T R A N S C R I P T

LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE

Inquiry into recycling and waste management

Melbourne—Wednesday, 6 November 2019

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WITNESSES

Dr Gillian Sparkes, Commissioner,

Ms Katherine Li, Business Support Officer,

Mr Michael Reid, Manager, Business and Engagement, and

Mr Andrew Marshall, Science Writer, Office of the Commissioner for Environmental Sustainability.

The CHAIR: I declare open the Environment and Planning Standing Committee public hearing. All mobile phones now need to be turned to silent, and I will ask you to turn your name tags around. I would like to welcome Dr Gillian Sparkes, Commissioner for Environmental Sustainability, and also Ms Katherine Li, Mr Michael Reid and Mr Andrew Marshall. We appreciate you making yourself available today, the day after Melbourne Cup, so we do apologise for you not having the day off today.

All evidence taken at this hearing is protected by parliamentary privilege as provided by the *Constitution Act 1975* and further subject to the provisions of the Legislative Council standing orders. Therefore the information you give today is protected by law; however, any comments repeated outside this hearing may not be protected. Any deliberately false evidence or misleading of the Committee may be considered contempt of Parliament. You will be provided with a proof version of the transcript in the next few days.

Dr Sparkes, I think you are going to give us a presentation, and then after that we will ask a few questions. Again, thank you for giving us your time today.

Visual presentation.

Dr SPARKES: Thank you, Chair, and thank you, Committee members, for inviting me and my team. I do have Andrew Marshall, who is a Science Writer and one of the authors on the *State of the Environment Report*; Michael Reid, who is the Manager in my office and an expert in sustainable development both nationally and internationally and particularly with the sustainable development goals; and Katherine, who is a lawyer in her own right but also a Business Support Officer in my team. We are a small unit of eight people, but we have a very high impact team, so hopefully we can support your Inquiry today.

Can I start by acknowledging the traditional owners and thanking them for the care of country and move on straightaway to a short presentation. Really I am assuming that many of you may not know my role, how it fits in the governance of the environment portfolio and Government in particular. I just wanted to get to that, then to specifically the work we have done in state-of-the-environment reporting—how we develop recommendations that we put in those reports—and then onto the report in regard to the waste recommendations.

My role is formed under its own Act. You may not know this, but there is an Act called the *Commissioner for Environmental Sustainability Act 2003*. That establishes the role of the independent Commissioner. The independence of the Commissioner is seen as one of the key attributes of this role. It is not a regulatory role. It is a role that provides science advice and reports for Government, and obviously as the Commissioner I also am a key adviser to the Minister for environment on all sorts of matters. As Cesar knows, my background is broader than science and bureaucracy. I do have a chemistry background, and I have worked in the industry. So I come at this with my own advice from my life, if you like, as well as the specific advice as the Commissioner, and I will try and differentiate, as you ask questions, between those.

Could I also just note, just for matters of conflict, that I am a board member of the Industry Capability Network. I have been for about six years. That implements the Local Jobs First policy. I want to acknowledge that through the secretariat. Also I am a board member of the CFA, and I know that the emergency management sector has been a focus, so I just park that as well.

I have been the Commissioner in Victoria since 2014 and was appointed by the then coalition Government to look at the role through both the functions and objectives of the Act and determine how we could improve the

impact and public value of the role. I have since been reappointed and have led a process of reform to bring about a stronger acuity around our science reporting, how we work across the portfolio and the bureaucracy and with community to create high-impact, very targeted reports for Government. That work has resulted in, since 2015, the Commissioner being tasked with I think it is around seven new roles in legislation now—independent science reports as part of policy reforms. That is the first time the Commissioner has been given new roles since the Act was established in 2003. We now have been cross-referenced in many Acts, and we also have had the Yarra Protection Act—we cross-reference with that Act and do the *State of the Yarra and its Parklands* report.

