that.

There is always a difficulty in preparing for the thing that you hope never happens and having it there as insurance, and how you, in figures, demonstrate that. That is always really difficult, which is why, for me, the ongoing, everyday positive trade impact of the assurance that the facility gives us to trade in things is really important.

Q64 **Dr Hudson:** You have mentioned some diseases today on a number of occasions. You have talked about Covid and avian influenza. Are there diseases on your radar that are making you concerned? Is it things like African swine fever, foot and mouth and African horse sickness? Are there any other diseases that you would like to put in the public domain that you have always been aware of, but, in terms of vigilance, people need to be aware that these risks are out there?

Christine Middlemiss: Tuberculosis in cattle, for example, is a massive area for us. While the public health risks are managed through a number of interventions, such as pasteurisation of milk, it is a massive programme.



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It is the biggest endemic disease that we deal with and has a massive impact on the farming industry, as well as trade impacts.

A lot of that work, including the ongoing gamma testing, is done at Weybridge, but also the science, including the TB vaccination programme that we are developing, has all come out of Weybridge and the scientists there. TB vaccination for cattle and the DIVA test, importantly, which distinguishes between infected and vaccinated animals, is critical to its rollout. It is not just the vaccine, but you can know whether it is an infected or a vaccinated and protected animal. That will be game changing in terms of our TB control and around the world for developing countries that have big issues with bovine TB.

Q65 Dr Hudson: Many of the diseases that you have mentioned are very much farm animal-related, and that is very important for our farming industry, trade and that side of things. Would you be prepared to comment as well on potentially some of the risks in companion animals? Certainly on the EFRA Committee, we looked at movement of animals across borders and the risk of dogs coming into the country with, say, *Brucella canis*, which has a zoonotic potential, to highlight the importance of—

Christine Middlemiss: Or rabies, for example, which we are working with.

Dr Hudson: Rabies as well, yes.

Christine Middlemiss: There is a huge amount of work going on at the moment to support Ukrainian refugees coming in with their pets. Ukraine has endemic rabies. It has approximately 1,000 cases a year in animals. Normally, we would have to go through a four-month process of their pets meeting our requirements. We have put in place a system where we can quickly, using the expertise at Weybridge, deploy a validated test that is not usually used. It is not used for trade purposes, but is giving me the assurance that 90% percent of those animals coming in, who are tested as quickly as we can test them, have some acquired immunity to rabies.

That is great for knowing our risk management, but it is also fantastic because it means that we can move a number of them into home isolation with their owners, who are going through this really difficult time and wanting to have their pets. It has enabled us to facilitate that, both managing our biosecurity and helping people come in.

Brucella canis is a reportable disease, so there is an obligation to report a positive test result. Absolutely, we are seeing, year on year, more cases of that coming in, primarily in imported rescue dogs. It is a public health issue. If an animal gives birth, those fluids may be infectious. People have been detected in the past having picked up *Brucella*.

All of these, working together with public health colleagues, our Weybridge testing and the experts, are real-life, real-time issues that we are managing. As more people move more quickly—as generally happens, not



on Covid—around the world, animal and zoonotic disease risks can move, and we need to be prepared, not just for the ones that we know about now, but for the ones that might come in the next 20 years and develop.

Q66 **Dr Hudson:** Thank you. That is very helpful in terms of the importance of APHA and Weybridge across animal health and public health, but you have really articulated there as well the importance of animals to people's physical and mental wellbeing, so thank you for that.

We have talked about the priority list in terms of Defra. If we could talk a bit about where this fits in cross-Government terms and the risk register, it would appear that, in terms of, say, animal diseases, it has gone down the batting order on impact and likelihood. It has been re-categorised. Is that a concern? It looks like it was a level C impact in 2021. On the crossGovernment side of things, is it in the right place?

I note also that antimicrobial resistance is separate to that. As you have articulated today, APHA is involved in that aspect as well. Why is it lower down the batting order in cross-Government terms and should it be going back up?

David Holdsworth: In terms of our priority, it has not gone down. In cross-Government terms, there is always going to be a challenge as to what is a Government's priority at any given time. The Permanent Secretary is involved in conversations, but there are many competing challenges, as we know, in the public sector for what those risk categorisations are. From our perspective, we are very clear on the risks. They are published. The chief veterinary officer is part of the disease risk assessment in the country and our readiness assessment, and we publish those.

Q67 **Dr Hudson:** I am heartened that it is high up on your list, but I am a little more cautious that the Government at large have popped it down the batting order. Again, it comes back to my point—what can we do to get the Defra animal and public health voice stronger in order to put pressure on Government and say, "Look, this needs to be higher up the list"?

