LEGISLATIVE ASSEMBLY FOR THE AUSTRALIAN CAPITAL TERRITORY

STANDING COMMITTEE ON ENVIRONMENT AND TRANSPORT AND CITY SERVICES

(Reference: Nature in our city)

Members:

MS S ORR (Chair)
MISS C BURCH (Deputy Chair)
MR J MILLIGAN

TRANSCRIPT OF EVIDENCE

CANBERRA

WEDNESDAY, 8 MAY 2019

Secretary to the committee:
Ms Annemieke Jongsma (Ph: 620 51253)

By authority of the Legislative Assembly for the Australian Capital Territory

WITNESSES

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Amended 20 May 2013

The committee met at 3.00 pm.

REEVES, MR MICHAEL, Director, dsb Landscape Architects

THE CHAIR: I declare open this fifth public hearing of the Standing Committee on Environment and Transport and City Services inquiry into nature in our city. The committee announced this inquiry on 6 December 2017 and has received 71 submissions, which are available on the committee's website. This is the fifth of seven hearings that will be conducted between March and May 2019. Today the committee will hear from dsb Landscape Architects, Riverview Projects, the Australian Institute of Landscape Architects and the ACT Young Planners Division of the Planning Institute of Australia.

On behalf of the committee, I would like to thank all the witnesses for making the time to appear today. Before we begin, on behalf of the committee I would also like to acknowledge that we meet on the lands of the Ngunnawal people. I pay my respects to their elders past, present and emerging and extend a welcome to other Aboriginal and Torres Strait Islander people who will be here with us today.

We will now move to the first witness appearing today, Michael Reeves from dsb Landscape Architects. On behalf of the committee, thank you for appearing today and for your written submission to the inquiry. I remind you of the protections and obligations afforded by parliamentary privilege and draw your attention to the pink-coloured privilege statement before you on the table. Mr Reeves, would you confirm for the record that you understand the privilege implications of the statement?

Mr Reeves: Yes, I saw it beforehand and, yes, I confirm that I am happy to work under the privilege statement.

THE CHAIR: Thank you. I also remind you that proceedings are being recorded by Hansard for transcription purposes. However, we are not broadcasting live today. I note that slight difference for anyone who has appeared previously before a committee. Mr Reeves, would you like to make any opening remarks?

Mr Reeves: Yes, I would. Thank you very much for the opportunity. It is a wonderful city that we live in. It is something that we need to protect. I am very much aware of the changing nature of the landscape in the city, as a consulting landscape architect in town. Dsb Landscape Architects have been in town here now for 40 years. We are responsible for a lot of the significant projects around town. The latest one is the light rail corridor. Some of the historic ones are Glebe Park and many other projects throughout the city.

We operate principally within the commercial builder environment. We provide development application plans for major projects across the city and we are intimately aware of the nature of development, the landscape that goes with it and the planning environment which accompanies that. We are aware of the changes in the system that have happened over time.

Since self-government, the priority that has been placed on landscape within the

building and development process has been impoverished to such an extent that there is virtually nothing left. It is incredibly difficult to get good quality landscape outcomes from the current planning rules and development guidelines.

There is also a significant issue at hand with regard to the Tree Protection Act, in that it is a tree removal act. In my written submission I put forward a proposal that we add an additional criterion for the removal of trees, that there be the opportunity for a like for like replacement. That is particularly to look after the trees that are in the wrong place and the need to allow for development. That can then provide an opportunity for a different tree in the new development without impoverishing the landscape.

There may be also an opportunity for an offset system. If the new development cannot accommodate a new tree, there should be a donation similar to the parking levy, whereby you can donate the value of a tree to the government so that it can be planted elsewhere. This is if you are taking out a tree, so that there is no net loss to the urban landscape.

I have also been following the new planning strategy 2018 and particularly the provision for densification in the RZ1 and RZ2 areas. That is particularly concerning because if the planning authority use their authority to override the conservator's entity advice, no tree in an RZ1 or an RZ2 area under redevelopment is safe.

I would also like to comment that the multi-unit housing development code, as it currently stands, is seriously deficient. When you look at criterion 40, under the rules—element 4.4, landscape design—there is no applicable rule. If we are a city and a landscape, how can that honestly be justified?

The criteria in C40(b) make reference to the planting of trees with a minimum mature height of four metres. In any multi-unit development block, how tall is four metres? That is first floor. If we only have rules and criteria that allow for us to plant a small shrub, how are we ever going to have any tree canopy across the city? It is not good enough. When we work with developers and they ask, "What are we legally obliged to provide?" we go back to the development code. We say, "That is what you are legally obliged to provide."

What is also of concern is that when you get to the requirements for open space, RZ1 and RZ2 state that not less than 20 per cent of the total site area is planting area. It is not a requirement to plant trees, not a requirement to plant shrubs; it is a requirement to provide dirt and mulch. Similarly, in RZ3, elements 4 and 5, the total site area is 20 per cent open space, and not less than 10 per cent of the total site area is planting area.

There is no requirement in the multi-unit housing development code, other than applying to courtyard walls, that actually requires you to plant any plants. The courtyard wall rule says, "Thou shalt plant shrubs in front of a courtyard wall." That is the only place in the multi-unit housing development code where you are actually directed to plant any material.

My evidence here today is to say that the system, as it is, has been gutted. We used to have a landscape policy that said, "When you get to something, you do this." This

policy applied to leased and unleased territory land.

THE CHAIR: Just for the *Hansard* record, Mr Reeves is holding up a copy of the former policy, which is quite extensive.

Mr Reeves: It is the Canberra landscape guidelines from 2000, yes.

THE CHAIR: Have you concluded your opening remarks?

Mr Reeves: Yes.

THE CHAIR: I have been asking a lot of the first questions, so I will be kind and let my colleague Mr Milligan have the first question today.

MR MILLIGAN: You mentioned in your submission that the landscape has changed, the built environment has changed, here in the territory, and that developers seem to be taking full advantage of what land they do develop. You say that if you compare what is being developed now in our new areas with what was the case previously, you would quite easily see that there is a significant decrease in the amount of green space, trees and so forth, that is being adopted into new developments now. How has this policy failed? Where did it go wrong?

Mr Reeves: It does not acknowledge that the private leases are the most significant contribution to tree canopy and to landscape character across the city. There are substantial motherhood statements in the planning policy, from the planning authority, with regard to canopy, streetscape and urban open space. But they ignore private lease.

There seems to be a demarcation dispute somewhere in this city between the planning authority and urban treescapes, whereby the control of the treescapes has been abrogated to urban treescapes and control of planning has been abrogated to the planning authority, and neither the twain shall meet without recognising that both of them are integral to the city and to the city's character and landscape.

THE CHAIR: You said that private leases are a large source of the urban tree canopy and that perhaps the rules are not growing to the same extent as they previously did to achieve the outcome. I am paraphrasing your words. Is there a question there about whether the streetscape, the public realm, is also a part of that, and that the guidelines are not governing those enough to get the right outcomes or the preferred outcomes?

Mr Reeves: My first residential estate was Bonython estate, back in about 1984. At that point in time we were looking at 25-metre wide frontages. We were getting anywhere up to three trees across each block frontage and at that particular point in time the electrical infrastructure was such that one mini pillar was providing for anything up to about eight to 10 houses.

The electrical load now is such that one mini pillar provides for four houses, the frontage on a block is now 12.5 metres and the ability to actually put a tree in that location is one tree in between the driveway and the next driveway. If for some reason there is an electrical pillar or a sewer manhole or a stormwater manhole in that space, the tree is excluded. Where you used to have two families with six trees and 25 metres

of frontage, you might now have six to eight families on the same frontage and half as many trees.

THE CHAIR: As we move to a more compact urban form, because that is where the city has been going—this is the central question of the committee of inquiry, so I am interested in your view—as we move to a more compact city form that comes from a more urbanised form, how do we keep nurturing the city?

Mr Reeves: Exclude services from the verge. Put them into the road. The primary driver of services not being in the road underneath the asphalt has been maintenance, but I have never seen a service in a footpath dug up in my 24 years in the city. Seriously, the amount of cost involved in losing landscape character, landscape tree canopy by excluding trees from verges because of offsets to services based on a spurious maintenance claim, is something that should be challenged.

THE CHAIR: I am interested in this, as it goes back to the private leases. You made the comment that the developers—this is essentially going to their attitude—will ask what the minimum requirement is. Is that the norm in your experience or—

Mr Reeves: That is the norm. Also, they are looking to maximise their site coverage, and in maximising their site coverage the spaces that are left over are significantly smaller than what might have accommodated a reasonable size tree. There is also the consideration that large trees require a large area of land to actually support the trees.

