



**LEGISLATIVE ASSEMBLY FOR THE AUSTRALIAN CAPITAL
TERRITORY**

**STANDING COMMITTEE ON PLANNING AND
ENVIRONMENT**

**(Reference: Inquiry into the proposed nomination of the ACT
as a UNESCO biosphere reserve)**

Members:

**MR M GENTLEMAN (The Chair)
MR Z SESELJA (The Deputy Chair)
MS M PORTER**

TRANSCRIPT OF EVIDENCE

CANBERRA

TUESDAY, 28 NOVEMBER 2006

**Secretary to the committee:
Dr H Jaireth (Ph: 6205 0137)**

By authority of the Legislative Assembly for the Australian Capital Territory

Submissions, answers to questions on notice and other documents relevant to this inquiry that have been authorised for publication by the committee may be obtained from the committee office of the Legislative Assembly (Ph: 6205 0127).

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The committee met at 1.30 pm.

KEARNS, MR ALLEN, Deputy Chief, CSIRO Sustainable Ecosystems

BARNETT, MR GUY, Urban Systems Program, CSIRO Sustainable Ecosystems

THE CHAIR: I declare open the public hearing this afternoon of the planning and environment committee on the UNESCO biosphere reserve nomination. Mr Guy Barnett and Mr Allen Kearns from the Commonwealth Scientific and Industrial Research Organisation will be the first to give evidence this afternoon to the committee. Welcome, gentlemen. Just before we begin, I will read out our witness card for you.

The committee has authorised the recording, broadcasting and rebroadcasting of these proceedings in accordance with the rules contained in the resolution agreed to by the Assembly on 7 March 2002 concerning the broadcasting of Assembly and committee proceedings. Before the committee commences taking evidence, let me place on record that all witnesses are protected by parliamentary privilege with respect to submissions made to the committee in evidence given before it. Parliamentary privilege means special rights and immunities attach to parliament, its members and others necessary to the discharge of the functions of the Assembly without obstruction and without fear of prosecution.

While the committee prefers to hear all evidence in public, if the committee accedes to such a request, the committee will take evidence in camera and record that evidence. Should the committee take evidence in this manner, I remind the committee and those present that it is within the power of the committee at a later date to publish or present all or part of that evidence to the Assembly. I should add that any decision regarding publication of in camera evidence or confidential submissions will not be taken by the committee without prior reference to the person whose evidence the committee may consider publishing.

Thank you for coming in. Would you like to begin with an opening statement?

Mr Kearns: I might just kick off and thank you for the opportunity on behalf of CSIRO to be here. We are both from the Division of Sustainable Ecosystems. We are both based in Canberra, at the Gungahlin homestead. Our division has about 400 people across Australia in 14 different locations. We have an urban systems program made up of about 50 people, with Guy Barnett as part of that in Canberra, with 10 people in Canberra, about 40 people in Melbourne and the remainder of those people based in Sydney and Brisbane. The focus of our new urban systems program is encompassing everything from the built environment and how buildings perform, subdivision planning and sustainable urbanisation, and for looking at urban environments, which is part of the research that we want to talk to you about today.

I thought it would be a good idea, given that you already have our submission, if we could just take maybe 20 or 30 minutes to give you a presentation that gives you more of a background and perspective on what we would call a social ecological perspective on urban landscapes. I think that that would then set the scene for the background to our submission and the recommendations we have made, which may be a bit counterintuitive in the sense of how other people maybe view the biosphere

concept. That would lay the platform for discussion around the urban biosphere notion, which is the proposition that we wish to put before you.

THE CHAIR: That sounds good. Go ahead.

Mr Kearns: Guy will take that away.

Mr Barnett: I would just like to thank Hanna and the committee for the opportunity to present to you today. I would like to start by saying that Allen and I are not actually experts in biosphere reserves, but we clearly have experience with them and can see the potential for using the biosphere reserve concept to address issues of urban sustainability in Canberra. I would just like to start by saying that it is not our intention in this presentation necessarily to go back over the material that we submitted in our submission. I would like just quickly to reflect on three key points from that submission and use that to move into the rest of the presentation and set up a broader discussion on the issue.

As Allen mentioned, one of the key recommendations coming out of our submission is that the ACT should pursue the idea of an urban biosphere reserve. Secondly, it should take a ““no regrets”” approach—we believe that is the best way to proceed—that sees value and benefit in the process of considering nomination as a biosphere reserve, rather than just focusing on designation. Thirdly, just to flag around timing, I guess. One of the authors of our submission is a PhD student from the University of Tasmania, Kate Matysek, who is actually doing some research into urban biosphere reserves. She has spent some time, obviously, here in Australia, but also in Canada and her view is that these things actually take quite a long time to go from consideration and discussion of the ideas through to actual designation. Her experience in Canada was around a seven-year time frame. That actually fits quite nicely, I guess, with Canberra’s centenary celebrations in 2013. So just a flag there around the actual length of time that it has taken in other countries to move through to designation.

In terms of the structure of our presentation, as Allen suggested, we would like to talk for some 15 or 20 minutes. The talk is structured in two parts. The first is an introduction to Canberra as an urban ecosystem and it draws on my experience and Allen’s experience as environmental scientists working in Canberra over the last 10 years. I think it sets the scene nicely for then considering some of the issues to do with urban biosphere reserve nomination. So I will just start there. I would like to invite Allen to interject, if he wants to add, throughout the course of the presentation.

I would like to start the big picture with this image, which is a satellite image. You probably can’t see it all that well, but it is a view from space of the urban lights of cities throughout the world and it shows the level of urbanisation in North America, Europe and parts of Asia. Australia looks fairly dark but, as we all know, over 80 per cent of our population lives in urban areas and most of those within 50 kilometres of the coastline. Australia is highly urbanised and the world is actually highly urbanised, too. In 2007 we will become an urban species with, for the first time in history, more than 50 per cent of our global population living in cities. Urbanisation is now a dominant force in global change and I think a key issue for us to consider in terms of biosphere reserves.

Ecologists like Allen and I—most of us—live in cities but very few of us actually study the ecology of cities. Most of us tend to go off into pristine natural areas away from human disturbances. It has been only quite recently, in the last 15 years or so, that there has been a push for ecologists to start to look into the cities themselves and appreciate the biodiversity value that they contain. In that time there have been two major thrusts: an ecology in the city focus, which is really about understanding the physical environment, soils, plants and vegetation at a site-based scale, and then there is ecology of the city, which is much larger and similar to the ideas of urban metabolism, ecological footprints and the like. It is really about understanding the city as a system and the range of interactions between social, economic and environmental processes.

Those are the two major foci in urban ecology work at the moment. The latter lends itself to what we are seeing as an urban ecosystem perspective. In the past, you would see a number of axes there. There has been a natural axis, like I mentioned, where people have focused on plant and animal communities in their physical environmental context. We are starting now to bring in cultural elements as well, understanding human and social systems and how they interact. The fourth dimension is a fairly new one, bringing in the built environment focus as well. So understanding all those dimensions and seeing our cities as ecosystems in their own right, but very different ones to what we have focused on before.

This slide—don't worry too much about the detail—is just drawing at that whole-of-city scale on some of the approaches and techniques for considering the metabolism of cities and seeing cities as an organism, if you like, that consumes food, energy and water from remote locations, processes those, and then there can be waste and emissions coming out the other end. But the key point I want to make on this slide is really seeing, I guess, human health and wellbeing as a fundamental outcome of those interactions.

The point of this slide is just to think about placing Canberra and the ACT in its bioregional context. On the left—it has not come up all that well on the slide—we can see the ACT administrative boundary and the urban areas within that and the natural areas. On the right here we have the upper Murrumbidgee catchment, which one could argue might be more of a bioregional or ecological boundary that one might consider when thinking about biosphere reserves. You have the Lake Eucumbene and Tantangara reservoirs down there near Cooma, the Murrumbidgee River and all its tributaries running through Canberra, obviously, and on to Yass, Burrinjuck and the like. In a lot of the work that we have done in the past, water has been quite a nice integrator of landscape and aquatic and a range of sustainability issues.

THE CHAIR: And quite current, too.

Mr Barnett: Absolutely. This is just reflecting on a satellite image showing land use for the ACT. Don't worry too much about the detail, but obviously there are lots of natural ecosystems in the Brindabellas and the like and they are providing the natural capital that provides Canberra with clean water and the like. We have the urban areas and a range of exotic forests and agricultural landscapes up in the northern parts of Canberra as well. There is interplay there between the natural capital of the natural

ecosystems and the human capital embedded in the cities and the livelihood systems surrounding those.