Tamara Finkelstein: There are a lot of national risks that are focused on, and this is one of them. There is an understanding of the importance of animal disease and of the zoonotic nature of diseases that are emerging. We will continue to have those conversations. I do not have quite the level of concern that its importance to our resilience is not understood, but any exposure of the importance and the risk is helpful.

Q68

Dr Hudson: As we know, infectious agents do not respect national or domestic borders. Professor Middlemiss, I know that you work very closely with the chief vets from the devolved nations and also your counterparts in Europe. How are we co-ordinating animal health management and science across the UK to ensure that it works together and that there is no unnecessary duplication? In the conversations and the work that you do



together, how do you make sure that it works effectively across all the devolved nations and across the whole of the United Kingdom?

Christine Middlemiss: How does it work? It works very well. We work within the animal health and welfare framework, which is a governance process that goes from our risk managers on the ground, all the way up to our CVOs and policy leads making decisions.

For example, all chief vets attend case conferences around the foot and mouth disease suspect. The chief vet of the Administration that has the suspect disease leads and chairs, but the decision is open to comment from all the chief veterinary officers. Having worked in Australia and with EU colleagues, I am happy that we have a very strong challenge and decisionmaking forum on a UK basis with that.

The expertise that informs those decisions comes from APHA and its experts, so we are using a common evidence base and a common understanding of it across GB and the UK. The reference laboratories that I talked about are UK reference laboratories, which we all have access to and are using.



Q69 **Dr Hudson:** So all the devolved nations have access to that. Coming to you, Mr Holdsworth, on the operation of the nuts and bolts—the dollars and cents, really—how does it work in terms of the devolved Administrations contributing to, say, the Weybridge site or APHA in general? These are reference laboratories et cetera that the whole of the UK uses. Could you also follow that up with how we avoid duplication of effort? Wales and Scotland could be doing something for the UK, so how does it work?

David Holdsworth: The risk of duplication in the science space is very low. APHA is a UK resource. We serve the three nations of GB. Two weeks ago, I was up in Scotland with the Cabinet Secretary for agriculture talking about Scottish priorities. I am about to do the same in Wales. The Weybridge facility and the regional labs that we have are UK facilities, and they serve the UK and the reference laboratories.

Dr Hudson: And they make financial contributions.

David Holdsworth: Thirty per cent of our funding is from devolved nations, so there is a contribution there. There is an agreement about priorities and there are different challenges in different nations of GB. Part of the conversation that we have on an annual basis with the funding is what those priorities are for the administration of the devolved nations, England and the UK.

Dr Hudson: I keep pivoting back to Professor Middlemiss, I am afraid.

Christine Middlemiss: Vet to vet.

Q70 **Dr Hudson:** We have talked about diseases not respecting international or national borders, and you work very closely with your European counterparts. Can you give us any perspective as well about the potential for a veterinary and sanitary and phytosanitary agreement between the UK and the EU? If we had something like that, how would that potentially benefit the UK's biosecurity, but also help some of the political situations that we have in terms of movement of produce between GB and Northern Ireland, and that side of things? Can you give some perspectives on that?

Christine Middlemiss: I can talk from a technical perspective. I have ongoing technical conversations with my counterparts in the EU and in the European Commission, so the chief veterinary officers of a number of member states, for example the Republic of Ireland, Spain and the Netherlands. We have ongoing conversations about shared issues—avian influenza and vaccination, for example—and I have regular technical meetings with the Commission. Regionalisation in the avian influenza outbreak was an example of where that worked very well.

As I said before, we put in a control zone and we trade from outwith that control zone, and they mirror that in their legislation in order to enable that trade pattern to happen. Other than those control zones, the avian influenza outbreak has had no impact on trade for related products



between the UK and the EU, because of the understanding that we have of each other's processes, how it works, and the open and transparent information sharing at a technical level. Where we have the political processes and framework in which to do that technical level, it is working effectively.

Q71 Dr Hudson: So there is a technical understanding of what is going on between the authorities. Again, I do not want to push you into the realm of policy, but do you perceive, among the veterinary and the scientific community across the UK and your European counterparts, an appetite for a joint veterinary SPS-type arrangement, where that understanding is formalised?

Christine Middlemiss: We have shared risks, as we saw with the wild birds bringing avian influenza, for example. Whatever the politics are, in order to best manage those risks, it makes sense for us to have these ongoing conversations about, "What are you seeing? What are we seeing?" It happens at lab level. It happens with our different science experts and their different forums. It happens at chief veterinary officer level. It also happens with the World Organisation for Animal Health, which has a Europe group, so we are all very much plugged into that as well, using the different forums available to continue technical conversations.