In 2019 to complete that cycle of reform through the secretary of the department I requested a review of the Act to make sure the Act was contemporary—if Acts are still cross-referencing this Act, are we happy with it? The VPSC did a review of the Act and found that the legislation is contemporary. There are some administrative matters that can be dealt with in that regard, but the Act is contemporary and the objectives of the Commissioner, as you can see, are around encouraging decision-making that facilitates ecologically sustainable development—particularly, I must say, in regard to our natural environment. So in summary, we report on the state of Victoria's environment to help Government, business and community take practical action. We have a pragmatic view of our work and its role.

With that in mind, one of the key roles that the Commissioner has is to produce the five-yearly state of the environment report. That report was tabled in the Victorian Parliament in March this year. It comes in two parts. I brought it just to show you. You probably would have all got one. We do have it online, and we do have an interpretive website, but due to the parliamentary requirement to table we had to do a print run, so we gave all the MPs a copy. The science synthesis—this is purely the science report that sits behind the answers that are in here, if you like, the recommendations et cetera. There are 13 themes, 170 indicators and 20 recommendations—so trying to really bring this down to: if we are doing this every five years, what are the critical things we should focus on now that perhaps have not already been dealt with?

The report tells three stories: one, on the current health of our natural environment; two, on the adequacy of our science; and, particularly, three, 'Future focus'—what do we need to do? And that is where the recommendations come in. It is the first ever baseline science report, state of the environment report, for Victoria. We have not had a baseline science, but we actually have it now. So this baseline science says in 2018 this was the baseline science and we will have much better access to monitoring trend going forward.

This was submitted to the minister for environment in December. As I said, it is the first Victorian SoE developed as a scientific baseline. It was tabled in March. You can jump online to get it in multiple formats, cut down to report cards et cetera, but it is also for children, particularly targeted at the persona of 11 to 14—interpretive websites, storytelling, lots of visuals from museums, these sorts of things. So it is an educational tool as well. It includes recommendations that are based on the science. Our team are scientists—that write this. I am a PhD scientist myself. Our lead head of science and research, who is in Canberra for a conference, could not be here, but he is a PhD. We have got a couple of others—and you are a very experienced scientist who had 10 years in the analytics and air and data monitoring branch of EPA. So the Government have 12 months to respond.

Each scientific chapter is written in a way that is useful. It is written as a text that people who work in this portfolio will be able to pick up and make use of, as well as the community making use of the overarching findings. We look at the background and challenges in the current policy and management responses—so at the time of writing, what was going on with policy, so it is a good inventory, if you like; assessment and findings for each indicator—each of the 170; a future-focused chapter which leads to the recommendations; and one of the core recommendations, recommendation 19, is that the Government invest in developing our skill in environmental economic accounting to tell a different story about the health of our environment through that GDP economic lens, if you like. That is in all of the chapters. It tells us what we would need to do to do that.

I can actually give you a copy of this, and at the back there is an appendix that goes into a bit more detail about the report, but I just wanted to be clear for Committee members about how we develop recommendations. This is very first-principle science work, and we are taking data, we are synthesising data, we are doing peer review and then we are developing recommendations. In the case of all of our work we look at the principles for the recommendations on where we are supportive of the policies and what do we need to do to deliver on those key policies and actions. So there was quite a lot of work done in between when I was appointed in 2014 and when

we wrote the report. There was a huge amount of work done with the department on developing policies—Government-led the bio plan, a huge 20-year plan; the water plan, the *Climate Change Act*. So we had plenty of policy work done. What do we need to do to deliver that?

We also took into account all other respected reports through authorised agencies, such as VAGO, the Victorian Catchment Management Council and the independent panel on climate change. So we do not just sit and take our own work in isolation of what other respected reporters are doing, including, I should say, federal, and that would include the Finkel review. The EPA inquiry, which obviously has come through your work, was a key informer, particularly around some of our air recommendations. We also prioritise recommendations where we would improve multiple environmental outcomes. We are looking for systemic change. So if I have realised we have the scarce resources of Government, how do I want the money spent—not me personally, but what is in the best interests of the community—to drive impact and get better outcomes? We are designed to enhance our environmental knowledge and policy, so it is about taking us forward, not maintaining a status quo.