This work here is some vegetation modelling work that we undertook a number of years ago in Canberra which predicted the pre-European vegetation cover for all of the ACT—that is the image on the left—and then on the right we have basically just cut out all the areas that have been lost since European settlement through clearing and the like. I would like you to focus on the orange colours up in the north of that image in the left, which represent our woodlands and our lowlands, native grasslands and the like. A lot of that is now gone through urban development and agricultural practices in the northern part of Canberra, whereas some of the blue colours represent some of the forest and vegetation communities that are still reasonably well represented in our protected area networks.

Just drawing on those ideas, we can start to look at the types of land cover that we have in, say, the Cotter catchment, which provides drinking water for Canberra, a catchment that is in really quite good condition. The Googong catchment, on the other hand, has a lot of agricultural land use and is relatively disturbed. You can start to ask questions about the ecosystem services. The Cotter catchment provides clean drinking water to us for free, basically. We are using the services of the environment to clean that water. But the Googong, on the other hand, requires built infrastructure to treat that water and provide it to Canberra.

As we know, we live in a dynamic world and this is just highlighting the bushfires of January 2003, which actually changed that story. They obviously impacted on the ability of the Cotter catchment to provide us with that clean water. We live in a dynamic world which is full of surprise, uncertainty and change, and climate change is obviously a key element of that as well.

Moving back now into the urban focus, I have spoken a lot about vegetation patterns and land cover patterns, but our cities are socially and economically quite patterned as well. These are just a few quick slides from the social atlas of Canberra that has been produced by the ABS. Don't pay too much attention to the detail, but the slide on the right shows couples with dependent children versus what are called DINKS—the double income, no kids people who are focused around the centre of Canberra. We can also look at people who travel to work by public transport versus people who travel to work by car. The main point here is not just that we have this ecological patterning but we have some quite strong social and economic patterning and gradients throughout Canberra as well, and so the urban ecosystem focus is really about looking at the nexus and the interactions between those types of systems.

Just to draw on where our current work and research on Canberra is up to, clearly there is a focus on whole-of-city scale within Canberra. We have the report that was produced a few years ago that looked at the ecological footprint of Canberra and there is the urban metabolism approach as well that gives you a handle on urban sustainability issues at that whole-of-city scale.

Then we have an effort at the household scale, a focus on individuals, and again the ecological footprint is putting that focus on individuals, but there are also things that people at that individual scale can do with regard to sustainability in terms of fitting

low-flow shower heads and compact fluorescent light globes, recycling and a whole host of features, but what I think is really missing in the urban sustainability debate at the moment is that neighbourhood scale. That is a scale at which a lot of our planning decisions are made as well and that is a scale that much of our research in the urban systems program is beginning to focus on.

This is just an example of some of that work, moving from an understanding of pattern to an understanding of processes. This is an urban image of, in this case, a part of Melbourne. We then have a map of the public open space system for that same image and then there is a range of remote sensing techniques that we can do to actually draw out the total urban vegetation cover that we might have in a city. So it goes well beyond just what is in the public open space system, in the park system, and it is an element that we actually don't know very much about. I guess one of the questions we are asking, and will be asking through a new project that we have just commenced in Canberra through ACT NRM funding looking at urban ecological function, is: what are the functions that the urban vegetation in Canberra provides to people in terms of shade and shelter services, cleaning the air and the like?

THE CHAIR: Does that include an allocation to the amenity?

Mr Barnett: That's right. There is a whole range of services that our vegetation provides to people and I have just outlined two, but there is amenity, recreation and the like.

Moving from that focus on the processes or the value that urban vegetation provides to starting to think about designing with nature and designing those ecosystem services into our new urban developments, this slide simply illustrates that in the sense that we can start to mimic some of the natural ecosystem functions in terms of cleaning water in the way that we manage stormwater in urban environments. We are starting to see those ideas in the Sullivans Creek catchment and the like.

Moving beyond just looking at urban green space issues and ecosystem services, we are developing a range of spatial analytical frameworks for exploring a whole host of sustainability issues. We are now starting to look at the links between the urban environment, the food systems and human health outcomes in places like Canberra. We have satellite imagery. We have maps of the green space and how that is distributed through our urban environment. We can overlay information like lot sizes and work out the size of people's backyards, and the opportunity kids have for recreation and the like. We can overlay road networks and a whole range of census information from the ABS, bringing in social and economic dimensions, and we can start to explore all those issues and what they mean in terms of a physical built environment that influences human health outcomes like obesity, cardiovascular disease and the like. We can start to explore the way that cities metabolise food, the stocks of food that come from our agricultural regions and elsewhere into the city, how that food is actually distributed to people, where it is located and the like, and the way that influences human health outcomes as well.

Finally, just to touch on some of the lessons that we have learned from that quick overview of our research around Canberra, water can integrate sustainability thinking in urban ecosystems. I think water can be a key integrator. Catchments are natural

organisational units for urban ecosystems. Catchments are real things. You can go out there and see the physical watershed divide, so there is a tangible boundary that I think everyone can actually relate to.

And then there are the ecosystem design principles that I spoke about before—a really good way of integrating with engineers, architects, urban planners, land managers, community groups and ecologists. There is almost a common language there for moving in a serious way towards some urban sustainability goals. Ecosystem design uses readily available spatial technologies. I think it requires minimal ecological literacy, if you like. Everyone can relate to the types of pictures and graphics that we have been able to show here.

Finally, our work has highlighted that there is a need for a shared vision and that we will need vigilant champions within our community to take carriage of these types of ideas and see them right through to implementation. I will touch on that a little later when we are talking about the urban biosphere reserve.

From that quick journey of our research interests and what we have done, I would like to end that section of the talk on what are Canberra's future development pathways. What opportunities are there for green building and infrastructure within Canberra? How can we move to more human-scale transport facilities? Moving towards total water cycle management, how do we maximise ecosystems services and how do we get better use of renewable energy sources? There is a whole host of really big issues there and I am sure there are others I have not mentioned that obviously Canberra will be needing to face in the future.

That is a nice segue into talking about the biosphere reserve concept because I think it is a really nice tool and framework for a city like Canberra to start engaging on these issues and start thinking about where Canberra is now, where it wants to be in the future, and the types of pathways that it might need to travel along to get there. So, just on the second part of the talk, what are some of the considerations for becoming an urban biosphere reserve? You will all be familiar with the two top slides there around the three functions of biosphere reserves: conservation, development and logistic support around research, monitoring and education, and then the traditional zonation that they have of the core, buffer and transition areas.

In terms of thinking about an urban biosphere reserve, it is quite different to that traditional mode. The function of an urban biosphere reserve would still be focused on the value of biodiversity, but it is more about the value of biodiversity to enhance the quality of life of the people, human livability of urban residents, rather than just a focus on conservation of biodiversity for biodiversity's sake. With an urban biosphere, there would be clear focus on the built-up areas and the urban area of Canberra as the core of that focus. So, if you like, it is almost the inverse of a traditional biosphere reserve that you might see in more of a rural context.

THE CHAIR: Do you think that plays into the three key areas that the UNESCO programs look for, that is, the urban buffer and nature park?

Mr Barnett: I think it does. In my next slide there are actually a number of models. A man and the biosphere urban group has been formed to explore this idea of an urban

biosphere reserve. They have postulated a number of models for how that zonation might work in an urban context. I think there is clearly a role, and I will touch on that now. A UNESCO Man and the Biosphere Urban Group was formed in around 2000 and, since that time, a number of key conferences have been held. The first of those was in New York in 2003, and that resulted in a publication called *Urban biospheres and society*. Really, the purpose of that was to bring a range of scientists, researchers and policy makers who were considering the idea of an urban biosphere reserve together in the one spot. Through a focus on case studies, they are exploring some of the issues that are involved in taking the biosphere reserve concept from that more rural traditional mould and seeing how it might apply to an urban area.

In 2005, there was a follow-up to that meeting in Gothenburg, Sweden, which Allen attended. It was called “Life in the Urban Landscape”. So there is an active group of researchers and the like scattered throughout the world that are now looking at the types of ways that we might be able to move towards actually getting up an urban biosphere reserve. At the moment we have a number of conventional biosphere reserves, around 10 or so, that actually have within their transitional buffer area a fairly major city, but their focus is still on the traditional mould, whereas there is a push here to see a new type of biosphere reserve, which would be an urban one with a focus clearly on the urban core.