The urban treescapes documentation that came out last year, the year before, was looking at a eucalyptus tree. A hundred cubic metres of ground surface is actually required to support a eucalypt. The same criteria were used in establishing the amount of ground and the spacing of the trees up Northbourne Avenue for the light rail corridor.

If you do not have 100 cubic metres of soil there is no sense putting in a large tree, because it will not survive or it will come in conflict with building structure, fences, neighbours. Besides, with small houses, small setbacks and small open space courtyards, one person's southern-facing block or southern end of a block is the solar access for the person on the other side of the fence. If we start growing large trees in close proximity to everybody there will be nothing but people yelling and screaming, "My solar access has been denied."

MR MILLIGAN: It is obviously very hard to retrofit existing suburbs with that principle.

Mr Reeves: Yes. But the thing is, though, in looking at subdivision design, maximising the economic development and the economic return out of a subdivision is a very simplistic way of looking at the benefits of landscape to the city and the economy as a whole.

THE CHAIR: What do you see some of those benefits being?

Mr Reeves: Just the electrical infrastructure. As I said, there used to be one electrical mini pillar feeding eight to 10 houses in a suburb. We now have one electrical mini

pillar feeding four houses.

THE CHAIR: That is not quite what I was getting at.

Mr Reeves: The electrical demand is there because there is no shade from trees and we ultimately disappear in a catch 22.

THE CHAIR: Sorry, that was not actually my question. You said the benefit of the landscape is lost to Canberra. What I am asking is: what do you see the benefit of the landscape being to Canberra?

Mr Reeves: At present we have large trees which provide a canopy and which extend beyond the roof line of most of our residential development. If we close the landscape down and we are restricted to smaller and smaller trees, we end up with a landscape very similar to Harrison. Harrison was the first of the small-block subdivisions and the change from large trees to small trees on verges. Other than the wide streets, with large areas of eucalypt planting in Harrison, most of the street trees around Harrison are Pyrus. Most of those trees will not grow taller than the roof line of those houses. That suburb at the moment is basically roofs, not tree canopy.

MR MILLIGAN: What could you do in that situation in Harrison? What could you suggest—a different type of tree planting or—

Mr Reeves: Harrison is lost.

THE CHAIR: That is a bit pessimistic.

Mr Reeves: Sorry. If there is insufficient space in the ground to support large trees then going through and replacing the Pyrus with a larger tree is an opportunity to fail.

THE CHAIR: Are there opportunities beyond large trees that you can see? We have heard from quite a few people, and we had the Fenner School, for example, last week, who came in and said certainly the tree canopy is very important, particularly for biodiversity, but ground cover and shrubs are actually also very important, and it is a mix. Obviously, there is a lot of focus on the large trees—and I can see you are very passionate about that—but I would like to go a little beyond that because I think it is a fair question that Mr Milligan has asked.

Mr Reeves: If you were going to retrospectively address a small-block subdivision like Harrison then what you would do is: in each section you would take out two houses back to back and turn it into a pocket park and plant three or four eucalypts, and do that repeatedly across each of the sections and provide a spotted canopy insert into the suburbs.

THE CHAIR: You picked my patch of the world. I get a little upset when people start dissing it, because I think it is a little better than some people give us credit for.

Mr Reeves: It was the first of the small-block experiments and everybody tried very hard. It is just that there are obvious shortcomings that are coming forward now.

THE CHAIR: There is quite a lot of green space in Franklin. I am in Franklin.

Mr Reeves: Yes, Gungaderra Creek, Old Well Station track and all those places.

THE CHAIR: And even green areas through there. Is there, do you think, opportunity to improve or to address some of these issues through the green spaces that are there?

Mr Reeves: Old Canberra has a rather homogeneous feel to it. The canopy and the green space, both public open space and private open space, melt into a continuum across the city. What we are getting to now, where we have "this is development, this is open space", is providing us with a patchwork.

THE CHAIR: And in your view is it because—"prescriptive" is not the right word—there were such strong guidelines to guide the management of the two interfaces?

Mr Reeves: At present we do not have a landscape policy. Queanbeyan City Council has more of a landscape policy than we have. And that is embarrassing.

THE CHAIR: The Australian Institute of Landscape Architects, who are appearing later, have raised this quite significantly in their submission. We have also had it in other submissions that a landscape policy or a landscape plan for Canberra would be beneficial. Did you have anything that you would like to add to that? What would you see that plan covering?

Mr Reeves: Yes. There was a proposal 15 years ago to provide landscape master plans for every suburb. That did not come to fruition. The intention of those landscape master plans was to map out the intent of the landscape for those particular areas.

THE CHAIR: This is greenfield areas?

Mr Reeves: No, these were existing suburbs. The first one they were going for was Forrest, particularly down through the Blandfordia areas and the heritage precincts, because they could see that the heritage precinct was specifically related to landscape content. The intent was to provide a landscape master plan so that they had a reference point, so that any redevelopment or otherwise that was going on within those areas could be referred to.

THE CHAIR: I am a planner by profession. Master plans get floated a lot all over the place.

Mr Reeves: But the reason it was—

THE CHAIR: They are not always the be-all and end-all.

Mr Reeves: The reason it was lost was—

THE CHAIR: But is there anything else you see? Are master plans the only way to achieve this or do you see other alternatives as well?

Mr Reeves: Policy documents can be in any way, shape or form. The latest planning strategy comes out as a nice, glossy brochure. The Canberra gateway framework document deals with landscape, and the manner in which the Northbourne Avenue corridor is envisaged is a lot better than I have seen in any planning documents to date. Seriously, it looks at landscape as a three-dimensional construct, as a continuum and as a progression from the border through to the city.

THE CHAIR: So, as well as having a policy there that really guides the shape of the urban landscape in particular within the city, would I be right in my understanding that it also needs to be imbedded within the planning system that essentially enacts it so that there is a not a disconnect between the two?

Mr Reeves: Yes. The worst thing about the Canberra landscape is that the trees and the planning have been separated. The only time they come together is when the assessment officer ticks the box to say that there is a landscape plan as part of the DA submission.

MR MILLIGAN: How do you believe that the architects and the landscapers would benefit from such an initiative—by having a landscape policy and plan?

Mr Reeves: It is the difference between having some sort of direction and, as it is at the moment, just laissez-faire.

MR MILLIGAN: Who would develop that policy or initiative? Who do you think should contribute to that?

Mr Reeves: The whole community should contribute to it. The builders and the developers have just as much interest in it as us, as citizens and professionals. It is a community thing. It is about us.

THE CHAIR: Mr Reeves, in your opinion, do you think that by having a landscape policy and having it realised through the planning and development codes, we have a much better opportunity to get a joined up and healthier landscape within the urban area in Canberra?

Mr Reeves: If it is only connected to development then it will only apply to new works across the city. It will not necessarily apply to everything else—

THE CHAIR: So there is a question there that—

Mr Reeves: and at the moment we are fast approaching a stage where we no longer have greenfields. Whatever development we have in the city will be redevelopment.

THE CHAIR: Will be infill.

MR MILLIGAN: But how could you develop a new policy or initiative for our existing suburbs and regions without a huge impost or cost to the government or the economy?

Mr Reeves: You start with the landscape management plan, which basically identifies

what you have got, how you use it, how you wish to use it, how you wish to use it in the future and what maintenance requirements are necessary to take it forward. New South Wales uses that for every parcel of crown land within the state. Every oval, every bit of open space that is crown land that is used by the community has a management plan. We used to have management plans in the ACT. Do we still have them? Have they been abandoned for some reason? Is there some reason why we are not prepared to put forward how we wish our landscape to go forward?

MR MILLIGAN: I would like to ask a question on the removal of trees. You are suggesting that if you want to remove a tree, you plant a new tree. What are the requirements there? Are you suggesting a new tree in the same location or a different location? Do you sponsor a tree to be planted anywhere else in the territory?

Mr Reeves: The Tree Protection Act, as it is currently worded, is an interim act that was supposed to be in place for a short period of time whilst the city identified all of those trees which were to be registered. That never happened. Consequently, we have an interim act which was designed to stop people removing trees, so that an assessment could be made of those trees that we chose to actually legislatively protect. That has been bastardised and it has morphed into something which does not do what it was intended to do. At the moment it is basically a piece of legislation that regulates tree removal.