One of the key things is to align recommendations with achieving the Sustainable Development Goal agenda, 2030 Agenda, and developing a system of environmental accounts. I am currently writing with my team the next framework for the next report, which will be tabled in the Victorian Parliament next year. It will be based on the Sustainable Development Goals. So we are shifting Victoria to reporting and monitoring on the Sustainable Development Goals. That is in a statement of expectations from the minister to me as well as a recommendation in the report. The Government have not responded to the report, but my statement of expectation asked me to use the SDGs. That is important for the Inquiry, because the circular economy will need to take that into account, and it fits beautifully with that. So it is all fitting with the policies.

In the recommendations there were five types of themes emerging that we need to deliver. People want things to keep moving, not just policy work. We need science impacts. So knowing what we need to know when we need to know it was a key thing. As Commissioner I request information. I can report on what I can get. It is not operational, it is at a point in time and it is static, but if the data is not being created, if the measurement is not happening, we cannot get it. So there is also a bigger appetite, as you know, for wanting to get more real-time work.

Coordination and governance is a big issue: improving role clarity and responsibilities and funding models. So my personal view, and coming from my life, is that it is not always about new money. It is sometimes just about tidying up where we are spending the money. Our research investment strategy could be in that case for things like biodiversity and these types of things. Data monitoring, spatial information and analytics—you would have heard a lot about that, and there is definitely a lot of work going on in the department in that area. I am really energised by the work they are doing. My head of science is up at the GEO Week in Canberra talking about this. It all links to the SDGs as well.

Citizen science and education—that idea that the citizen science cohort cannot contribute is not right. We can actually start taking in citizen science and using it in a really structured way. It is not just about government investing; it is about how we develop the systems so we can talk to the whole community and people can participate in the science endeavour. Participation is really important for ownership of outcomes.

So on waste and resource recovery—and I have got a copy of the waste chapter which I can leave with the Chair and the Deputy Chair just so you have got it—I did want to just give a shout-out to the Statewide Waste and Resource Recovery Infrastructure Plan. It is something I led the development of between 2011 and 2014. I was the chair of Sustainability Victoria, and when I was the chair at that time there was a lot of work going on in waste. One of the things I particularly wanted to do was get a plan: what does all the waste infrastructure look like and where is waste moving? This is a precursor to a circular economy outcome. It is a tool that we need to plan our infrastructure. It was developed on the circular economy principles. It is legislated in the SV Act, and it is an important part. It is not the solution, but it is an important component of the next wave. I just want to commend the Minister and Sustainability Victoria for the work they did continuing to lead that through to legislation. I was long gone by then.

In Victoria we are the fastest growing state, so it is no surprise that we need to act on these things quickly to transform our economy and our circular economy model. The 2018 report supports and builds on the Victorian Government's commitment to transition to that model and on the investment made to date in both the SWRRIP

and the Regional Waste and Resource Recovery Implementation Plans. Having seen firsthand from the start the idea to when that was legislated, there is an awful lot of really great work that has gone into that, and we want to build on that. That would be one of the things I would say. But we need to focus on addressing knowledge gaps, better monitoring and reporting, and the system monitoring rather than just the outputs of the system. There is no system monitoring. We are not monitoring systemic health; we are monitoring outputs: waste to landfill, food waste, recycling. But how does that tell us about how the whole chain of custody is working?

The critical role of Government in this area, besides policy setting and regulation, obviously, and good governance, is procurement and education. There is a big push for education in this. So there are two recommendations in the state of the environment report around waste and resource recovery. Out of the 170 indicators for the SoE, six are waste, out of the 22 recommendations. For the size of the list of recommendations, we have put a significant effort in to say this is really, really critical.