As I mentioned, there have been a number of models that people have played around with in terms of zonation. The one on the top left is where you basically have a city in the middle that is ringed by a green belt of reserves. The one on the top right is where you have an urban green corridor biosphere, so you might have two important natural areas either side of a city and some important linkage habitat between the two that runs through the urban environment. But I think really the bottom two are probably the most relevant to our situation in Canberra.

The bottom one is what they are calling an urban green area cluster biosphere reserve, where you could take the Canberra nature park, which is made up of, I think, around 30 small reserves scattered throughout Canberra that cover bushland and hill type environments down to the lowland native grassland habitats. Then on the bottom right we have what you could call an urban region biosphere reserve, so you could take a larger regional perspective and see a number of urban centres scattered within that. This is just an example showing the Red Hill nature reserve as part of the Canberra nature park and how you clearly have these green belts scattered right in the middle of urban areas. I think it is just a really nice opportunity to explore the connections between people and nature that is at people’s doorsteps.

Moving on to the focus on research, monitoring and the educational component of the biosphere reserve, there are these long-term ecological research projects set up in the US. Two were set up in 1997. One was focused on Phoenix and the other one was focused on Baltimore. These were projects that were funded through the National Science Foundation in the US. They have funding for a seven-year term which is then renewed. So, as long as they are successful in their rebid, they can go on for quite substantial periods of times. These were the first ones to focus on urban ecosystems and they are a nice model for thinking about that research, education, monitoring, educational component.

But we also have the New York Urban Biosphere Group and the Cape Town Urban Biosphere Group, which are very active members of that larger MAB urban group. They are similar sorts of organisations that are really looking at ways that they can get both New York and Cape Town designated as urban biosphere reserves. Allen and I have connections to a number of the research directors in the LTER networks, but also in the New York and Cape Town areas as well.

So why Canberra as an urban biosphere reserve? There is increasing recognition of the need for region-wide planning and clearly water and climate change, and the fires that we had as well in 2003 make that really obvious. There is increased focus on application of ecological concepts for urban planning and design through ideas like conservation subdivisions. The CSIRO is having discussions with the ACT Planning and Land Authority around a number of those ideas as well at present.

I think that another good reason for Canberra to become an urban biosphere reserve is that it would provide a visibility and support for challenges facing the city so as to motivate and legitimate current environmental efforts. I think it could really galvanise a whole host of environmental activity that is going on within Canberra and is focusing on Canberra as an urban ecosystem. There is activity within the ANU and activity within CSIRO and a host of other non-government institutions as well.

I see a biosphere reserve as a model for socially inclusive environmental management. So it is really managing the environment where our people live and looking at that in a triple bottom line fashion. Obviously it provides a site and opportunity for sustainable experimentation. From a research perspective, there is a real opportunity to look at the types of planning that have been undertaken in Canberra in the past and to learn from that planning as a natural experiment, if you like, to compare different planning intents with different planning outcomes from biodiversity, health outcomes or the like. So there is a really unique opportunity, particularly given that Canberra is a planned city as well. There is a really well-documented history for us to go on there.

Finally, we are really keen to see cities as positive assets and not simply sources of environmental problems. I think that in lots of ways, given what I mentioned about the rate of urbanisation of the globe, cities really are an opportunity for us to move forward in the future. There are lots of economies of scale in having people living in cities and lots of opportunities that we can explore there. I think the biosphere reserve type of framework is a really nice way of engaging in those sorts of conversations with a city and its stakeholders and community.

So, just to finish up, I think there are a number of planning issues in terms of considering Canberra for urban biosphere reserve nomination. One is the need for a clear understanding of the aims of an urban biosphere reserve. I think that is particularly important, given that an urban biosphere reserve is a new thing. We are still working out exactly what that is and how you move it through the UNESCO process. It is different to the conventional format of biosphere reserves, so we would need to think about the way that you articulate and explain those types of ideas to the community.

There obviously needs to be support from major stakeholders and basically community ownership of the whole process and, as I mentioned at the very outset,

some generous timeframes for introducing it and explaining the concept. There is the issue of where you draw the boundaries and decisions needing to be made that reflect a range of considerations from biodiversity to, if you are thinking about urban metabolism, urban ecological footprints. Where does the boundary end? Basically, you could be looking at the whole biosphere. So there is a whole host of issues there as to what boundaries need to be considered.

From the viewpoint of regional governance and touching on what I said about community ownership, I think an urban biosphere reserve should add tangible benefits to an urban area, rather than just adding another administrative layer. So I think we really need to focus on the opportunities that it presents and really take the time to engage with the community and stakeholders basically to create a bottom-up process there. That is where I would like to leave it. Thank you.

THE CHAIR: Thank you very much for that detailed presentation. It was very good. I would like to begin by addressing some of the things you talked about towards the end of it: community involvement and community ownership, which are a key part of biosphere reserves. How do you see that we could involve the Canberra urban community more in sustainable planning and sustainable living?

Mr Barnett: I think there is a great opportunity to create a dialogue around urban sustainability. Through the work of Peter Ottesen and others, we have been moving towards that for a number of years. I think that having a goal like urban biosphere reserve designation could really galvanise the activity there.

In our submission we outlined a number of potential models for engaging with the community and stakeholders and for having them gain some ownership over the whole process. There are also a number of models that have been tried elsewhere that we would need to have a good look at.

The Mornington Peninsula and Western Port biosphere reserve down in Melbourne is relatively close to what we would be talking about here in an urban biosphere reserve. The Mornington Peninsula area is undergoing urbanisation at a rapid rate. I note that they have set up a number of community forums or workshops and have used those as a way of moving forward. I am not sure how much success they have had with that. Allen, do you have any comments?

Mr Kearns: When I was in Sweden last year I visited Kristianstad and the biosphere reserve that has been set up in Kristianstad in southern Sweden, which is called Vattenrike. You will see this referred to. I met the people who were running that and we had a good look around. The thing that struck me as important there is that, when you bring this form of governance in, you are bringing government and people who manage resources together with community and industry. A whole range of conflicts and different values that people see begin to arise.

In Kristianstad one of the conflicts was between the farmers who grow potatoes and the storks—the large birds that come to live in these areas—because there is so much water in the Kristianstad area. Of course the storks are getting stuck into the potatoes. So there is a real conflict between importance of the biodiversity conservation with the storks and the wetlands and the agricultural production conflicts and people's

livelihoods. It has taken a long time for the people who run the biosphere reserve to work through those issues with the farmers and biodiversity people. It has to do with water management, flows and all sorts of things like that as well.

By tackling those really tough issues and finding solutions in land management practices, roosting areas and things like that, they have been able to come to a shared understanding about the multifunctionality of those landscapes, particularly in Europe. These are places where people have lived for thousands of years. There has been very strong settlement there over hundreds of years. It was important to see that.

The other conflict was around water. It is very low-lying in Kristianstad. There are fears of flooding; and of course rivers have been tamed and constructed, which has caused problems in the ecological functioning of the wetlands. So it is coming to grips with working out how you can live with water and biodiversity and looking for ways, as Guy referred to, through ecosystem design and working with communities with different perspectives, to solve those problems.

The thing that really struck me there was that the biosphere reserve I visited is a governance system that brings all sorts of different interests together. It does not appear to be controlled from the top down.

THE CHAIR: That is what I was going to ask you next. With the example you have given us, did you find that issues were resolved by cooperation and agreement, rather than overarching legislation, for example?

Mr Kearns: It would appear so. They are Swedes, and they spend a lot of time talking these issues through. The clear thing is that, in that case, Sven-Erik Magnusson, who is a colleague of ours, is the person who leads the area. He is the champion in bringing this together. He is not from that place. He has gone and lived there over the last 10 or 15 years. That clear leadership of someone who is not government, not industry and not community, who represents this kind of overarching leadership that brings the whole concept along, appeared to be incredibly important.

MS PORTER: I wanted to focus on that idea of the champion. How do you identify that? Does that person or group of persons just naturally surface?

Mr Kearns: Great question. It is about leadership, isn't it? It is about a different type of leadership. Sven-Erik is from a science background. So I think there is a strong interest in understanding, as Guy has just been talking about, how social-ecological systems function—how people and nature function together. That is one model. Some of the other people I met there are citizens. Some are farmers and some are bird-watchers. They start to take on this broader representational interest.

It was not clear to me how the whole thing was funded—probably in Sweden centrally or regionally through government, I would imagine. How they emerge, I am not sure. But when I was at the Gothenburg conference there was a conference workshop that Christine Alfsen-Norodom ran. There were probably people from 15 of these biospheres from around the world. You could see the same sort of leadership commitment there in many of those people.