The issue is that we should be protecting our urban forest. The urban forest is a continuum. We have trees planted, trees grow up, trees die and trees are removed. But what is important is that the forest continues. The most important thing about the tree protection legislation is that it should protect the continuum, not the individuals. It is about the forest instead of the trees. Each individual tree is important in its contribution to the urban forest. But it is not critical to the continuation of the urban forest because if we plant trees at the same time as we take out trees then there is no loss. There is also net benefit, because as we recycle our urban forest it becomes healthier and healthier. As we have developed Canberra, each suburb has an even aged stand that grows up, matures and dies at the same time and presents huge maintenance costs to the government and to the community.

It is like the urban forest assessment that was done a couple of years ago. When you look at the trees and you look at what we have got, we are at the moment at peak tree. We really do not have the advantage of everything that was done 50 to 80 years ago. We are absolutely loving it. The trouble is, though, that in 10 years, all those trees will start crashing down. Suburbs like Griffith, Manuka, Forrest et cetera will be back to what they looked like in glass plate pictures—federation houses in grass squares with sheep across the back fence. Sorry, I am being facetious—

THE CHAIR: Being dramatic, yes.

Mr Reeves: but the management of our urban forest is about managing a living, growing, dying system. It is about maintaining the dynamic, not focusing on the individual. As I said in my submission, if we are not going to completely rewrite the tree protection legislation, I would suggest putting an additional criterion in there for tree removal that says, "If you take one out, you put one back." How that goes back, I will leave it to you guys to decide—whether it is an offset, whether it is a payment,

whether it is a levy or whether it is a requirement to actually plant a tree in a similar location. That is just regulations. The concept is: if you take one out, you put one back. Let us keep our forest.

THE CHAIR: On that note, we have come to the end of our time.

Mr Reeves: Thank you very much. Thank you for your indulgence.

THE CHAIR: Thank you, Mr Reeves. As our scheduled time has come to a close, on behalf of the committee I would like to thank you for appearing today on behalf of dsb Landscape Architects and for your submission into the inquiry. When available, a proof transcript will be forwarded to you to provide an opportunity to check the transcript and to identify any errors in the transcription. I do not believe there were any questions taken on notice. Once again, thank you very much for appearing today.

Mr Reeves: Thank you very much. May I remain in the gallery while others give evidence?

THE CHAIR: Absolutely; you are welcome to stay. We have actually got quite a decent audience today. It is a bit exciting.

Mr Reeves: Thank you very much. It is certainly a privilege to be able to contribute to everything that we love and work with every day of the week.

THE CHAIR: A good part of committee activities is that you get that opportunity.

SHORTHOUSE, DR DAVID, Peer Reviewer (Environment), Ginninderry Project, Riverview Projects (ACT)
CUMMINGS, DR JASON, Adviser, Ginninderry Project, Riverview Projects (ACT)
ADAMS, MR TONY, Planning Consultant, Ginninderry Project, Riverview Projects (ACT)

THE CHAIR: We will now move to Dr David Shorthouse, Dr Jason Cummings and Mr Tony Adams, representing Riverview Projects ACT. On behalf of the committee, thank you for appearing today and for your written submission to the inquiry. Can I remind you of the protections and obligations afforded by parliamentary privilege and draw your attention to the pink-coloured privilege statement before you on the table. Could you just take a moment to look over that statement and then confirm for the record that you understand the privilege implications of the statement.

Dr Shorthouse: Confirmed.

THE CHAIR: Can I also remind you that the proceedings today are being recorded by Hansard for transcription purposes. Did you have an opening statement?

Mr Adams: Yes, if we may. I am a planning consultant. I have been working with the Riverview group on the Ginninderry project for a number of years and I will present, if I may, a brief opening statement and then I will take questions. All three of us, particularly my two colleagues here, will be able to answer those.

A PowerPoint presentation was then made.

If I may commence, the Ginninderry project is pleased to be able to make this presentation. I should say that we are here on behalf of the Riverview group, which is the project manager for the project, and what we are presenting is on behalf of the Riverview group. The project is a joint venture between Riverview and the ACT government. What we are saying here is on behalf of Riverview rather than the joint venture. It is not an ACT government presentation. Again, thank you for the opportunity.

The *Canberra Times* quite recently interviewed Robyn Coghlan, who is president of the Ginninderra Falls Association. Robyn said, among other things, "Should housing be the priority over the environment?" She said that in reference to the project at Ginninderry. That was a good example that I was able to put up, I think, that this is not a one or the other argument, that Ginninderry has taken a triple bottom line approach to its project, addressing social, environmental and economic objectives concurrently.

In our case the social objectives particularly relate to the demand for affordable housing. That is a very strong social objective which we are trying to meet. Secondly, the environment that sustains the city must be conserved. The environmental imperative is very strong in the project. Thirdly, both those things need to be achieved in an economically viable fashion; otherwise it does not work for anybody.

We believe that we are meeting those triple bottom line objectives, and that was

brought home to us by a letter received from the Australian government Department of the Environment and Energy a week or so ago. The letter was to do with some conditions associated with our EPBC approval. But they took the trouble in that letter to also say that the urban development and conservation corridor at west Belconnen or Ginninderry is an outstanding example of sustainable development with strong environmental outcomes. We are told that that sort of endorsement from the commonwealth is unusual, and we are pleased to receive it.

I will give a few details of the project. It is a large site and it is at west Belconnen. This is a plan showing where it is. What is particularly important is that the master planning for the project site was preceded by detailed scientific studies over that entire area, which is about 1,600 hectares.

They are some of the environmental reports that are being completed—and I do not expect that you will be able to memorise those—but they illustrate the depth and breadth of work that has underpinned this project. All those have been peer reviewed and they are all done to a very high standard. They are all available on the Ginninderry website if anybody wants to look them up and read them. Following quite a mammoth amount of detailed investigation work, including by a wide range of scientific experts, we ended up with the definition of a conservation corridor, which is shown on that plan. It includes all the biodiversity and cultural values on the site that warrant preservation.

All the urban requirements would then be placed in the balance of the area, including things like bushfire protection measures for the urban area, or being contained on the urban side of the line. That meant that the conservation corridor ended up being almost 600 hectares, extending in both the ACT and New South Wales. It was 36 per cent of the gross area of the site. There is of course lots of other open space within the urban area. In total it adds up to more than 50 per cent, but the conservation corridor itself is 36 per cent. The ACT portion of that corridor is now in place, following the rezoning of the land in 2016 under the Territory Plan. The New South Wales rezoning is anticipated later this year or early next year. It is well in train.

With the definition of that corridor being, if you like, set in place, we were then able to proceed with master planning for the urban area, and all the area that was not identified as having significant biodiversity and cultural value was then available for urban development. Importantly, however, doing them in parallel meant that the urban development was designed in a way that was complementary to the conservation corridor. The two travel together, if you like, so we ended up with an integrated, systemic outcome.

The conservation corridor, I think, is the main message of our presentation. The conservation corridor is now established and it is to be run by an entity called the Ginninderry environmental management trust, which is now established. The trust will have a board and an independent chair. The board will include skills-based community representatives, and we are, I think, interviewing potential members as we speak—or within the next few weeks. There will be two Aboriginal representatives from the Ginninderry Aboriginal advisory group which has been helping us with the project. There are two reserve positions for the ACT and New South Wales governments and Yass Council, and those representatives will appoint an independent

chair.

We have a body that has a board and an independent chair. It will manage the reserve in accordance with the management plan. The first step in the management plan for the first five years has been approved by the ACT conservator and the environment minister. The management plan will be periodically reviewed. It requires re-approval every five years at least, through a public process with public input. It will also include input and approval input from New South Wales agencies because it does include New South Wales. Again, that is available on the website.

The funding for the corridor is also important. It has its own funding stream, including capital contributions equivalent to one per cent of the sales revenue from the project, a levy on rates in the New South Wales portion and an equivalent payment from the ACT treasury. We will also be able to attract funding from other sources, such as licensing fees, car parking and the like. All that funding will deliver approximately $2 million per annum forever, once the corridor is completely opened. That was deemed to be, after a very careful analysis, sufficient to manage this land forever.

The outcome for nature conservation of that corridor is that in the before situation we had 1,600 hectares of mostly agricultural land, degrading biodiversity values, no recognition of Aboriginal cultural values, no public access and no community say in the future. What we have now is 600 hectares of conservation reserve, identification of all biodiversity values, and full recognition of Aboriginal cultural values and their ownership of and participation in the future management. It will be open for public access and community input by way of input to the community-based management trust, which will continue, hopefully at a very high level. That is the conservation reserve, and that is only a small part of the project.

There are a number of other things happening that are quite relevant to the inquiry that you are conducting. Our interpretation strategy goes across both the conservation area and the urban area. Signage and information will flow through from one to the other and will be seamless. Front yard landscaping will be done by the project for all residents for free, and that means that we can control the nature of planting and so on.