The first recommendation takes what I have just said about building on the SWRRIP and the work that has gone on there in developing indicators and implementing a comprehensive monitoring reporting framework to measure our progress against delivering those plans, a systems process. Because those plans were designed on circular economy-type principles, that can help us start getting our circular economy indicators and get the right monitoring framework and reporting framework in place.

Then there is public reporting on our transitions. So once we start to transition, what we monitor and how we report: these things matter, and one of the big things that we learned through the reforms that I have just led is that once the role of the Commissioner was much better understood, the important role for trust and confidence of the community in independent reporting really started to come through. There was a lot of cross-referencing us for reporting on progress against biodiversity plan targets, environmental watering benefit, the state of the Yarra; we are doing the state of the forests. So there is a real need for community, I think, to have some independent reporting.

We also aligned with the SDG targets, so circular economy fits really well with the Sustainable Development Goals. So we are all leaning in to the same theories that are all giving us a much better understanding of the system and the complex multiple outcomes.

This one is really quite long. This comes from someone who has worked in the sector, and I might read it verbatim because it is so long, but what I am saying is that we need to start implementing circular economy policy and even just starting to get an idea of how, once we go past the idea we have a policy, we have a plan and we are going to develop indicators, we actually have to have a plan to implement. It is not just going to happen.

What we know is that over 75 per cent of the community live within a metropolitan region, and that, for waste scale and access to base load et cetera, is really important. So at the very minimum what we are saying is: start with the metropolitan region to get the policy going, including leveraging Victorian Government procurement policies to activate. In developing the action plan to deliver the strategy, the roles and responsibilities of all agencies should be clarified. Who is doing the policy, the procurement, the program, the reporting and the regulatory roles?

One of the things that you would have heard from industry is they do not know where to go. That goes to, I guess, the community outcomes then are not optimised. I believe that we should be committing to long-term systemic statewide community education for kerbside around better separation in the same way we do TAC and WorkCover ongoing, to drive the behaviours we need. We have ongoing campaigns, so not stop-start and programmatic. Personal view: once you do programmatic it is almost like, 'Well, we've fixed that problem now'. But what we know is this is an ongoing issue for the smooth operation of the system. If you look at some of the big players in MRFs they will say that 50 per cent of their kerbside is fibre, so cardboard and paper, 30 per cent is glass and then only about 5 per cent is plastics—maybe 5 to 10. It is the glass getting in with the paper that is one of the big impediments to the recycling. So there are some simple things that we can chunk down to fix.

That has not come out very well on the screen, but this is my last slide. This is my summary, if you like, around ideas from me to the Committee. I think there are three areas to think about in the report. One is governance and leadership, so I think we know that the governance has not—you know, we are in a tricky spot.

Policy and planning we have talked quite a bit about. We have the circular economy policy underway. We have got SWRRIPs and we have got quite a bit of good skill in planning, and then of course it is around the execution.

Role clarity across the three tiers of government: I think that needs to be really clear.

Evaluation, monitoring and public reporting, and then the old—we need in the execution some way to make sure we are continuing to adaptively manage, so we need to manage a system now, not just an outcome, like how much is going to landfill? Not just targets, but we have got to have some hands on the tiller, I think, for systems management.

The CHAIR: Thank you very much. On the last thing, and on that slide, what would be the best way to actually implement a system like this? That is something that has crossed my mind a number of times: do we seriously need to think about a single authority for example, like the rail crossing authority, which has been charged to deliver these big construction jobs? Is that something we should consider looking at to address these issues, because we have the three tiers of government, and we are talking about the governance issue, the monitoring, the coordination? And you can put whatever hat you have got on—because you did indicate you have got a number of hats. So from your experience—and that is something that I have studied carefully in your report because you make mention of the coordination—what would be the best way of going forward? Is it to actually bite the bullet and look at an authority? I know the Essential Services Commission are looking at declaring the industry as an essential service, which I think it should be. I am interested in your sort of view on these matters because of the three different hats you have got on, plus your history and industry experience.