They are strongly representational of multiple interests and willing to tackle that as the big issue. The bringing of people together and working out the shared ground seemed to be a common aspect of that. If you are looking for people, I think they are going to come from those sorts of folks, whoever they might be, rather than maybe some of the more conventional leadership pathways that rise up to run organisations that we all work in.

MS PORTER: Could you talk a little bit more about the “no regrets” approach.

Mr Kearns: I will give you my view on that. A “no regrets” approach is when there might be uncertainty about the outcome but, by doing certain things, there are long-term benefits anyway. A classic example would be around climate change. People who started doing something about that 10 or 15 years ago, even while uncertainty was high at that stage, would have benefited from putting into place energy efficiency measures or new ways of doing things.

There is a sense of, say, going through a planning process, as we did a few years ago in trying to get an urban cooperative research centre up and running on urban environments and health between Tony McMichael at ANU and Tony Capon in Sydney and ourselves. We decided to take a “no regrets” approach.

Even though we knew it would be difficult to pull this off, given views on CRCs having commercial outcomes, we knew it was going to be a great thing in order to build networks. We knew this was a really important problem and it was not going to go away, so we took the “no regrets” approach. We eventually pulled our submission for a CRC because we realised that it probably was not going to be successful, given that it did not show strict commercial gains. But we knew that he would attempt to do this through another means.

That is an example of the “no regrets” approach. If you were to go down this pathway, you do not really know what the outcome would be because you do not essentially have control over it. But it makes good sense to put into place a lot of the thinking and planning and a lot of these geographic information systems and this community engagement anyway.

THE CHAIR: Are you suggesting that the program is far more organic than we may perceive at the moment?

Mr Kearns: Perhaps I would see that. I refer, for example, to the long-term ecological research platform that Guy described in Phoenix and Baltimore. We see tremendous opportunities to do that in Canberra, for all the same reasons that Guy has used as the biosphere. There is some sort of alignment here between a number of different ways to tackle these complex natural resource management problems we are all surrounded with. As well as that, we can turn urbanisation from a threatening process into an enabling process and look at it to create human health and wellbeing, a healthy habitat and things like that as overarching goals.

Yes, by pursuing the overarching goal, which is human health and wellbeing—life in urban landscapes—there are various mechanisms, some of which might work well,

some of which may not, and some of which need considerable funding. But that will not happen. Given that one area is pursued, another area needs to be pursued.

I think there is reason to think it is going to require innovation to bring people together and catalytic funding that aligns other people's funding so we are all heading the right way. That is a complex problem. I think there is a bit of "bet hedging" going on. Is the urban biosphere the best way to go, is a long-term ecological research approach the best way to go, or what? I think that is a very open question.

THE CHAIR: That was going to be my next question. We have had submissions from stakeholders suggesting that there may be alternative ways to promote sustainability. Do you think biosphere reserves are the best option?

Mr Kearns: I do not think it is necessarily the best option. I think it is one of the better options in order to achieve, say, urban sustainability, but I do not think it is necessarily the only way to go. I think it is a very useful way to go, particularly when you can get connected to international networks that become recognised like that. I think that is a very interesting way to go.

For example, we have now been invited to join an international network of comparative urban research sites around the world. They would love us to use Canberra as our focal point. For us that is a good opportunity. We could see opportunities through a biosphere route, a long-term ecological research route or some other sorts of routes. I do not think there is one answer to whether it is the best option. I think it is one of a number of options that could become more viable.

DR FOSKEY: Thank you very much, chair. I also want to commend you for the way you have set the room up—because on TV you can see the faces of the people we are talking to for the first time.

THE CHAIR: Thank you.

DR FOSKEY: I am of course very interested in what you say. One of the things that made my ears prick up when I was upstairs was when you used the word "neighbourhood"—the importance of the neighbourhood. I also heard you talking here about the kinds of groups that might be catalysts.

I am aware of a number of such movements in the community—active people and so on. Perhaps you would not mind expounding on the importance of action at the neighbourhood level and setting up demonstration models, education centres or whatever. That is what a movement that both Mary and I have been involved in called the SEE-Change movement is trying to do. Can you say how you balance that bottom-up movement with government aims which may be somewhat different from what those people want—different ideas of sustainability—and what we are doing. Have you got any thoughts on that, or have you seen any examples of this interaction?

Mr Barnett: The focus I was describing at the neighbourhood scale has really come about by taking a systems view to think about how we solve a whole range of problems through to childhood obesity or whatever. By just taking a single domain focus to that type of work, you only get part of the answer.

The focus on neighbourhood is really understanding. I will use the example of some work we are doing, which is looking at childhood obesity. It is really trying to understand what a neighbourhood is to an individual. Generally in a lot of neighbourhood research, administrative boundaries are used—local government area, suburb or the like.

If you gave someone living in a neighbourhood a pen and paper, it may not be the way they would actually draw their neighbourhood boundary. Our work is really about linking people to that neighbourhood landscape scale, understanding how they actually define their neighbourhood and trying to understand how they actually interact with their urban environment. A lot of that occurs in that kind of neighbourhood scale, but obviously they are also interacting more broadly within the urban environment and elsewhere as well.

Really, it is coming from the focus on understanding interactions and how people interact with their physical environment and the way that physical environment then influences a range of outcomes that we are interested in at the time. At the moment it is in the way the physical environment influences human health outcomes. I do not know whether you wanted to comment, Allen, on the bottom-up versus top-down approach there.

Mr Kearns: I think it is incredibly important to be able to bring those two perspectives together, because often they miss each other completely. What we have noticed, coming from a strong environmental science background over our careers—and mine much longer than Guy's, unfortunately—is that we are starting to engage much more strongly with social scientists, with community people and with all sorts of other people who have knowledge. It is that sort of recognition of knowledge. I do not have to tell you, because I know that you know a lot about this type of area, but it is a recognition.

Everyone brings knowledge to a problem, whether they have a scientific background, are professional in some area, are people in practice, are people in community or are indigenous people. It is how you work it out, through whatever sorts of systems thinking tools that can bring those ideas together. You go through some collective learning processes where people start to see the value of other people's perspectives. Out of that, you get some emergent understanding of the nature of the problem, which then reframes it for everyone.

We start to see that once we have moved from the scientist as expert in a white lab coat model, where I started my career, through to scientist engaged with people in participatory action research and engagement. You start to be able to build up different ways of looking at the world. Similar, I think, to the top-down approach.

That is one of the things we see with spatial frameworks. If you were upstairs, you may have been able to see some of the slides. Setting up a spatial and systems framework is a kind of top-down way of organising the different perspectives and being able to then test some of the trade-offs between what some people might see as a value for these sorts of landscapes and biodiversity or production factors versus others.

It is how that is brokered, how it is facilitated, to go through that learning process. And then what is able to come out of that in terms of actions or changes in the way people manage resources—how much a government department would be willing to change its practices or an industry would be willing to look at a new design of its facilities, for example, is based on that collective learning type process.

THE CHAIR: Do you think it will stimulate behavioural change among stakeholders?

Mr Kearns: Yes. We actually see a lot of that. It has been quite illuminating over the last 10 years or so, since I have come to CSIRO, to see these types of techniques engaging people, and just that mental mapping of the different perspectives people have when they come from these different backgrounds with strongly different value systems.

You can start to see the lights come on as other people realise what is common ground, what is really different about the things that are valued, where the areas of conflict might be and what can be then negotiated towards a more common understanding. I think that brings about behaviour changes in the way things can be done.

DR FOSKEY: I recently went to a really interesting conference—communities and governments in partnership—in Melbourne. One of the presentations given was by a little group of consultants that worked particularly with local government councils in Melbourne. They described an exercise they did in St Kilda where there was conflict over a park—I do not know, but you can tell me if this is relevant or not—used by homeless people, drug users, sex workers and, of course, the local community—and how to resolve that.

These people described in detail how they worked through this. They started off by giving everyone a camera. Basically, they asked people to give up a whole day one weekend and then another day the next weekend. They gave people a digital camera and asked them to photograph what was important in and around that park. They then went through a process where they came to see that everyone's issues were important, whether they were a drug user or what, and that there were a whole lot of needs that needed to be accommodated by that park.

It cannot have been easy, and I am not sure how it worked out. But what happened was that people, or different groups, came to an understanding of other people's issues. A plan was gathered at the end from this community. They started with their photos and they had a community mapping exercise where they all worked together. They came up with a concept for the park and the local government did it. Is that sort of thing of any use in what we are talking about?