Water sensitive urban design strategy is quite significant. There will be 42 ponds and wetlands through the project, each of which will be a very significant little piece of urban amenity, apart from having all their water management functions.

In collaboration with the ANU Fenner School, we are doing some groundbreaking research into the management of remnant trees within urban areas. Urban agricultural and community gardens will be a strong feature of the whole project. The first community gardens will be constructed shortly. On all our landscaping we have been working with ACT for Bees and we understand bird-friendly landscapes and the like.

I could, in fact, talk on the subject of your inquiry for most of the afternoon, but I will not. To summarise, Ginninderry has been planned systemically, and that is the important thing, I think, with a master plan for the whole site. That has enabled both natural and urban components to be properly dealt with individually and to be integrated with each other. On that, I will close with a painting from Elioth Gruner of a portion of the site which he did for us in 1936. Time for questions.

MR MILLIGAN: Thank you for that opening statement.

Mr Adams: The first version was 50 slides.

THE CHAIR: I could probably sit here all afternoon and listen, to be honest.

MR MILLIGAN: I am really keen to hear a little more about your stormwater management strategy and how that contributes to the landscape. Does it even go as far as contributing to your sporting fields or grounds? How is that managed? What have you put in place?

Mr Adams: With the whole cross-border situation, this is one example of the management of the issues that we needed to deal with along the way. So we have a conservation corridor that, in fact, goes across the border.

Dr Shorthouse: No, stormwater, Tony.

Mr Adams: Sorry, did you say stormwater?

MR MILLIGAN: Yes, stormwater.

THE CHAIR: Would you like to repeat the question.

MR MILLIGAN: How are you implementing the stormwater management strategy? Where is it being used? Is it contributing to your sporting playing fields?

Mr Adams: I misheard. Again, the stormwater strategy is detailed and complex. I am not a stormwater expert, but when you urbanise an area you get lots more stormwater. The nature of Ginninderry is that it is a plateau falling off to the river, with the Murrumbidgee on one side and Ginninderra Creek on the other. Most of Canberra is in valleys, so we have quite a different situation.

The valleys in Canberra drain into, for example, Yarralumla Creek or Sullivans Creek. I think we have about 30 little creeks running off the site. The water needs to be managed in those creeks, but the primary issue is making sure that the quality of water when it hits the river or creek is up to the standards, and there are high standards. There are ACT standards and regional standards. We are meeting the regional standards, which are a higher level for water quality.

All of those creeks run through the conservation corridor. Essentially, they are ephemeral streams, so they are pretty much dry. We need to ensure that the quantity and quality of water through those streams does not change substantially. There has been a parameter set, based on the number of wet days increasing by only a small number. I forget what it is, but making sure that they do not become permanent streams is quite important. For example, where they are in pink-tailed worm-lizard habitat, the lizards can no longer cross the creek and things like that. So maintaining that regime is quite important.

That is achieved with wetlands and ponds essentially around the edge at the top. There

are 42 of them proposed. Each one of those is something like the one in O'Connor. We then will be taking water out of the ponds and using it for irrigation within the urban area, within the public realm. That is a particularly fraught regulatory situation because as soon as that happens we become a water authority. There are all sorts of regulatory issues surrounding that. They are being worked through with Icon Water and with TCCS. But we hope to use that water for irrigation because there are enormous public amenity benefits in using it. Also, it actually means that the ponds do not have to be as big. They will still be there but they are less costly to build.

MR MILLIGAN: You are putting in that infrastructure yourself to ensure that you can draw on that water and use it.

Mr Adams: Yes.

MR MILLIGAN: Obviously, that is more economically viable than to use potable water or drawn water from our system to irrigate open spaces. Will that water also be used on sporting fields or playing areas?

Mr Adams: Yes.

THE CHAIR: Will the water be used throughout the whole estate?

Mr Adams: Yes, it will be used—we actually have more stormwater than we need and getting rid of it is—

THE CHAIR: Is that because you are not in the valley, so it does not have the natural—

Mr Adams: You just create a lot of run-off. When you urbanise an area, the hard surfaces increase. You create a lot of run-off and it becomes a problem. It is the same problem everywhere else. In the Woden Valley you have floods down Ginninderra Creek. We will not have the flooding problem, but we still have the volume problem. We have to get rid of the volume.

MR MILLIGAN: Is that also one of the ideas for the 42 ponds to draw water from?

Dr Shorthouse: Can I add another dimension? Because the stages of the project are over 20 or more years, there is an opportunity in the monitoring program of the ponds and the performance of the ponds and how they drain into the river to modify each stage as it goes through. This sort of monitoring and learning from experience is built into the project. I think that is an important element of what Tony was just saying.

MR MILLIGAN: Would you be able to implement something similar in our existing suburbs? How could you adopt what you are doing there and put it in other areas to make better use of our water systems, to make better use of rainfall?

Mr Adams: The principle of re-using water from ponds and from secondary water already exists in the inner north Canberra system. As you might be aware, the system is already using secondary water, and that is fairly successful. There is no reason why what we are proposing cannot happen elsewhere. There is this regulatory issue that

has to be worked through, though.

THE CHAIR: On a different note, I am noticing in your submission that you talk about the planning philosophy. It has been underpinned by character zones applied to the project area. I am interested to know what the character zones are and how you are using those to get more trees and other types of green spaces into the urban area.

Mr Adams: The author of our submission was Tony Carey, who is the other town planner on the project. Tony is currently on holidays in Western Australia and apologises for not being here. He understands this in more depth than I do, but in simple terms, rather than add amorphous suburbia, we look to create character zones. They are sort of a village centre zone where there is high density—maybe four storeys or something and high public transport accessibility—through to the edge of the site, where it is an urban edge, almost a nature character zone, and a transition in between.

The nature of the plantings in those character zones changes. The streets are narrower and in some places through the project we have adopted a principle of seeking to get the canopies to join over all streets, which is quite difficult. That has involved wider verges and long debates with TCCS and, in fact, agreement with them that we can try things out. Again, the longevity of the project allows us to have an agreement with them. We will try it out. We will leave it for five years. If it does not work, we will retrofit it to their standards.

We are doing things like that. We are trying different tree species and different ways of dealing with the verges. The character zones are more about the sizes of the blocks and the dwellings, but that also implies landscape differences. I think there is more native landscaping where the blocks are bigger.

THE CHAIR: This might be a question for the other Tony, but see how we go. Would it be fair to say that you are using more form-based planning principles to achieve the character zones?

Mr Adams: Yes.

THE CHAIR: Now I have forgotten my supplementary question. I am trying to remember what was just in my head. It has disappeared. The final issue in your submission is on street trees and making sure that there is the space for them. Is there anything you can elaborate on? We have already had a bit of discussion on this earlier, as you might have heard. From your experience, how have you gone with getting that urban tree canopy, noting that you are trying to get different environments across the urban area?

Mr Adams: By allowing a little more generosity in the verge, which is a cost to land take. That is a real cost because it means the whole thing is more spread out. It is only a little bit in each verge but it adds up, and that means that people are further from public transport, they are further from the shops, because it is just more dispersed. There are reasons other than just financial for trying to tighten things up. With regard to some of the verges in Canberra and some of the newer roads in Gungahlin, the main drag into Gungahlin where the tram goes—

Dr Shorthouse: Flemington Road.

Mr Adams: It is about 100 metres wide; it is just huge. You can narrow that sort of thing down quite a bit by a lot of work and a lot of discussion with TCCS and trialling things. We have been doing that everywhere. But in some cases the verges have been widened to allow a larger tree.

THE CHAIR: I think about two slides ago you had a list of all the things you were doing—bee-friendly, bird-friendly requirements for front yard landscaping. You said, if my memory serves me correctly, Ginninderry would be doing the landscaping so that you do get certain plantings. How are you making sure that is maintained so that it is not just planted but is actually well kept?

Mr Adams: Within private land, we hope for the best. With a first home buyer or a new home buyer, the budget is usually tight—even for high-budget homes, the budget is often tight—and the landscaping is often the first thing to go. They do that sometime down the track. To do it for them up-front means we get a better appearance to start with. We also get a better say in the species and we end up with bird-friendly and bee-friendly species. But we are quite confident that once people have a front yard they will maintain it. Some people do not, but 90 per cent of people do.

THE CHAIR: Back to the form-based code, have you found using a form-based code as opposed to the current standards and the current codes that are in place has allowed you to get a better landscape outcome?