Dr SPARKES: Yes. Well, I might actually, if I may, take the Commissioner hat off and just speak as someone who has worked in this space, both as chair of SV and in the department as well as in industry running a Cleanaway branch.

I think structure follows strategy, but anyone with an industrial background, and my background is operational-industrial—I have worked shop floor: trucks, people, hard hats, steel-capped boots. So when we talk about the circular economy, and we support the circular economy policy—we support that strategy and we have done that in our recommendations—what I would say is that is a system. We need to then operate a system. And if you are going to operate a system, how would you structure best to run a system? If we think of it like energy or transport, or now we are talking waste, the players who are delivering the system are another matter. That is the treaters or the manufacturers who are taking it, like Australian Paper et cetera; they are all helping to deliver the system. But how are we governing and leading the system to make sure we know what is going on? That would be my first thing: how will we know what is going on? How will we know, and whose job is it going to be to make sure we know early warnings on things?

One thing I think is it needs to be somebody's job to make sure people are kept abreast. By 'somebody's job' I mean we need to create a leadership role about whose job it is to pre-warn. For example, remember when we used to use cement kilns for tyres? And they were a key outlet, also, for sludges and all sorts of things. So if they are going to go offline, who is thinking about that?

Or if we are going to do waste to energy, who is thinking about changes that might be happening? Where do the industry go when they have got great ideas and want to know that they can work with the right people? For waste you need good constant base load; the kerbsides are really important and green waste coming from households is a really important base load source. At the moment we have base load being procured through collective procurement for, say, the metro group and the regional groups, but base load is one of the key things. Are the people who are looking at the base load also looking at who is coming offline? How is it all put together?

Once you understand what you want to achieve in a system then you need to structure for, I guess, how we would best deliver that system and have the checks and balances in place—because we are now

operationalising the strategy and we are effectively an operation. We need to think operationally. We are running an operational business that is servicing the community daily. I think there is merit in looking at the governance and the architecture that we have.

I do not know if you have looked at the 2012 ministerial advisory committee's inquiry into the governance of the waste groups. There was some work done. Lydia Wilson was the chair. Minister Ryan Smith was the minister. There was governance work done then which got us to the metro six regional groups, and this discussion was had then. You might want to go back over that report and work out what the reasoning was there. But for the waste industry, the scale and access, most of the stuff in terms of base load is in the metropolitan region. That is not to say we do not want to service everyone.

The CHAIR: So, basically, looking at—let us call it an agency to cut the demarcation argument—passing-the-buck responsibility or who is responsible for what, the EPA might be responsible for the administration of the Act and the prosecutions, education and WorkSafe might be responsible currently for dangerous goods, DELWP has got this overarching responsibility and then you have got Sustainability Victoria. It is trying to bring all that together and have that clear direction. That could assist because, as you said, it is not just the money. We heard earlier this morning that the $406 million in the Sustainability Fund is pretty much committed long term. But the community expectation and understanding is that the money is just sitting there.

Dr SPARKES: I was at a national workshop recently with packaging industry investors and treaters and the investments—it is like any part of the economy. If there is policy certainty and there is good governance and leadership and some certainty, the investment community will invest. At that time I was listening to someone talking about an investment that Macquarie have made into Perth or Kwinana—I think it was Kwinana. But just in general I do not think investment principles are any different in the waste industry than they are in any other industry, but you need that policy certainty.

Mr HAYES: That is interesting. The governance and leadership thing is very important. I liked your comments on communication—that you need a long-term education program really in regard to waste and recycling. That is something that is coming to the fore in our investigations. Just reading what has been noted in here: the Commissioner noted Victoria's unprecedented population growth as an important consideration when assessing the health of the state's environment. When assessing the health of the environment, particularly in regard to waste and resource recovery, what sorts of problems does the continuing unprecedented population growth present in your opinion?