Q72 Olivia Blake: Just to return to the risks to the programme, rather than what the programme is trying to address in terms of risks, I suppose, I am very intrigued, because of the high number of risks that there are, how risk management will be integrated across the whole site throughout the programme and who will have the most oversight and ability to react to that.

Sarah Homer: As I said earlier, we have the snappily named science facilities joint management board, which brings together risk across the entire site.

As I said previously, risk is managed very carefully within the science environment, within the programme environment, and within the critical works and property environment. It comes together at that joint management board, which Mr Dingwall sits on, as does the director for property and Jenny Stewart, who is a director from APHA who has science and transformation.

Within the programme itself, we have a separate risk board, which is chaired by one of our independent directors. Colin will probably speak to that in a second, but we have spent an awful lot of time and effort improving the risk management within the programme and making sure that we have that independent challenge and assurance. We have reached out to other sectors—nuclear, health and others—to really understand from them how they manage the risk and complexity across the programme.

As others have said, the particular complexity here is the campus nature of the site and the absolute requirement to maintain that operational



capability as we deliver the programme. We feel that we have a really robust approach. However, we welcome the recommendations from the NAO and we want to continue to improve, so we are looking at areas where we can do deep dives and continue to improve the governance structure.

Colin Dingwall: The number of risks that we have identified is a factor of the fact that I have 15 risk registers, which is a reflection of the subprogrammes. We have a pyramid. It goes up; we have the diagram in the report. The number of risks and the fact that we are identifying them is a mark not of a problem but of greater maturity.

In some respects, in my risk governance, I want to go and have conversations about things that we should worry about. Certainly within SCAH, we are spending lots of time trying to build our understanding of our risks and what our mitigations are. I do not think that I could add anything to what Sarah said on the cross-site, other than that it is a process and we are consciously trying to evolve and improve as we go.

Tamara Finkelstein: I have some confidence in the structures that we have in place, but our reflection on the recommendation in the NAO Report is that it is so important that we have that co-ordinated approach and that really shared understanding of the risks. All that joint working and shared understanding of risk has just improved what we are doing, and we should take another step and do more of that. It is totally crucial.

As I say, I do feel some confidence about what we have in place, and about the relationships and the way in which it is working, but we will do more, because it is so important.

Q73 Olivia Blake: Do you mind me just probing a little bit into whether you have learned the lessons of having so many risks going into a programme of this magnitude and perhaps putting the ask to Treasury a bit earlier in the future of this site? I am thinking 30 or 40 years down the line or however long the sites will last for. It sounds very complicated as a site

and very unique, so it would be a shame for any learning from this project to be lost 20 years down the line.

Tamara Finkelstein: One of the things that we are building into this programme is future proofing, so that we do not get into this again and that it has the mechanisms by which we are doing that. That is something that we are doing in other programmes, so that, when we look at the Thames barrier, we also look at what it looks like for 2100 and so on. We are going to build that in, because of the importance of this work, but maybe Mr Dingwall will say a bit more about that.

Colin Dingwall: The business case that we took forward was a 40-year business case, which included the costs for the asset maintenance and refit. For high-containment facilities, typically halfway through that lifecycle, you need to do a wholesale refit, so that cost is built into the business case.



Clearly, as we go through, we are going to have to get funding, because Government allocate funding spending review by spending review, but the business case is predicated on this being a longterm view rather than a drop of funding in response to a crisis. It is intended to give us that long term.

Q74 Olivia Blake: That is very important. Just to get back to the nuts and bolts of the programme and how you are going to manage it, why does there not seem to have been a huge amount of interaction with the market in the programme so far? This is very technical, so I would just like to understand what your plans are to address that gap at the moment.

Colin Dingwall: We have done quite a bit of work with the market. We have had a periodic information notice and a survey of suppliers. We now have a database of potentially interested suppliers. Defra as a whole has just let an engineering delivery framework, which is not just for SCAH but for Weybridge as a whole, and that has given us quite a lot of understanding of which players are on the market, who is interested and what the capability is.

I may have mentioned earlier the specialist consultancy that we have engaged with to give us more insight, which has fed through to some of the judgments we have made about our structure and our packaging, so we have done quite a lot. We have clearly not yet got to the stage where we have run any large-scale competitions. That will begin later this year, when we do our first professional services procurements. We have done quite a lot so far, but there is a lot more to do, and this is one of the areas where the Government construction playbook is quite clear that, in the early stages of the programme, you need to spend time investing in that insight and those relationships, so we are doing that.