Mr Adams: I am not expert enough to know, but I would say that we spent an awful lot of time on the detail and discussions with the agencies to get better outcomes—

THE CHAIR: Is that something we—

Mr Adams: We are probably departing from the code a bit.

THE CHAIR: Is that something that someone like the other Tony—

Mr Adams: Yes, definitely.

THE CHAIR: Is there any chance you would be open to asking him and if you could just take—

Mr Adams: He is a bit out of touch.

THE CHAIR: When he is back is fine, yes.

Mr Adams: When he is back, yes. He will be back in a month, yes. I was going to extend an invitation to your committee to come out and have a visit and see all this stuff. A lot of the landscaping is now completed. Stage 1 is now constructed so that we can show these things on site and what is actually happening.

THE CHAIR: I was interested in the comment you made that Ginninderry was committed to affordable housing and does take that quite seriously and that there is

the levy there. I was wondering how you reconcile the two, given that the levy is arguably a costing position. I say "arguably" because I know the jury is out on that.

Mr Adams: The levy adds a cost. If you like, it is an additional cost, but it is a very small additional cost.

THE CHAIR: I guess the real question I am trying to get at is: how have you been able to reconcile having the levy and achieving affordable housing?

Dr Cummings: The history of the levy in the ACT part of the development for the next 10 years is that we tried to get that up but that did not get supported. There are really no questions about affordability in the levy on the ACT side for the next 10 years. If the levy is supported by Yass Valley Council at the time, it gets administered through Yass Valley Council for that portion in New South Wales for 10 years from now.

Mr Adams: The ACT treasury contribution is equivalent to what they would have spent anyway if they had owned the land.

THE CHAIR: If they had done it?

Mr Adams: If they had owned the conservation reserve, yes. There is $1,500 per hectare per year or something which they spend on average over their reserves. That is not what the number is, but it is calculated on that sort of contribution.

THE CHAIR: That proportion has been put into the trust fund?

Dr Cummings: Yes. The only other part to that response is that in the engagement that we have with the community who are potentially going to buy out there, who are open, we were saying, "There might be a levy on your block, 100 bucks per annum," and there were no concerns raised from any of the potential buyers at the time.

Mr Adams: Twenty per cent of the housing is an affordable product and there is a requirement in ACT projects to deliver affordable housing. It is at a price point, and the typical delivery is a one-bedroom apartment format, which does not suit most people. We took a different approach and designed two-bedroom, one-bathroom cottages for the same price as a one-bedroom apartment. You have got a house on your land.

The barriers to affordability are the deposit gap. That is quite serious. But once they are over that, for an affordable purchaser who has been paying rent, an extra $100 a year, if it were to be imposed, would not be huge. It sits within that range. As Jason says, most people seem to think it is quite reasonable for what they would get. It does not apply in the ACT, but it will over the border.

THE CHAIR: Just for my understanding, to make sure I have got this correct, it has been taken up by the Yass city council and will start in 10 years?

Dr Cummings: Yass Valley Council, to date, have been comfortable with that policy position—that they need to go to IPART for that rates surcharge and get approval for

it. But the development does not get to the New South Wales border until 10 years time. Other people might change the border between now and then as well.

THE CHAIR: On that note, we have run out of time today. On behalf of the committee, I would like to thank you for appearing on behalf of Riverview Projects (ACT). When available, a proof transcript will be forwarded to you to provide an opportunity to check the transcript and identify any errors in transcription. I asked that you take a question back to the other Tony when he returns from his holiday. I do not believe there were any other questions taken on notice. With that, we will conclude this session and move to the next session.

Dr Cummings: Thanks very much.

THE CHAIR: Thank you.

WILLIAMSON, MS GAY, ACT Chapter President, Australian Institute of Landscape Architects
HUTCHINSON, DR PHILIP, ACT Executive, Australian Institute of Landscape Architects

THE CHAIR: Welcome. On behalf of the committee, thank you for appearing today and for your written submission to the inquiry. I remind you of the protections and obligations afforded by parliamentary privilege and draw your attention to the pink-coloured privilege statement before you on the table. Could you please confirm for the record that you understand the privilege implications of the statement?

Ms Williamson: Yes.

Dr Hutchinson: Yes.

THE CHAIR: Do you have any opening remarks that you would like to make?

Ms Williamson: AILA ACT would like to thank you for this opportunity to give input. We recognise the importance of this inquiry and its significance. Our submission was trying to emphasise the importance of taking a strategic approach to nature in the city and to the landscape and, with that, to qualify and quantify the importance of the landscape and to give it the recognition of other infrastructure that is in the city.

The green infrastructure is incredibly important in terms of climate change and biodiversity and for all those other things that you have been hearing about from other people. Taking a strategic approach is really important in elevating the issues and identifying up front the outcomes that are really important, like biodiversity, climate change and those sorts of things. Identifying those allows for an opportunity to be more innovative in approaches to urban development.

Perhaps, as demonstrated in the last project, there are opportunities to be more innovative in the way things are delivered. It also allows us to integrate actions in urban development and infrastructure in terms of water sensitive urban design and those things. The existing landscape is getting near the end of its life. It is going to need some really innovative approaches to develop it.

Dr Hutchinson: I want to briefly go over the key points from our submission and then do a sort of summary of the recommendations. I wish we had gone before Michael and before the last speakers, because they have gone into detail and we have stayed at the principle level.

The value of vegetation and open space in the modern city is unquestioned. A recent plethora of studies into green infrastructure show that there is a growing awareness of its value. It is not just about aesthetics anymore; it contributes to physical and mental health and it contributes to climate change mitigation. There are economic benefits. The AECOM report in Sydney was very explicit on that, including property prices—but there are a whole range of values. We need vegetation. We need open space. Full stop.

AILA strongly believes that open space and vegetation need to be seen as a system in this inquiry. It is important to consider all types of vegetation and spaces and their interconnectivity. So we are looking at rural landscapes—hills, rivers, buffers—urban parks, street trees and, importantly, private property.

As has been raised before, vegetation is key to the moderation of the effects of climate change. The excellent ACT government climate change adaptation strategy acknowledges this. As temperatures rise, as our city becomes more dense, urban heat island effects become more significant. We need to shade hard surfaces in summer, while allowing winter sun in. That is just a fact. The CSIRO mapping study was brilliant on this. It showed so conclusively where shaded areas cool the ground and cool the temperatures. So we need to manage better proportion and integration of large trees into built form spatiality.

We are concerned that these broad goals as set out in documents like that are not necessarily being met. I live in Forrest. In Forrest we see the change: we see less and less canopy cover; we see more and more hard surfaces. If you look at Google maps of any of the older suburbs, you can see this change occurring. The CSIRO study also showed that the new suburbs were much hotter. There is no getting away from it. Having many more hard surfaces produces a much harsher climate. Our city is changing and more heat islands are being created.

We need and can have a more densely populated city and can have vegetation, but we are of the opinion that we can be clever in how this is achieved. We must be able to make informed decisions about the structure of the city. Essentially, we need to retain high quality vegetation in the face of development pressures in our older suburbs. We have to ensure that there are quality open spaces and room for new vegetation with new developments. We have to identify where vegetation can make the greatest impact and we need to identify low-value open space and turn it to another use. We need to use the scarce public space management budget far more effectively and we need to ensure that this informed decision-making process is enacted consistently and effectively throughout the ACT.

Investment is vital if good outcomes are to be achieved, so we talk about investment. That is investment in planning, investment in mapping, investment in administrative systems and investment in maintenance. I still maintain that people value open space when it is well designed and well cared for. We need to better understand the role and value of vegetation and open space. This is across all segments of the community: our citizens, developers and designers, the public service and our leaders.

Quickly going through our recommendations, the first point is that there needs to be a shared vision here, led by government but shared with the Canberra community. At the core of this is this baseline data. Therefore, we recommend an inventory and mapping of the diversity in the natural environment, including blue and green infrastructure, identifying the critical links to retain the physical and visual connectivity of the open space system and vegetation more broadly. This baseline data needs to be used to set clear goals for open space and vegetation. This is where we would like to see the preparation of an extensive and detailed landscape strategy plan that includes all vegetation types and all property use types.

Second, we need to align the decision-making with the vision, so a comprehensive review of current administrative planning, development and management regimes should be undertaken to identify the barriers to innovation. We need to ensure that those making decisions that affect what happens on the ground are making decisions consistent with the bigger picture and the visions identified in the climate change strategy.