Dr SPARKES: When it comes to waste the more base load the better for the commercial models. So I think as long as we have got a really good system that understands how it operates, the more you can put tonnage through a system. Scale is good for commercial models generally if they are going into recycling and re-use. So in that regard I think with this opportunity that we have now with the circular economy policy—for example, the municipal association; I read Kerry Thompson's transcript—we have got a real appetite for transformational change. So I think there is a real opportunity to service that economy, and I think actually scale is not an issue in this regard as long as we have got the infrastructure that we need and we have planned for it.

Mr HAYES: You are talking about the circular economy versus a linear economy. I sort of see it as with a circular economy we are trying to replace the consume-and-dispose economy, I suppose, with a sustainable set-up for the future or a circular economy. I feel as if a lot of the encouragement towards growing the population is to increase consumption, looking at it from a commercial side of things, but we want to really try and grow that circular economy, if anything.

Dr SPARKES: We do. But your—

Mr HAYES: It is a huge change in focus for most of our manufacturing industry, really.

Dr SPARKES: I am just looking at the numbers. Forty-nine per cent of our waste streams come from construction and demolition and 36 per cent from C and I, commercial and industry. There are a lot of ideas in what you said, but there is consumption at the household level, and that is packaging. I have got some views around the role of the national Government in packaging. But over 80 per cent—85 per cent—of our waste is coming through construction and commercial industrial. For example, if you take the Green Roads plant that

Alex Fraser have built, they have designed that plant on recycled glass as the primary input. So virgin material is not the primary input. They would say as long as they know what specification they need to deliver to whoever the customer is and they have got good specifications and good access to those markets, they can do that. The reality is we are going to keep building and we are going to keep doing construction, housing and commercial, so having investment such as that type of plant that takes recycled as its primary input is really important, I think. There is a huge opportunity in that area with those sorts of opportunities for investment. Kerbside will benefit from that because part of the glass is coming from the kerbside.

Mr HAYES: A lot of construction waste is going into landfill currently, and we could be re-using concrete and timber and things like that. It is currently going to landfill. But also in construction there is a lot of energy consumed and a lot of greenhouse gas production. On the other hand many people say the most energy-efficient building is an old building, really, that you should not be pulling down and re-creating all the time. Even though it is good for industry, turnover and GDP and things like that, it is adding to the whole pollution effect in the long run. Do you have any comments on that?

Dr SPARKES: That is more of a comment, I think, that you are giving me than a question.

The CHAIR: Maybe we will come back to that.

Mr HAYES: Once again, for me it is sort of a challenge as to what is circular and what is consumption and how it can be more productive and more sustainable.

Dr SPARKES: What I would sort of say looking at this from a pragmatic viewpoint is that we have a waste system that has hit a turning point and that is in crisis. The community would expect us to respond to that, and responding to that in the best possible way with the most sustainable outcome is really what we focus on. We think that the circular economy model and using the activation of Government through procurement and these types of things with good governance and leadership would deliver for the community what they would rightly expect.

Mr HAYES: And it has got a future. You can maintain that in a sustainable way.

Ms BATH: Looks like it is my turn. Thank you very much. I feel like we are in very good hands, Dr Sparkes, and with all of your team. Thank you very much for the work that you are doing. I have got one little quick housekeeping question. The 2012 waste groups report, can you just tell me the name of that one again?

Dr SPARKES: The chair was Lydia Wilson. It was a ministerial advisory committee review into the governance of waste groups, or something. It had governance in the title.

Ms BATH: That will be enough to track, thank you. I have got two questions. One of the questions I am not even sure how to ask other than you mentioned economic accountability as part of your recommendations. I would just like you to tease that out a little bit. I think you talked about different systems having an economic value and sort of exploring what that looks like. I have talked to foresters, for example, who want to talk about—and this is not specifically to our Committee—unpacking the various components of what a forest is in terms of its economic value and diversity value. You do not have to do forestry, you can come back to waste, but it is that type of thing. Could you explore that?