Mr Kearns: Yes, it is. We are starting to see similar things, where people work out something that would be different from what was planned, but it has actually resolved some conflicts and it opens up other possibilities for people. Everyone gets a bit more of what they wanted. Some people are obviously not going to get as much as they were going to get, but others are going to get a lot more. So it is much more of an equity transfer, I guess, or a much more equitable way of engaging people in a design

process.

DR FOSKEY: It is a community development exercise at the same time.

Mr Kearns: Yes, absolutely. I think, from what we have seen of how biospheres work, that that is a really important point. But you have to take the time to get it right. You cannot mandate that something will happen by such and such a time; it is actually around a different way of governance happening.

THE CHAIR: I guess at some point the question of funding always comes up. You have indicated that an organisation outside of government of course would be best placed to coordinate education, training and research and those activities relating to a biosphere reserve. But what about the funding issues? Your submission says that outside organisations can get consumed with funding tasks. You have also said that there may be a need to have minimal contributions from the commonwealth government. How do we organise funding for such a reserve?

Mr Kearns: That is a tough question, isn't it? That is a very good one. Perhaps, if this were able to be taken on board and explained adequately to people, people in government—at the federal level perhaps, and yourselves—would see the strong parallels between a lot of the urban environmental management requirements, the long-term land management goals through natural heritage trusts and various other mechanisms that are out there that could be aligned because they have similar goals.

THE CHAIR: Parallel programs.

Mr Kearns: Yes, like parallel programs. I have seen catalytic funding in a small foundation that I was involved in with the Cowal gold mine. We recommended that, and the company set it up. It was actually set up as a governance arrangement outside of the company. It was to operate, effectively, outside the fence line of the company. It was to engage with regional communities with the goal of biodiversity, conservation, sustainable farming systems and things that are needed there.

Once that mechanism was set up, lots of people who were in governance at different levels started wanting to put funding into projects, because they could see the alignment, whereas they were apart before. It is like an independent broker, a knowledge broker or a governance system that people can all be a part of, as set out from government, industry or even the community itself.

It has given a mechanism for aligning what amounts to large amounts of money that we all bring, and then we all work in different places. I think it is that alignment that would be worth while pursuing. That is why I think it is a seven-year type of time frame. If it happened much quicker, that would be great. But it is the catalytic funding to get it going that is probably the key, rather than the overall funding, that is required. A lot of that would, I think, naturally align itself.

We are starting to see this from talking to the ACT Planning and Land Authority, for example. They have enormous knowledge and resources, if we were able to align together. It just needs some catalytic seed funding to get something going, because you are bringing together knowledge and work that happens anyway—data sources

and all of that.

THE CHAIR: I refer to the timing of it. You have talked about the seven-year process. Are you suggesting, finally, that the nomination is not made until the seventh year or that, if we make the nomination early, it may not be granted a reserve until that time line?

Mr Kearns: I do not know enough about the processes and procedures to give a clear answer on that, but I think it is one of those things that may well be staged that could be notified. I am just guessing, knowing Christine Alfsen-Norodom, that you could actually start to notify and then build up a case. It is this “no regrets” approach that is being taken. Then, as you build up a case, you would document it to the state where it would be able to be designated at some time in the future.

I have certainly seen that in a World Heritage area that I was engaged in. It took quite some time to work through all of the dynamics before a case was eventually developed and was successful. But it would not have been successful first time around.

THE CHAIR: Thank you very much for coming in and presenting to the committee. If we have any questions for you, we will get them to you as soon as we can. We will get a copy of the transcript to you as soon as we can as well.

OTTESEN, MR PETER, Executive Director, Sustainability, Department of Territory and Municipal Services

THE CHAIR: Thanks for coming in this afternoon, Mr Ottesen. Were you here earlier when I read out the witness card?

Mr Ottesen: No, I wasn't.

THE CHAIR: All right; I will read that out again. The committee has authorised the recording, broadcasting and rebroadcasting of these proceedings in accordance with the rules contained in the resolution agreed by the Assembly on 7 March 2002 concerning the broadcasting of Assembly and committee proceedings.

Before the committee commences taking evidence, let me place on the record that all witnesses are protected by parliamentary privilege with respect to submissions made to the committee in evidence given before it. Parliamentary privilege means special rights and immunities attach to parliament, its members and others, necessary to the discharge of functions of the Assembly without obstruction and without fear of prosecution.

While the committee prefers to hear all evidence in public, if the committee accedes to such a request the committee will take evidence in camera and record that evidence. Should the committee take the evidence in this manner, I remind the committee and those present that it is within the power of the committee at a later date to publish or present all or part of the evidence to the Assembly. I should add that any decision regarding publication of in camera evidence or confidential submissions will not be taken by the committee without prior reference to the person whose evidence the committee may consider publishing.

Once again, thanks for coming in, Mr Ottesen. Would you like to make an opening statement?

Mr Ottesen: Yes. I am appearing before this committee as the officer responsible, within the ACT government, for giving advice on biosphere reserves and any projects which may arise from that; however, I am not in a position to give comments on behalf of the government, as you would understand.

THE CHAIR: Yes.

Mr Ottesen: I am very pleased to attend today. I thought that I could make a few comments and observations about some of the points made at the roundtable discussion which the conservation council and you hosted on 3 November. I am also happy to answer any other questions that I can. I should say that there are a couple of issues—or at least one issue—which came up in a previous presentation which I might be able to elaborate on as well. I am happy to do that. Are you happy for me to proceed in that way?

THE CHAIR: Yes.

Mr Ottesen: The important thing I observed at the presentation was the different

levels of understanding of what a biosphere reserve is—its role, how it is to be created, its benefits and what have you—there were among the various participants. I was a bit surprised in a way, because I thought that the discussion paper that you had presented and circulated was a very comprehensive description. It was probably more a reflection of the fact that many people are busy and probably did not have a chance to read it and give it the attention it is due. That signals—to me anyway—that, if this committee were to make a recommendation to pursue a nomination, a communications plan would be very much an important element of that. A little later, I will address the issue of what that might look like. But first I want to address four points; I will not take long.

First, in the conversations there were questions about the role of the commonwealth. In the ACT, the commonwealth has two roles in this situation. First, it is a body which handles a nomination and passes it through to UNESCO, on behalf of the community. That is the role that it handles right across the country. But in this jurisdiction it is also a major stakeholder: because it is a large tenant and a large owner of land, it is a large business and therefore it does need to be involved.

I did have some conversations with the Department of the Environment and Heritage, one of the agencies involved in this, just to get an understanding of that. They certainly confirmed that view. And they reinforced with me that there are at least three main stakeholders. There is the Department of Transport and Regional Services; that is an obvious one. The National Capital Authority is obviously another one. And the third one, which I probably did not appreciate so much at the time, is the Director of National Parks, which is part of DEH; they are responsible for the botanic gardens, and that is an important asset in this community. An important message is that people need to understand the role of the commonwealth and deal with that openly.

The second observation I made was that concerns were expressed about how a biosphere reserve nomination or declaration could frustrate existing planning processes. People wanted to know whether there are there any regulatory impacts and asked why a regulatory impact statement is not being done now. On the last point, in the process of government we do regulatory impact statements after we have thoroughly analysed and investigated an option or series of options. That is the time to get an understanding of the costs and benefits. It is premature to put forward such an option at this point in time. I think that Dr Ishwaran was very clear in emphasising that there should not be any regulatory or any other impediments in place as a result of a nomination. In fact, he made the point that some people criticise a biosphere reserve nomination because it has no legal basis: it has no regulatory impact, and therefore some people see it as a weakness. But he did emphasise the flexibility of what a nomination or a declaration can be and also the importance of process in terms of coming forward with an outcome.

I checked, I think as you have done, and I have read the UNESCO question and answer area. There is some clear advice there. I will read out some of the key sentences or phrases which I have extracted and which I think are worth reminding ourselves of. The first one is that reserves are “not the object of a binding international convention or treaty”. That is an important point. Secondly:

UNESCO does not require any change in law or ownership; each biosphere

reserve has its own system of governance to ensure it meets its functions and objectives.

The third point is:

For most countries it is not necessary to enact special national legislation for biosphere reserves but rather to use the existing legal frameworks for nature protection and land/water management.

And the fourth point is:

Only the core area requires legal protection and hence can respond to an existing protected area such as a nature reserve or a national park.

THE CHAIR: Do you think those particular statements would alleviate some of the concerns that we have heard in our submissions from rural lessees and—

Mr Ottesen: I think that that is something. Those sorts of points will need to be emphasised in many ways, according to the audiences. I can address that when I get to the bit about communication.