Third—and I think this is where Ginninderry is a fantastic example—we need to find different ways of developing the city, trial new approaches and think about landscape at the start of developments, not at the end. I talked to a developer who said, "The way we can improve prices when we sell off blocks in Sydney is to do the landscaping first." We need to think of landscape first and then work around that if we are to be serious on this. Insist on performance targets for delivering all those services we have talked about—shade, water detention, harvesting, waste and energy reduction measures—and trial cooperative models so that community and public benefits are delivered.

Fourth, we need to invest in the bush capital. We have mentioned mapping, planning, administration and maintenance. We recommend a genuine investment in the urban forest. Finally, engage in genuine consultation. We recommend a community consultation and information program to encourage community understanding and responsibility for the natural environment, similar to a citizen science concept. There are models like this all over the world that work.

MR MILLIGAN: I am quite intrigued about the end of our current landscape in some areas. Trees that get to the end of their lives obviously need to be replaced and so forth. You mentioned that some innovative approaches need to be adopted. Can you elaborate a little more on that? What does that mean? What needs to happen?

Dr Hutchinson: I think Michael addressed this quite nicely. I would put it in a different context. At the moment we look at the tree and say, "This is important. We have to keep this one or we have to keep that one or that one." I maintain that it is the space for the tree that is more important. Instead of legislating for a tree, you legislate for space for a tree. That is about seeing the whole system, seeing how to create a canopy coverage. There are many ways of achieving that. But on an in-principle basis, we just need to have that space so that we can actually retain and develop a canopy.

Ms Williamson: In terms of the urban forest and what I said about integrating actions, I think there is an opportunity when we are replacing other infrastructure in streets to think about how we replace that infrastructure in such a way as to retain trees or to maintain the replacement of trees. There is no doubt that our climate is changing. There is no doubt that some of those trees are not going to be able to survive if they do not get enough water; so we need to be thinking about how we integrate some of the replacement of stormwater, some of those services, so that we actually can maintain or replace those trees in a really cost-effective way. If we are retrofitting streets in existing areas, perhaps we need to be retrofitting the kerb and gutter to allow for some of those trees. As Phil was saying, it is about looking at it holistically and not looking at it one by one.

THE CHAIR: I think it was you, Phil, who made the observation that the broader goals which are outlined in a lot of the policies at the moment are not necessarily being achieved. How can we achieve those, concisely and easily?

Dr Hutchinson: What is that?

THE CHAIR: Concisely and easily—no?

Dr Hutchinson: Do you have a comment to make there?

Ms Williamson: In terms of the broad goals not being met, as I started off by saying, I think there is a lack of integration. I think the comment was made that there is a distinction between planning and landscape. I do not know that I would go that far, but there is certainly a distinction in terms of not understanding the landscape as a system and therefore integrating it into some of those things that I was talking about, so that with the other infrastructure, like the footpaths and those things, there is an opportunity to look at how those things might be done.

I think that is why some of those broad goals are not being achieved. For instance, getting shade over paths is one. I do not think it is being achieved because nobody is actually asking: "How can we integrate the actions: how do we integrate the planning? How do we integrate it to create the place, rather than just look at how we replace the elements?" Somebody will look at the paths, somebody will look at the trees, and they might look at them at different times rather than, as Phil has suggested—

THE CHAIR: So it is about integrating the different elements, yes.

Ms Williamson: Let us look at the whole place and how we achieve that. I think the other reason why it is not being achieved is that—this is a really difficult one—there is no economic value on green infrastructure. I would be the last person to suggest that we need to put an economic value on it, but we do need to place some value on that green infrastructure because it provides a whole lot of ecosystem services.

Dr Hutchinson: I think it would be a bad path to go down just to value green infrastructure economically. I think that would be a mistake. However, we need to acknowledge that—

Ms Williamson: It has value.

Dr Hutchinson: there is a real value. Many reports have come out recently that try to put a monetary value on it. I think we need to recognise that, that it is not just a—

THE CHAIR: What makes you say that it would not be ideal to put a value on it?

Dr Hutchinson: Because invariably, if you only value green infrastructure against an engineering solution, the engineering solution will be quicker and easier.

THE CHAIR: So it is coming down to cost-benefit analysis—

Dr Hutchinson: Yes, and—

THE CHAIR: and indirect costs and not necessarily being able to modify them.

Dr Hutchinson: That is right. We would need to acknowledge that. How do you value shade? Going back to your earlier question, I think of some of the changes that I have seen around my suburb, where blocks are being developed with hard surfaces from boundary to boundary—massive, massive places. Clearly, there is a disconnect with what is being approved on these places and any sort of broader goal for mitigating against urban heat islands. We are creating them all the time, despite the ACT clearly saying that this is our goal—to minimise the heat island effect—and saying that it is of great importance. But we are not seeing the evidence in the way the new suburbs are developed and in the way that the old suburbs are changing.

Ms Williamson: It is really hard to put a pure economic value on a tree. When do you put the economic value on that tree? Do you do it when it is this big or when it is huge? The cost-benefit analysis is probably a more effective way to go, but then the pure economists probably have palpitations about that as well. What value do you place on the health, the social equity that that landscape provides? They really are values to the community in terms of what a shade tree can do to alleviate and create social equity in a community for everybody to be able to afford it.

THE CHAIR: You also made the observation that there is a benefit in thinking about landscape first. Can you elaborate on that benefit?

Dr Hutchinson: I think Ginninderry is a great example of that. When they thought about the landscape, they allocated landscape first and then developed around that. In doing so, they are quite clear about the values. Their set of values is not about achieving absolute maximum dollar but about achieving a better community, a better development. This goes to our point about adopting more innovating approaches to development. I think another example is New Acton. The investment they have put into the landscape there has produced an incredibly beautiful area with really nice, high amenity.

Ms Williamson: I would add that, as we mentioned, in thinking about the landscape first, the landscape is a system. You can think of it as a system and keep the integrity of the system, of the waterway, of the urban forest. You can identify, which was also in the submission, the priority areas for management. In the city we do not have unlimited funds for management, but if you can actually think about it first, you can then think about where are the high priority areas, where are the high maintenance areas and where are the lower ones.

Dr Hutchinson: I think that is the key thing: what is the higher priority? How do we maintain the integrity of the system and still have development? There are plenty of really low quality open spaces around Canberra.

THE CHAIR: Can you give us an example of what you would consider a low quality space?

Dr Hutchinson: The area that is now starting to be developed next to the Forrest Primary School. It is on State Circle.

THE CHAIR: So for us north-siders who might not go down there, could you give us another example?

Dr Hutchinson: I did not know that was sensitive.

THE CHAIR: No, it is not sensitive. I just do not actually know where it is.

Dr Hutchinson: It is on State Circle. It is sort of opposite the Church of England.

THE CHAIR: Okay, yes. I know the location.

Dr Hutchinson: Yes, it is sort of a paddock that somehow has to be maintained. Maintenance is something else I mention. If there is going to be a limited maintenance budget, let us use it wisely. Take out these sorts of lower value areas and focus your energy and effort in high value areas. But that means understanding what your high values are. It means being able to map those and actually plan for those properly.

THE CHAIR: You have put forward the suggestion that a landscape strategy plan be prepared. If that suggestion is taken up and if a landscape strategy plan is developed, how does that get implemented and not become just another policy document, of which at a future hearing you come back and say, "The outcomes aren't being met"?

Ms Williamson: That is always difficult. Having been heavily involved in the first 2018 ACT strategy plan—how do you actually make a plan become more than a policy document? In terms of the strategic plan which has just been revised, certainly in the first one there was: "Let's measure, let's change and in five years time let's put this." There were performance targets in there, and review targets. With the landscape strategy plan, that has to be in there. You have to build into that plan key actions that do not get embedded in the Territory Plan but might be funded initiatives, have performance targets and definitely have a review every five years.

THE CHAIR: What makes you say it should not necessarily go into the Territory Plan?

Ms Williamson: There are some things that you just cannot embed in blanket codes, unless the nature of the plan, which I know is up for review, starts to embrace some of the idea of performance targets rather than merit criteria. There are ways and methods, and in terms of living infrastructure you have to qualify it; you cannot just quantify it, which is a lot of what the codes do in the Territory Plan.

THE CHAIR: In the codes, the way they are written now, it is very much a case of a minimum. You must have met these minimum requirements; you are welcome to go above them but you must meet them. You are saying that on qualitative outcomes it is too hard to get that into the code?

Ms Williamson: Yes, because it is a system and you have to think of the whole, not just the individual blocks. Some things in the landscape as a system you cannot just do—you might be able to do in a—

THE CHAIR: Would something like the guidelines that Mr Reeves spoke about—if you were here for his presentation—be of assistance to realising that?