Dr SPARKES: Yes, absolutely. I think for the foreseeable future two of the key tools for Government to respond to climate impact, the impact on the environment et cetera and to know what is going on are our access to the internet of things and digital spatial earth observation, so the work that will be done through things like the SmartSat CRC so we know what is going on and we can see stuff both through positioning and also in real time. It is really important data, and the Sustainable Development Goals will be an important framework to make sense of that data.

In addition to that—that is a science conversation—we also need to have an economic conversation on the environment. The tool that helps us have that conversation is called environmental economic accounting. It is based on the system of accounting, and it was developed by the United Nations to put an economic value onto systems so that we could explain in simple terms why we do not need lots of water treatment plants on Port

Phillip Bay treating the water for that marine environment, even though it is a very busy bay, because the ecosystems—the seagrasses and other things—are doing their work. What is the GDP value of the work those systems are doing, and therefore, how do we bring them to account and say, 'Look, actually we're not asking for too much because these things are doing a really great job'? Starting to understand the GDP value of our ecosystem services is really important. But for people who are working in managing things, they manage information—you know that old adage 'What you don't measure, you can't manage'. So you do need a framework that explains to people who want to see those measurements in economic-type terms explained in that way, so we need that economic accounting.

The department of environment—this is completely consistent with my peers and others, this view—have a strategy to continue to develop and they actually endorsed a strategy around 2016–17 for developing environmental economic accounts. We totally support that—in fact more strength to their arm—and I think that is really important. It will be important when we go to report on the benefits of the circular economy. So we take these things away from concepts, ideas or just perceived values to actually account value.

Ms BATH: It is a holistic view then, isn't it, in that respect?

Dr SPARKES: Yes. It is particularly important in waste because waste is such an economic issue.

Ms BATH: You talked about adaptive management, and I think it is a really important point. I am not picking on councils per se, but maybe looking at our municipal councils, to my mind, some of it needs to—sorry, that is comment but also a question. There is the carrot and the stick. So for those councils that are implementing—and if we are measuring and checking what they are doing, and they are acting in a good capacity—I am interested in your discussion around a carrot or a stick, so that if there are underperforming councils or underperforming sectors, how do we deal with those that are doing really well? So that would be part of the checking, and then the reaction to their outcomes.

Dr SPARKES: I would not get into that level of granularity. Our view is that we need to shift to the circular economy policy, and we need the right frameworks for delivering it but also for regulating it. So the regulators have a role in any system, and the role of the regulators needs to be really clear in this system. It is no different to any industry that gets regulated. The conflation of the EPA's role, because of the need to respond et cetera, seems to an observer to be more than it is; it is a regulator and it is there to do its job really well. At the moment we need to focus on getting the policies in place and then the regulatory frameworks to support them. But the regulatory framework that will come in, or the legislation that will come in, next year will have the preventive duty. So we will be shifting—and you would have heard this—to a different style of regulation which will be, I think, quite powerful and aligned with how we regulate through WorkSafe with OHS. So you need to manage risk. Any operator, government or non-government, needs to manage risk and then show that they have done everything they can to manage risk. So it is just a regulatory role in my view. I have to say the reforms to the EPA and the new legislation are going to be incredibly enabling I think—really, really important and a good outcome from the inquiry.

Dr RATNAM: Thank you very much for your evidence today and all the work you have done to date. The state of the environment report, I am not sure whether you know, was mentioned quite a few times in Parliament last week when we were debating a motion to set up an inquiry into extinction, so thank you for the work you did. You laid the foundation for us making the case based on evidence that we need to look at problems that have arisen that you have identified through your work that Victoria needed to tackle. So thank you very much for that.