Next I would like to address what was mentioned during that meeting. I think you just asked a question of CSIRO about the process or the timing—the timetable. The way UNESCO operates is that each year they receive nominations; they assess them and make a decision in October of any year. My understanding is that, if we go through the Australian government, they would wish to receive something at the end of the year before—or the start of that particular year, let's say.

Bearing that in mind, and working back from a particular time, if it is suggested by CSIRO that 2013, being the centenary year, was an important time, there are two main options. Would you want to have it announced or a decision made during that year and announced in that year—which would be towards the end, in October—or would you prefer to have it decided in October of the preceding year, ready to announce at the start of the centenary year? They are the options.

The next point I would like to address is the issue of communication. I do not think it can be over emphasised that it is really important that all stakeholder groups understand and feel comfortable about the concept of a biosphere reserve and how it will affect them, in either a positive or negative way. I had some discussion about this issue with our communications staff in the Department of Territory and Municipal Services, because I thought it was fairly important. There are, obviously, conventional ways of undertaking communication programs, and they should be addressed. It is also worth noting that the department did give some money to the conservation council this year with this in mind. There was a grant made to allow them to facilitate community engagement and raise understanding. That should be supported further, we believe.

But it is also worth mentioning that there are a lot of other programs within government that can be used to progress understanding. One which came up in conversation concerned children. We are finding that running programs that engage children is a very powerful way of spreading messages to older Canberrans. I do not

need to explain why, but that is the case. For example, we now have a sustainable schools program running in the ACT. By the way, that is a nationally funded program. That program is being run out of my area now. That is very successful. It is aimed at mainly the upper primary and lower secondary children. We are already having success in engaging the education department, and the education department is now keen to incorporate the issue of sustainability into its schools curriculum. There is a great opportunity to incorporate messages about the biosphere into such a program.

That is an example of how we could target various stakeholders through a very deliberate communications program. Another mechanism has been mentioned recently. Canberra will be hosting the next international river health conference for the Murray-Darling Basin Commission. It is a river health conference. The Murray-Darling Basin Commission is one of the sponsors; the ACT government is also a sponsor. The conference will be a large one. There have already been suggestions among some of the participants that a school could adopt the biosphere reserve as an activity and a project which they could use to promote and discuss issues within that environment. That is scheduled for October next year. So there is already interest in this concept within that environment. I am happy to end my comments there and respond to any questions you might have.

THE CHAIR: The first question I have for you concerns your comment on the previous submission. You said you had a comment regarding—

Mr Ottesen: That was the issue of the timing.

THE CHAIR: Yes.

Mr Ottesen: And when is the right time to do it.

THE CHAIR: Yes.

Mr Ottesen: Clearly working to the timetable of UNESCO is the critical thing. That is October of any year.

THE CHAIR: What do you think about the comments that were made in the previous submission in regard to funding for the organisation coming from outside government, with the federal government being involved to only a minimal degree?

Mr Ottesen: From what I have observed and read, and from discussions with people, I think that its success will be greatly enhanced by the level of involvement and support—and therefore ownership—by the various stakeholders. UNESCO is keen to see any nomination come from the stakeholders, not necessarily by one group.

To make it work, if those stakeholders are fully engaged they will feel that they want to contribute in various ways. I think that that can happen. We have certainly given some thought to this as well. I would expect that industry should be willing to put some money into this if they see benefits—in terms of the branding opportunities, anyway. There is a very strong interest being expressed in this town, at least by the Canberra Business Council, that the ACT is not promoting its capabilities in the environmental industry area as well as it could. There are some very large businesses

involved—as members of the Canberra Business Council—who are now aware of this issue and are starting to think and speak about it. I would say that they should be willing to put some money into this, because they will benefit out of it in the longer term.

THE CHAIR: And do you think it is a good way of trying to progress sustainability?

Mr Ottesen: Yes. It is not the only way, but it can be a very powerful way. It represents international recognition of what is here. That will stimulate amongst many people in the community recognition that this place must be special because others have said so—rather than just because we have said so ourselves. Third party certification is always more powerful than promoting yourself. That recognition can be a very powerful motivator amongst parts of the community—not for everyone, of course, but it can be very useful.

THE CHAIR: Can you think of any new lines of research and collaboration that might occur in regard to sustainability that would come out of the nomination?

Mr Ottesen: I think that what CSIRO has presented in terms of urban ecology—understanding how urban environments work—is extraordinarily valuable, and it is not only for ourselves; this is becoming an issue for the globe. All countries and all cities are having greater and greater problems in the way they design and operate their urban environments. It is a wonderful area of research opportunity to look at those systems from an ecological perspective—an industrial ecology perspective. We can learn from that. This community represents a laboratory to some extent, although I do not want to overplay that, because some people might be a bit offended by the idea that we are a living laboratory. But the ACT—its design, its size and, perhaps more importantly, the expertise that is in this town, which is very unique—does lend itself to undertaking that research.

THE CHAIR: Ms Porter.

MS PORTER: I want to go back to the idea of the children and get you to talk a little bit more about how you see that.

Mr Ottesen: It was just an idea. We think that, as I said, if the concept is to go forward it is going to be fundamental to have a communications plan and strategy built in right at the beginning—not halfway through or at the end, trying to sell the result; it needs to be built in right at the beginning and it must continue through. It must identify the main stakeholders and interest groups, and it needs to develop messages for each of those. I think you heard at the roundtable that some people have certain views about it, and messages need to be targeted at them, and other groups have different views. The need is to try and raise awareness so that everyone has a common understanding. Through that there will be a greater propensity to participate and support.

I was using schools as just one example, or one stakeholder group. We have an education system here which is very well advanced. The education system is saying to me that it is now keen to support the sustainable schools program. They want to bring this into the curriculum more formally. That is a critical decision point. We know that

teachers are overloaded with all sorts of things, but once it is in the curriculum it is there. That program is being run out of my branch. It is a way in which at the moment we can get messages about our water, energy, climate change, greenhouse and waste delivered into schools in a coordinated way. The biosphere reserve concept is another story that can be told. And of course, as we are told and as we have experienced as parents, children can be great agents of change at home.

MS PORTER: Indeed.

THE CHAIR: Thank you very much for coming into the committee and presenting again. We will get a copy of the transcript to you as soon as we can. We will take a short break.

Committee suspended from 2.50 pm to 3.00 pm.

HARRUP, MS TRISH, Director, Conservation Council of the South East Region and Canberra

ANDERSON, MR IAN, Board Member, Nature and Society Forum

THOMAS, MR KEITH, Office Manager, Nature and Society Forum

THE CHAIR: I reopen the hearing of the Planning and Environment Committee's hearing into the proposed nomination of the ACT as a biosphere reserve. I will read the witness card before we begin. The committee has authorised the recording, broadcasting and rebroadcasting of these proceedings in accordance with the rules contained in the resolution agreed by the Assembly on 7 March 2002 concerning the broadcasting of Assembly and committee proceedings.

Before the committee commences taking evidence let me place on the record that all witnesses are protected by parliamentary privilege with respect to submissions made to the committee in evidence given before it. Parliamentary privilege means special rights and immunities attached to parliament, its members and others necessary to discharge the functions of the Assembly without obstruction and without fear of prosecution.

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Again, I thank you for coming in. We already have one submission from the conservation council. Would you like to begin with an opening statement?

Ms Harrup: Thank you. I have not prepared a formal opening statement. I refer the committee to the written submission which the conservation council has already provided. I would like to just give you an overview of the project that the conservation council will be delivering, then I will introduce Ian Anderson and Keith Thomas from the Nature and Society Forum, which is one of the member groups of the conservation council. The Nature and Society Forum originally proposed that the ACT should look to nominating as a biosphere reserve. We will provide you with some background and perspective from their community organisation.

As the members of the committee are aware, the conservation council has received a small grant from the environment grants program to conduct some work, basically working with the community to gauge support for the nomination of the ACT as a biosphere reserve. I am in the process of finalising that grant and how it will be delivered, but I am very pleased to say that three consultants have approached me who are very keen to deliver this project. They bring together a terrific range of skills and they are actually going to deliver this work primarily pro bono. They have skills in world heritage nomination processes, in communications and writing, and in community consultation.

One of the very first things we will do with this project is produce some information products about what it means to be an ACT biosphere reserve. That came out of the roundtable that was convened by the committee recently and that drew together members of the business community as well as conservation and environment organisations. I think members will agree with me that coming out of that meeting it was quite clear that there is not a very good understanding of what it would mean to be a biosphere reserve—what the benefits would be and what it would look like. The first step would be to produce some succinct and understandable information that would communicate that to a broad range of stakeholders.