Q75 Olivia Blake: Some of this will be quite specialist, I recognise, but not all of it. Has there been any discussion with the wider sector about its plans for build over the next 10 or 15 years? If there is a limited number of contractors in the UK—and I imagine that most of us would want it to go to a UK contract, given where we are—will that push up the price of the contract? Is that a risk that you have identified and are working through?

Colin Dingwall: As you would have expected, that is one of the things that we have asked for consultancy support on in order to understand the pipeline of these types of projects. The health and capacity of the market is a critical challenge that we have identified as one of the risks on the risk register, and it has influenced this judgment of packaging that I mentioned earlier on. It is coming into the programme already, and that will influence the choices that we make over how we go out, so I think it is a critical factor for us.

Q76 Olivia Blake: I just wanted to pick up on something that Dr Middlemiss said about the flexibility that is needed on the site in the future. For the more transformational elements of the programme, is there a bit of a lag there



and does more need to be done to think about that going forward for the 2024 business case?

Colin Dingwall: I will start and then Mr Holdsworth might want to pick up on this. The transformation element, as you will be aware, was one of the elements that were not in this programme at the very start. It is one of the reasons why this has broadened out. In the two years since I have been here, Mr Holdsworth's team has developed a transformation operating model, which brings together how the science will be delivered in the new facilities, how the facilities management will work, and what digital capabilities are required.

We are very keen to do that work at this early stage, because it has a direct influence on what we ask to be built. We want to try to avoid doing that painful retrofitting process, where you get this brand spanking new facility on day one and you have to then go straight into a refit programme because it does not work. It is fair to say that, maybe 18 months ago, that was lagging. We are now making quite rapid progress, but we still have quite a bit of work to do over the next couple of years.

David Holdsworth: One of the pleasing things coming in was to see that the lessons have been learned from other NAO Reports, where those who are going to use the facilities that were being built for them were brought into the heart of the programme, but also, importantly, that we tested how we currently did things, because we do not want to spend a significant amount of public money and then for it to immediately be out of date by the time we build it.

It is the balance of both and, as the accounting officer for APHA, it was really pleasing for me, coming in, to see that those lessons had been learned from other NAO Reports, that that process had been undertaken, and that we had, at the heart of the programme team, scientists who are going to use these facilities and engineers who are specialists in those areas, but that we were also being challenged by external consultancy on our thinking and where the latest technology processes are going in this space.



Q77 **Chair:** Was there an international benchmarking exercise to see where the best is?

David Holdsworth: Mr Dingwall can come in on this. There have been some international comparisons underway. There are only a couple of facilities globally, for example ACDP 4, and so we have been looking at those, but that process is ongoing.

Colin Dingwall: Pre-pandemic, various members of APHA staff visited some of these facilities overseas, so we have established relationships and we have information and understanding of those capabilities. As Mr Holdsworth says, that is ongoing. Colleagues from one of these facilities in Winnipeg have taken part in one of our challenge panels to test out our approach, so we are really trying to work those relationships, so that we get the benefit of their experience.

Q78 **Olivia Blake:** You have predicted my next question, Mr Holdsworth. I just wanted to ask a little bit more about the structures of the boards. I am thinking of NHS boards and delivery boards for programmes, which would often have a lead clinician on, and I just wondered if there is that voice of a scientist or a vet in the room at that level, recognising what you have just said about the underneath levels. Is that present at the moment and would you like to see that if it is not?

David Holdsworth: Absolutely, so Dr Jenny Stewart, who is the director of science and transformation, sits on the programme board alongside me.

Chair: I will just refer people to figure 6 on page 30, if anyone is following this, so that we can put your words into context.

David Holdsworth: Yvonne Spencer, who spent some 38 years at the agency as a practising scientist, also sits on the APHA management board and on my executive leadership team. Science has a big voice throughout the governance structure, and that is exactly the way it should be.

Olivia Blake: I completely agree. That is very good to hear.

Chair: Can I thank you very much indeed? This really highlights—and Ms Blake hit the nail on the head—that there are risks to the programme, but there is a huge risk if this programme does not deliver to the health of the nation, both animals and humans, so we will be keeping a close eye on this and, as you have heard from our sister committee, so will the EFRA Select Committee.

Can I thank you all very much indeed for your time on this hot, sticky afternoon? The transcript of this session will be published on our website, uncorrected, in the next couple of days, and we expect to produce a report sometime in the autumn, subject to parliamentary recesses and so on. Thank you very much indeed.