I am familiar with the report. I was interested in one particular area—you might have heard in the previous lot of witnesses that appeared before us—in terms of waste to energy, waste incineration. Some of the concerns that we have heard through evidence provided to the Committee over the last few months is that we have not properly anticipated the environmental impacts of incineration. So one of the biggest issues potentially in terms of environmental impact is hundreds of thousands of tonnes of ash a year that something has to be done with, either storing, re-use—whatever. Just in terms of the impact it will have on our environment, we are not quite sure what kind of impact it will have. We have had an interesting submission from Environmental Justice Australia talking about coal ash, and that system of regulation and governance around coal ash actually has not been managed that well, so that does not bode well for us now managing a new stream of waste ash—and

potentially toxic waste ash. I was interested to know whether you are doing any work in this area and if there is any advice you could provide to us in terms of what work is underway to anticipate and mitigate the impact given that there are so many plants now that look set to be approved.

Dr SPARKES: Thanks for your question. There are regulatory regimes in place now through the works approval system, so if you want to put in a new plant—it might be a waste-to-energy plant—you go through works approval, EPA assess that and make recommendations on that. There is no reason whatsoever why that system would not hold up however many plants come online. It is a works approval system. It has been in place for a very, very long time—all of my career. So there is an approvals mechanism for what needs to happen with the ash if there is an ash issue.

Dr RATNAM: And I hear that. One of the issues that we are seeing—and I am happy for you to take that on notice; you might not be able to respond to it today—is that the regulatory system is still resulting in problems with the management of the product. So the regulation system might look good on paper, but you have got the big coal power stations, for example. There is lots of ash that is being produced, some in unlined landfills, which has the potential to leak and contaminate groundwater. Mines do not have to be rehabilitated or remediated before they are recommissioned so some issues are arising, and despite the best intention of the regulation it has not quite resulted in the best environmental protection. So it is something I just thought I wanted to know if you are doing some work on given that I think there is a waste-to-energy policy being developed along with the circular economy policy, and I wanted to know what the interaction was between the different Government agencies providing advice to the Government.

Dr SPARKES: Yes, so there are very formal interactions. With the circular economy policy I have had personal meetings and briefings with the department as they have developed that and they have had question times like this and we have had a chat—not in public of course but just a chat—so plenty of consultation, and also with the EPA. So the environment portfolio works very well that way. There are a lot of forums where we actually get together. The secretary of the department convenes heads of agencies three or four times a year, actually, so there is plenty of opportunity for that. We do work together. In terms of the waste-to-energy policy, we would get to look at it and we would get to consult and review and discuss, and the department would come to see us. So in terms of my role, although I am an independent appointed through the Governor in Council process, administratively, because I advise the Minister for environment, I report to the secretary and the deputy secretary for environment in the department of environment, and we have a very good collaborative relationship in that regard. So we get to have input into all of this—and through the minister directly, I must say.

Dr RATNAM: Great. And thanks again for the state of the environment report.

Mr HAYES: Am I right in saying that probably one of the mantras you hear in dealing with waste and recycling is reduce, re-use and recycle, in that order. Do you think that getting the re-use and recycling part of it correct is more important than the reduction side of it? Like, the more waste that we generate, in a way, is better for the industry, or should we also be looking at the reduction—really cutting back on consuming in the first place?

Dr SPARKES: I do think consumption is a big issue; I think most people would think consumption is a big issue. This is where I also think it is really important for us to understand the role of government. What is the role of the three tiers of government? When it comes to packaging and product stewardship, there is a key role for the Federal Government. The national packaging covenant was put in place in 1999. It has never really had a lot of overarching impact on product stewardship and packaging. I think the really great thing about this moment in time, particularly with a lot of bipartisanship on waste and wanting to move to a circular economy and also deal with some of these issues, is that people are all having the same conversation about this. But I do think that there is a role at the federal level on consumption and packaging. It really is important that, in any industry, harmonisation as much as possible is your friend if you are operating. If the laws change across borders, it gets really tricky when you are trying to do packaging and things like that. That is something I am very strong on: that the Federal Government have a role in packaging.

The CHAIR: Dr Sparkes, thank you to you and your team, and we appreciate your time and valuable information today.

Witnesses withdrew.