We will also convene three public forums. At those forums we want to gain an understanding of community issues to do with the nomination of the biosphere reserve and to workshop those issues. From that we will produce a final paper. The project is not—as has been incorrectly reported—to convince the community that the ACT should be nominated as a biosphere reserve. Rather, it is to work with the community and gain an understanding of their position on that issue. That is the project and I will be very happy to answer any questions about it after you have heard from the Nature and Society Forum.

I would also like to note that in beginning this project I started some conversations with members of the public who have participated in the nomination process for other areas that have been nominated biosphere reserves. That has been very interesting, and it is something that we will continue under this project, but it has become evident that the groups have had strong support from their local federal members of parliament. That is an issue that we need to address in the ACT—whether or not that support is there and how it can be made apparent to help with the process of the nomination of the ACT as a biosphere reserve. I will now hand over to Keith.

Mr Thomas: I would like to talk about the Nature and Society Forum—who we are and what our interest in the biosphere reserve is—and then make four points which follow on from the presentations of the CSIRO and Peter Ottesen earlier this afternoon.

The Nature and Society Forum is a community-based group that was founded in 1992. It has members in all states, but the majority of our members are in the ACT. Our vision is healthy people on a healthy planet. This is where we believe we are unique: we are concerned about human health and we are concerned about planetary health, but we are also concerned about the interaction between them and how the health of each is dependent upon the health of the other.

Our way of operating is primarily educational. We are not so much a lobby group or a pressure group. We are concerned about informing and educating people about the basis of human health and planetary health in plain English. We do this through meetings, our websites, our journal, books, courses, conferences and the like, with the aim of helping people to take action and make choices about their behaviour that are positive in encouraging them to further help others.

The biosphere reserve has been one of our projects for a number of years. We held a public forum in Canberra in March 2003; earlier I sent the committee a copy of the brochure that we produced for that. We had a public meeting in February 2006 which

you attended, Mr Chairman, when Pam Parker from the Riverland Biosphere Reserve spoke. From what I have said about the Nature and Society Forum, you can see why we have promoted it: it is about sustainable development, which is really about the interaction between human society and the natural environment, with a way to achieve the best outcomes for each.

The Nature and Society Forum is one of a number of community groups in Canberra with an interest in the broad environmental area. With other community groups like ourselves, we and our members are interested in contributing to the nomination process and in being what the CSIRO called “vigilant champions” once the ACT becomes a biosphere reserve.

Peter Ottesen was talking about funding. The biggest sink for funding is salaries. There is a huge source of volunteer expertise available, considering the large number of retired people in Canberra with very high expertise, not just in technical areas but in organisational matters. That and the other issue that Mr Ottesen mentioned, about alignment of funding, should be able to alleviate some of the budgetary concerns.

The four points I want to make are these. First of all, I was very impressed—I think the committee were as well—with the CSIRO’s presentation, but I see that as an indication of the expertise in Canberra that we can draw on. We can tap into those people and, we can assume, people in the universities to ensure that we have a dynamic, effective and meaningful nomination—and tap into them for the reserve itself, once it is going. As well as that, people like Mr Ottesen look after the government aspects. In his presentation, he looked at a lot of things which I must admit we would barely even think of. He is covering those sorts of bases. So we can draw in a lot of expertise to make a good rounded nomination and management process.

The CSIRO presentation did present a slightly different geographical view of the biosphere reserve from the one we had. I may be wrong, but I got the impression that they were not so much talking about the whole of the ACT as focusing on a core—actually a group of sub-cores—around the Canberra urban area.

We are not committed to any particular solution to this, but our original proposal was that Namadgi would be a core, that the buffer zone would be between Namadgi and the urban settled areas, and that the urban areas would be the transitional areas. That is a very simple way of interpreting those three zones. But I am actually very taken with the CSIRO view of having places—they instance Red Hill nature park—in some way linked as cores within biosphere reserves. I am very attracted to that idea. If that can be done, that would be fantastic. It is a great idea.

They also hinted at another point that I would like to bring out: the strong links between biosphere reserves. There are very close to 500 biosphere reserves now; the numbers fluctuate. The resolution of the sorts of problems that we discussed earlier about community consultation and the like are steps that other biosphere reserves within and without major urban centres would have gone through. Once we are in the process of building up a nomination, I am sure we would have a fast track to that sort of information and those experiences.

There is another area where I would differ from the CSIRO's presentation. They talked about the possibility of a seven-year nomination process. We do not think that is necessary. Ian has experience with some other biosphere reserves, and he may be able to talk about that. I am certainly attracted to the idea of having the Canberra centenary as a part of the biosphere reserve nomination process, but I would like to see the biosphere reserve fully under way so that the people who come to Canberra for the centenary, and the people who think about Canberra, think about it as a biosphere reserve and come to see how the biosphere reserve is working—not just as a promise but as something that is actually in operation. That is all I wanted to say. I will hand over to Ian.

Mr Anderson: I would just like to comment on a couple of things Keith raised. He mentioned the federal support. We did consult with the National Capital Authority from the very early days, and their executive director, as far as I know, expressed full support for the biosphere proposition. Certainly there was consultation. Professor Boyden went and saw a number of people and so on and was assured that they supported it, so perhaps there needs to be some follow-up on that. They should also be prepared to contribute some funding, especially for the parliamentary triangle for which they're responsible, so it seems to me entirely reasonable to expect a financial contribution as well. I think I did mention that in a written submission but am repeating it to reinforce it.

Keith mentioned links between different biosphere reserves; I think that's an excellent idea. Again, one of the key advantages of the biosphere reserve program is that it's an international program. There are any number of national programs and activities, but the big advantage is that it links these similar biosphere reserves all around the world. One of the people from Mornington suggested that the ACT could link with a developing country biosphere reserve as a positive example.

That brings me to another point that I mentioned informally to Keith: we should all be aware of the huge change in the potential biosphere reserves that has occurred in the last couple of months with the raising of climate change from an abstract scientific concern to a concern of everybody. The biosphere papers 10 years ago were referring to it, and one of the ideas was that by comparing the core with the other areas you could work out how much damage was happening, and climate was very in there.

It would seem that it could be a wonderful vehicle for getting some more action on climate change, now that that it is on everybody's lips, because a global network already exists. It has been concerned with scientific monitoring of things like numbers of species, declines, increases, changes in rainfall, changes in snow cover on mountains. Again, Canberra is ideally placed because of our mountains and monitoring the amount of snow cover and so on—not only monitoring that but, with the world network, trying to get some concerted action.

That is quite important and Australia should be standing up at the next MAB council meeting and pointing out that the nature of the environment has changed because biosphere reserves and many of the other scientific things that we've been concerned with until now have assumed a constant environment. We've talked about looking at plants and animals and birds, but it has all been done on the assumption that the climate wasn't going to change—it was only changing our ways that was going to

change. Now we've got a much more complex equation, and I think again biosphere reserves are an ideal vehicle for looking at this change.

Keith mentioned the nomination times again, the kind of seven-year one. I've never heard a nomination of that time. It can be quite a long process from when an area first decides to nominate. Barkindji is the latest Australian one to be nominated in the inland areas of New South Wales and South Australia. I don't think that took more than two years or so from the time it was first talked about until it was actually approved.

I would hope that if it was decided to go ahead with the ACT one a similar timetable of a couple of years would be the aim. You might gain a slightly more complex nomination form by delving into every scientific detail, but I'd be fairly comfortable that anyone that Australia or Canberra was to put up would be right up there with the best anyway and would gain considerable steam. There are a number of significant events in the ACT coming up now, like the 100 years of the nomination of the Yass-Canberra area as the ACT capital. There are good reasons for trying to link in with that. They are the comments I have.

THE CHAIR: Thank you very much. I might begin by asking a few questions of Mr Anderson, just looking at that time line that you've indicated of two years. There were concerns, of course, from our previous submission from the CSIRO that there may be not enough communication and stakeholders signing on the nomination. They have talked about seven years, as you've said, so I think they're indicating out of that that they believe there may be not enough time to do it earlier. Would you like to comment against that?

Mr Anderson: It would be good to look at what happened in the case of Barkindji. The federal officers could inform us of how the process of nomination came about. I was associated with the bookmark nomination a long time earlier. I did in fact attend public rallies when they occurred. It was an extension of an existing biosphere reserve, but the existing one had been a national park—nothing more—so there was no community living in that one. So it can be done in a relatively short time if it gathers momentum.