Ms Williamson: I think guidelines are always useful but you know the adage in the movie *Pirates of the Caribbean*, "Guidelines are always meant to be broken," or something similar. You need to back up some of these things with actions. In terms of what I said at the outset about a strategic plan that guides the management and development of infrastructure being really important: it is used by all entities to guide that, it identifies key projects that are submitted to the central agency for funding, they get that funding for their management, and there are performance targets and reviews. You need that systematic approach to it.

THE CHAIR: Previous hearings have raised things such as experimenting with green roofs or green walls. Particularly from your technical expertise, what opportunities may or may not be there for Canberra?

Dr Hutchinson: I am very sceptical about green walls in particular. They are usually expensive systems that need to be maintained. The EU wrote a report at one point saying it was very hard to justify them either environmentally or economically. You are much better off planting a Virginia creeper up your wall. To me, it still comes back to getting sizable trees, mostly deciduous in Canberra's environment, and allowing the space for those. How you manage that becomes the fight, becomes the difficulty. Green roofs probably have a role but they are still an engineering solution to what does not have to be an engineering problem. That is the way I see it.

Ms Williamson: I think the value of those is for property developers, in gaining a green star rating. They can be a very valuable one-off for that building. Because they are so expensive to look after and maintain, it is something you are probably going to be doing in the bigger developments, not the smaller developments. It is another string to the bow; it is not an end-all or—

Dr Hutchinson: It is not the main game.

THE CHAIR: Is it fair to say that, in your opinion, we should focus less on green walls and green roofs and more on the natural system and making sure it has the space to flourish?

Dr Hutchinson: Yes. Let us manage our city to that end, with clear goals and a systems-based approach to managing our vegetation that flows right through to the lowest level of administration. It is difficult to achieve.

THE CHAIR: We will conclude there. On behalf of the committee, thank you for appearing today. When available, a proof transcript will be forwarded to you, to provide an opportunity to check the transcript and identify any errors in transcription.

McRAE, MS POPPY, Committee Chair, ACT Young Planners Division, Planning Institute of Australia
ADAMS, MS CLAIRE, Committee Member, ACT Young Planners Division, Planning Institute of Australia
YONG, MS JENNIFER, Committee Member, ACT Young Planners Division, Planning Institute of Australia
CHAN, MR SKYLAR, Committee Member, ACT Young Planners Division, Planning Institute of Australia

THE CHAIR: We will now move to the fourth group appearing today: Jennifer Yong, Claire Adams, Poppy McRae and Skylar Chan from the ACT Young Planners Division, Planning Institute of Australia. On behalf of the committee, thank you for appearing today and for your written submission to the inquiry. Can I remind you of the protections and obligations afforded by parliamentary privilege and draw your attention to the pink-coloured privilege statement before you on the table. Once you have had a chance to have a look over that, can you please confirm for the record that you understand the privilege implications of the statement?

Ms Yong: Yes.

Ms McRae: Yes.

Mr Chan: Yes.

Ms Adams: We understand.

THE CHAIR: Can I also remind you that the proceedings are being recorded by Hansard for transcription purposes. Before we move to an opening statement, I would like to declare for the record, in the interests of full transparency, that I am a former member of the Young Planners Division. I am too old to now be in the Young Planners Division but I am still a member of the Planning Institute of Australia. I think it is very well known within this building that that is the case. I have had to declare it a few times.

Do you have an opening statement that you would like to make? Please proceed.

Ms McRae: Before I continue, I would like to note that both Jennifer and I are currently employed by the ACT government and that the information we will be sharing does not reflect the views or opinions of our employer. The young planners committee is made up of planning professionals in the first five years of our career. We are committed to creating great places and testing innovative planning ideas to improve our city.

Canberra is changing. Our population is growing and our city is becoming more compact. We are travelling differently with the light rail and experiencing the impacts of climate change. As Canberra grows and responds to these challenges, our vision is for all residents to have a daily connection to nature and access to varied blue and green infrastructure. This can be achieved through integrated, long-term planning of a connected network of blue and green spaces throughout Canberra. This network

would integrate nature into our daily lives on a range of scales, be it finding shade in the city centre or exploration and discovery in a bush reserve. The network would enrich our biodiversity and also help us to adapt to the impacts of climate change.

Today my fellow committee members are going to provide you with short, medium and long-term actions for how this vision can be achieved and also give best practice examples from other cities that could be adopted in Canberra.

Ms Adams: For our short-term actions we recommend developing a strategic plan for open space in the ACT to establish where we need open space in Canberra, the types of open space we need throughout our city and how this will be delivered through the planning framework over the next 20 years. For example, the City of Melbourne has an open space strategy that sets up the overarching framework and strategic direction for open space planning to create accessible, walkable open space for residents over the next 15 years.

Actions in the ACT open space strategy could include an audit of current green and blue infrastructure, the size, quality and usefulness of our open spaces. That would identify future opportunities for the land we need to protect and the land that we want to develop. Establishing the responsibilities of relevant agencies and authorities to deliver and manage the public open space would be an important outcome of that strategy work.

We note the ACT government has issued a living infrastructure plan information paper to respond to the impacts of climate change in our city and we believe an open space strategy would complement the objectives of the living infrastructure plan.

Ms Yong: The young planners believe it is the responsibility of both government and private developers to deliver more green infrastructure in our city to improve our urban environment and increase our open space, particularly as our population grows and our city densifies. We recommend that government explore methods to legislate minimum green infrastructure provision for new, larger developments to ensure that as Canberra densifies, so do our green spaces.

Learning from other cities around the world, a green roof and wall policy is one solution the government can implement. For example, in 2009 the city of Toronto introduced a by-law requiring all new buildings with a gross floor area greater than 2,000 square metres to incorporate a green roof into their development. The green roof requirements range from 20 to 60 per cent of the building's available roof space, depending on the building size, and must meet the green roof construction standards set by the city. The by-law has been a great success in achieving increased greenery and open space within the city and also in reducing urban heat island effects, enhancing biodiversity and habitats for wildlife and providing opportunities for production and social interaction.

This example has proven that the city as a whole benefits from mandating green infrastructure requirements for new, larger developments. It has also shown that developers are willing to deliver green infrastructure that meets the expectations of government, the market and the community more broadly and that there is an opportunity for the ACT government to implement a similar policy.

Mr Chan: In our long-term actions the expectation we set is focused on the quality of natural open space. The biophilic city movement will adopt development principles that are focused on providing all residents with access to nature. In fact, natural access can become dispensable in a city without any physical interaction and direct connections with living beings, while good connections of each individual green open space optimise the functionality and are, as a whole, good for the biodiversity of the city.

We, the young planners, understand the connection people have with nature. We are definitely aware of how much they care and are willing to protect nature. It is funny that we often design and visualise a natural playground for kids but as a society lack consideration of adult enjoyment and needs for nature.

In terms of recommendations, we recommend that the ACT government join the biophilic cities network in order to share ideas and resources with other cities that have demonstrated good practice in blue and green infrastructures and develop their membership with this network. As part of this network, Canberra is able to follow Singapore's national biophilic cities strategy, which emphasises international cooperation on global matters such as global warming. These are the short, medium and long-term action plans that we recommend to the community and that we believe are going to be achievable in the city of Canberra.

MR MILLIGAN: You mentioned that you would like the government to work towards educating the public more on the importance of green and blue infrastructure. What sorts of community programs would you suggest that the government adopt or use to reach the public? What methods could it use?

Ms McRae: We saw one example in the City of Melbourne. It had adopted a green growing guide. This was specifically for rooftop gardens and also vertical gardens. It was done in partnership with heritage experts, because there are a lot of heritage constraints in the city, technical experts for maintenance and also ecologists to look at the biodiversity in the City of Melbourne. That is a free resource. You can access it online.

I think that if the ACT government could adopt something similar it would really empower people—developers or maybe people who want to retrofit their building—to have the specialist knowledge in what is, I guess, a fairly new technology or a new approach to building design to develop those kinds of programs.

MR MILLIGAN: What about residential—perhaps people that just want to do the lawn? I am talking about what to plant, what to put into place, what shrubs or trees could they put in?

THE CHAIR: Are you thinking of something like a planting guide?

MR MILLIGAN: Yes, like a planting guide. For residential, is there such a guide? Would you suggest a guide for residential individual homes, not large buildings, rooftops or walls?

Ms McRae: I guess that is where the role of an organisation like the Young Planners Division comes into play. It can be about connecting with community. It can be about outreach to community groups and having that resource that perhaps connects with AILA or other organisations. I think it could be a useful tool to develop but also to make sure that it does not just sit on a shelf. It is really great to help people put it into practice.

THE CHAIR: For the record, AILA stands for Australian Institute of Landscape Architects.