It is a bit like climate change; you need a key event—a slide show, an article in the newspaper. For example, an article linking biosphere reserves and climate change could just be such a trigger and you might find suddenly that people are aware. Again, local television—an ABC television show and interviews or something like that—could quickly raise awareness.

THE CHAIR: Climate change, as you've said, has just come to the forefront in the last couple of months. Do you think something specific has occurred that has raised its profile. I think most people were aware—

Ms Harrup: I can answer that one. It's taken over a decade of grassroots work and effort in that area and a few key triggers, but one has been the drought. People have become very aware of the fact that the climate has changed, and has changed in a way that is having an adverse impact on their lives, and are starting to look for the reasons to explain that.

A popular movie has been released by the Hon. Al Gore, which I think has helped in having an easily understood format that people can go to and learn about what is otherwise a complex science matter; and a report from an esteemed economist from the UK showing that the cost of ignoring this issue could be very great. If you lined all those up, I think you would see an explanation as to why climate change has come to the fore in people's minds.

Mr Anderson: Just another issue to embellish what you've said: I happened to be talking to a barber a couple of days ago and the topic came up. He was from Scotland. They don't have a drought there but everybody there has noticed how much hotter it is, that there is not as much snow—the snow melting and so on—and the fatalities in Europe through heat recently. So people around the world are noticing.

THE CHAIR: We can even reflect back to a symposium that I attended on Namadgi national park a few months ago. There were indications there about the change to the snowline and how species were dying away that used to live in that snowline.

MS PORTER: Do any of you want to talk a little bit more about the idea of the schools and the children—whether you feel that they could be used—particularly with regard to your particular program of forums and things like that? Do you see that maybe fitting in? Also I want to make a comment about the volunteer idea. I was wondering if you saw younger people getting involved. You talked about retired people being involved in giving their expertise and offering that, and you mentioned a couple of areas where you thought that might be possible. Could we see younger people volunteering, coming to the fore and helping the committee with this? I was also wondering if you want to make any comments about your experience with volunteers and the shortage or otherwise of them, given that other organisations that I've had contact with say that there is a growing problem of the baby boomers not necessarily engaging when they retire. Those are a few questions that you might like to address.

Ms Harrup: Can I just clarify your question at the beginning. I just didn't hear. Was it just generally the schools, children, or was there a particular—

MS PORTER: Peter mentioned before the idea of us having a communication problem, as it were, from the forum—you've rightly identified that there was a lot of confusion around there—and I perceived that what he was saying was that he thought we could involve young people and be more involved in getting out to the schools and talking about it with young people and in that way spreading the message. Young people sometimes get these things quicker than adults do.

Ms Harrup: I might comment on that and then allow Keith to comment on volunteers. The ACT has a sustainable schools program. There are 20 schools at the moment engaged in that program. I would suspect that would be an ideal forum to take the issue of an ACT biosphere to. A biosphere reserve reflects what they're trying to achieve at the school level in terms of integrating sustainability into their decision making, their education and how they operate their school. They're attempting to involve students, parents and teachers in that process.

In terms of our project, the schools are not a key stakeholder that we have identified, but I would be happy to include talking with the convenor of the ACT sustainable schools program, because I think that would be a very effective way to tap into the schools network.

Mr Thomas: Just further on the schools too: although there are 20 schools involved in it, I believe there were more that wanted to be involved in it and they had to limit it to 20 because of their own resources. It's very important, as Trish mentioned, to have these school communities involved too. Some of the schools in that sustainable schools project are doing that extraordinarily well.

You mentioned younger volunteers. In my experience it's always easy to get into the primary schools and it's easy to get their attention, but once the youngsters get into secondary schools and they start to kick over the traces at about years 3 and 4, some of them are inclined to forget, or even to deliberately go against, some of the principles they've been taught in primary school. So there's a little bit of a problem there, a bit of a discontinuity. That doesn't just apply to environmental matters but everything to do with their behaviour in society et cetera; I think we're all familiar with that.

The Nature and Society Forum has had difficulty, certainly, in recruiting younger members. We have some, and we are just about to begin a recruiting drive with a focus on younger ones. There are a number of voluntary groups associated with, for example, the Australian National University. There's ANUgreen and what's called the Human Ecology Forum. Human ecology is what people from the CSIRO were talking about earlier this afternoon, and there are some very active people in there who are also involved in community projects.

I don't think any community group is going to turn away members or say that it has enough. I wouldn't despair about the potential for getting younger people of all ages involved in the biosphere project, particularly if we can rope them in with their parents; that is, the parents might just provide transport or support them in the activities they're doing. With that background, that won't bring in all but it will bring in a good proportion of leaders who can then perhaps attract others.

THE CHAIR: Thanks. Ms Harrup, in the early part of your presentation you talked about communication strategy and how you now have a program for three public forums. What is the time line for those?

Ms Harrup: We hope to conduct the entire project within the first half of next year. I would be interested in understanding the committee's timetable as well. We would hope to conduct the three public forums around March-April, which would allow us February to promote them and then to report by late April-June. Do the committee have a target date for your report?

THE CHAIR: We hadn't formed a particular deadline for the report. As you've seen, it has taken quite a while to get the issues paper up. It's probably worth while for the committee to have more hearings and get more stakeholder comment before we try and finalise a final date. But we certainly would be interested in the results that you have from the public forums and I express the committee's interest in attending those.

Also we'd be interested in seeing how your final paper comes out.

Ms Harrup: You will certainly receive invitations to those forums and we will provide you with a copy of the report for your comment prior to our finalisation of that, and then we would make it available to the federal government as well.

THE CHAIR: Just back to something else that has been discussed, and that is, I guess, the regional size of the nomination. Originally, Nature and Society Forum indicated looking at, as you've said, Namadgi national park, the other parks and then the urban area with the three structures within it. We've seen, as you heard earlier on, CSIRO try and designate it as an urban area within the ACT—perhaps residential areas. Do you think that had an effect within their presentation of looking at the longer time line? They suggested that we should try and nominate it as an urban biosphere reserve rather than a normal biosphere reserve. I probably should have put the question to them, rather than you, but I'm wondering whether they're thinking along the lines that it may take longer because it will be a different style of nomination.

Mr Thomas: I could even venture an opinion off the top of my head on that. If we were to proceed with an urban biosphere that didn't embrace the areas a fair way outside the Canberra urban area, that would be something quite different from what has ever been attempted before. In our own nomination I think we mentioned that Rome and Paris are at the same stage as Canberra in considering and nominating their own cities as biosphere reserves. The CSIRO today mentioned Cape Town and one other—I forget its name.

MS PORTER: I thought they talked about New York.

Mr Thomas: Yes, that's right. That would be another urban biosphere, so that's slightly different. There are some criteria for the way the zoning is arranged. Whether the CSIRO's proposal would be consistent with those I'm not sure; you might recall they showed a couple of slides that were taken off the website that showed the core and the buffer and the transition zones. I understand there's a requirement that the core should be surrounded by a buffer zone. We might have to be pioneers in that if we proceeded with the CSIRO's model. It's not a reason for not doing it. In fact I've said I'm very attracted to having those Canberra urban nature parks designated as part of the core, and if we could achieve that it would be tremendous for the biosphere program itself.

THE CHAIR: Do you think that if we were to leave out such areas of nature parks, such as Namadgi and Tidbinbilla, we might not be able to take advantage of some of the benefits that we've seen in other biosphere reserves, such as tourism and other types of branding?

Mr Anderson: Could I just make a comment on that. In the early stages of talking about the ACT nomination, Professor Ken Taylor was a member of the planning committee and he was very strongly of the view that the special feature of Canberra was that it was a city in a landscape; it wasn't just another urban city. That would include the mountains, for example, if you were looking at climate change—studying those patterns. So I think he for one would support the idea of just putting the urban areas up as a nomination. Certainly they should be there. Another view that was put at

that time was that Canberra in a way was seen as the bush capital and if you excluded the bush you would be losing a special part of it. I don't know whether CSIRO suggested not including that or just that there would be a focus on the urban area. I didn't hear their presentation.

Mr Thomas: It wasn't clear to me whether that was the case or not.

THE CHAIR: There's an indication that the zones may change after the 2008 UNESCO conference.

As there are no more questions, thank you very much for coming in and presenting, once again, to the committee. We really look forward to hearing the times and dates for those public forums, and also your final paper, but I imagine we'll have some more time for conversations before that.

The committee adjourned at 3.35 pm.