Ms McRae: Yes.

THE CHAIR: I go back to the first slide. It is the one on strategic planning for public space, one to three years. This is quite an interesting proposition, particularly as we have just had the landscape architects here. I think you heard them. I know you were in the audience. They made reference to developing, essentially, a landscape strategy plan. Could you see the two being compatible? Would you support AILA's call for a much more comprehensive landscape strategy within the ACT?

Ms Adams: Yes. I think they are compatible. As planners, we would also be wanting to ensure equity of access to the different types of open spaces. So we would propose that we really focus on that audit up-front to see who is accessing what space and what non-human species are accessing it—which ones are maybe threatened in the ACT. There are a few bird species for which this is the last stronghold, but our current plantings are not supporting that population.

We would be looking very holistically. I am sure there are a lot of datasets out there already with the various friends of grasslands and all the organisations, all the citizen scientists that could be pulled in and accessed by ACT government as a really good baseline to find out where the people, animals and wildlife in the city can all have a home and have that daily interaction.

THE CHAIR: There has been quite a lot said by witnesses today and in other hearings on planning and how it does or does not enable landscape within the ACT. Thinking particularly about residential sites, is there anything that the young planners would like to add to this discussion? I just throw it open. I will make it very broad. The sorts of things we have heard are that obviously there is not enough space. That is a common complaint, that there is not enough space being left for large trees. We have heard a little too about plot ratios and having too many hard surfaces within blocks. Are there are any views along those lines as to how planning intersects with landscape and how the two can enable each other, rather than go into combat?

Interruption in sound recording from 4.42.04 to 4.43.44.

THE CHAIR: Is Hansard recording again. Are we back on?

MR MILLIGAN: We are back on.

THE CHAIR: I think we were talking about how—

Mr Chan: Yes, how we would integrate green strategies into residential development. As I was saying, Singapore has really interesting strategies. All cities start planting as much as they can. Some people start planting for vegetation and some people are planting just fruit trees. No matter what, they are starting actions in their backyard or their open space—any kind of private open space—and come together as a whole and start planting in public open space.

This does not affect how high you are going up in terms of residential development because they always can find some ways to plant. As long as there is empty space or public open space, they are willing to come together and start doing those kinds of greening things.

THE CHAIR: There was a comment made by, I think, Tony, who appeared on behalf of Ginninderry. He made the observation that there are trade-offs from an urban perspective and urban outcomes. In leaving larger verges and more space between trees, you do change the form. As planners who work essentially with those urban outcomes, are there any observations you can make as to those trade-offs, where it is not just as simple as leaving a lot of space for a big tree? Are there other outcomes that can be impacted from that and how do we better balance those?

Ms Adams: Definitely. If we have a strategy then we will know which species to plant in particular areas, not only for solar access in winter and shade in summer but also to support species. If it is a low-income neighbourhood, maybe you do need fruit trees to support the human species that maybe do not get enough fresh fruit and vegetables otherwise.

I know if you are really shopping on a budget, they are the first things that get cut from the trolley because a loaf of bread costs about a dollar and fresh fruit and vegetables maybe $6 or $7. There are ways that we can support not just threatened species but also our more vulnerable members of society through how we treat our public open space.

THE CHAIR: In that regard, would you echo the comments that were made by the landscape architects, that thinking about the landscape first definitely has quite significant benefits? Everyone is nodding. For the purposes of Hansard—

Ms McRae: Yes, I think as well that many of us, as young planners, have been students in Canberra or we lived close to the inner city; so maybe our experience is in apartment living and just being around city centres. That interaction with nature is different. In walking around Civic or Belconnen, we can see that there is an opportunity to have nature in those quite dense urban spaces as well.

That is why we really wanted to reiterate the biophilic city principles. Maybe there is an opportunity through this strategy not only to look at leaving space for tree planting but also, in areas where that cannot be achieved, having rain gardens or having planning codes that facilitate, say, pop-ups that really enable people to have an interaction with nature, even in an established urban area.

MR MILLIGAN: You recommend that the government look into its wastewater management. Have you got any ideas or initiatives that you think the government

should look at or that you would like to propose?

Ms Adams: In the driest continent we really need to get with the program and look at what people are doing in terms of water recycling and re-use overseas. I think it goes through five or six people in London and they survive. We have a real cultural issue around that, but it is pretty irresponsible, given where we live and particularly the change in climate. There is a lot we can do in the space of water management.

MR MILLIGAN: And recycling of water, using it for green spaces—

Ms Adams: For potable water.

MR MILLIGAN: for our sports reserves and playgrounds, so greywater, second water. What about bore water? Would you look at using bore water?

Ms Adams: We are not groundwater experts. But, from the limited few papers I did in my geography degree, it is one of the least understood areas and it is very vulnerable to overuse. There are huge salinity issues across Australia. So why not re-use the water that is already in circulation and just leave it alone?

MR MILLIGAN: Fair point. You also mentioned introducing legislation to ensure minimum requirements for greenery in new developments. What sorts of extra requirements would you suggest, other than rooftop and wall greenery? What other requirements would you suggest for new developments that are proposed?

Ms Yong: What we are trying to say is that developers have a responsibility to go above and beyond what is in the planning code. While there are plot ratio requirements and there are opportunities, as mentioned, for rooftop greening and wall greening, maybe there are also opportunities for looking at green infrastructure. How does that work on a site? Is it just about placing areas of green on the site to meet plot ratio requirements, or are there more important social outcomes that can be integrated as well?

MR MILLIGAN: Do you think there is adequate open green space currently now in new development areas?

Ms McRae: Building on Jen's point, looking at the usability of the green space is something that can be considered, particularly as the city becomes denser. Maybe we could be looking at new developments and saying, "What do these buildings give back to the public realm?" There is obviously a responsibility to provide green space or space for planting for residents, but as our city changes are there opportunities to, say, provide a park that all people could use in that space? So maybe that is something that could be considered in new developments as well.

Mr Chan: Also, the need to make sure there is accessibility for those open spaces is important, because it is kind of useless if we have an open space that is not accessible by everyone who lives there. I would love to live in an apartment with a huge or a tiny park—it does not really matter. As long as the quality is good and I can access it every day when I need to, that would be great—just to make sure it is there.

THE CHAIR: Let us go back to biophilic cities. We have heard about those from other presenters as well. Can you run through a bit more about what biophilic cities are and where you see the opportunities in the ACT? You have touched on it—but just a little more detail.

Ms McRae: The biophilic cities network was set up in 2013. The principle is that access to nature promotes health benefits and benefits to our biodiversity and also sustains our economy. This network of cities is about empowering citizens to access nature through an integrated approach to having green in the city.

The process for membership is that the city government needs to adopt a membership and approve it through an instrument. It will be done through, say, a technical document by the government, by the authority. Then there needs to be a mission statement about what the city wants to achieve. Singapore first had a city in a garden. That has evolved, and you can see here what the outcome is. An important part of the biophilic cities network is that they collect data to state how they have achieved those goals. It is about not only collecting information but also sharing that with the network.

THE CHAIR: Apart from Singapore, which other cities are in the network?

Ms McRae: Fremantle in Western Australia, Wellington in New Zealand, Austin in Texas. I think there are around—

THE CHAIR: You do not need to list them all; I am just trying to get a sense.

Ms McRae: There are many. It is a global network of cities. A large focus we saw in our research was empowering citizens and also establishing governance around green infrastructure and blue infrastructure.

THE CHAIR: If the ACT did become a biophilic city, what would you like to see in our statement?

Mr Chan: Good question.

Ms Adams: You can reference the bush capital as well but say that it is a home for all people and all species, that we have the CSIRO and really great research organisations here and that we can provide the example to lead the rest of Australia.

Mr Chan: I would like to mention that we have a beautiful lake. That is something we can be proud of. When we are trying to achieve a biophilic city, we can always connect the green to the blue at the end of the bigger picture. So why not use the lake as a public open space for everyone?

Ms McRae: For me it is really about the daily connection to nature and on a range of scales. It could be the ability to live in an apartment but walk into a reserve, which is unique to Canberra, but also to hop off the light rail and see beautiful vegetation around the city centre. So it is not just about access at one point; it is something that is woven throughout your day, so you get those benefits.

Ms Yong: I am happy with those statements.

THE CHAIR: On behalf of the committee, thank you for appearing today. When available, a proof transcript will be forwarded to you to provide an opportunity to check the transcript and identify any errors in transcription. I do not believe that anyone took any questions on notice. On behalf of the committee, I thank all the witnesses who have appeared today.

The committee adjourned at 4.55 pm.