REPORT ON PROCEEDINGS BEFORE

PORTFOLIO COMMITTEE NO. 7 - PLANNING AND ENVIRONMENT

WASTE AVOIDANCE AND RESOURCE RECOVERY AMENDMENT (PLASTICS REDUCTION) BILL 2021

UNCORRECTED

At Macquarie Room, Parliament House, Sydney, on Monday 31 May 2021

The Committee met at 9:15.

PRESENT

Ms Cate Faehrmann (Chair)

The Hon. Mark Buttigieg

The Hon. Catherine Cusack

The Hon. Ben Franklin

The Hon. Shayne Mallard

The Hon. Mark Pearson (Deputy Chair)

The Hon. Penny Sharpe

The CHAIR: Welcome to the first hearing of the Portfolio Committee No. 7 – Planning and Environment inquiry into the Waste Avoidance and Resource Recovery Amendment (Plastics Reduction) Bill 2021. This inquiry will hear stakeholder views on this bill, which aims to phase out single-use plastics and other plastic products that are harmful to the environment and proposes to set targets for plastic reduction with a view to eliminating plastic pollution. Before I commence, I acknowledge the Gadigal people, who are the traditional custodians of this land. I also pay respect to the Elders past, present and emerging of the Eora nation and extend that respect to other First Nations people present. Today we will be hearing from a number of stakeholders, including environment and community groups, local government, disability advocates, bioplastic manufacturers and the Australian Packaging Covenant Organisation. Though we will have many witnesses with us in person, some will be appearing via videoconference. I thank everyone for making the time to give evidence to this important inquiry.

Before we commence I will make some brief comments about the procedures for today's hearing. Today's hearing is being broadcast live via the Parliament's website. A transcript of today's hearing will be placed on the Committee's website when it becomes available. In accordance with the broadcast guidelines, I remind media representatives that they must take responsibility for what they publish about the Committee's proceedings. While parliamentary privilege applies to witnesses giving evidence throughout this inquiry, it does not apply to what witnesses may say outside of their evidence at this hearing. I therefore urge witnesses to be careful about comments they may make to the media or to others after they complete their evidence. Committee hearings are not intended to provide a forum for people to make adverse reflections about others under the protection of parliamentary privilege. In that regard it is important that witnesses focus on the issues raised by the inquiry's terms of reference and avoid naming individuals unnecessarily.

All witnesses have a right to procedural fairness according to the procedural fairness resolution adopted by the House in 2018. If witnesses are unable to answer a question today and want more time to respond, they can take a question on notice. Written answers to questions on notice are to be provided within 21 days. If witnesses wish to hand up documents, they should do so through the Committee's staff. In regard to the audibility for today's hearing I remind both Committee members and witnesses to speak into the microphones. As we have a number of witnesses in person and via videoconference, it will be helpful to identify who questions are directed to and who is speaking. Those with hearing difficulties who are present in the room today, please note that the room is fitted with induction loops compatible with hearing aid systems that have telecoil receivers. Finally I ask that everyone turn mobile phones to silent for the duration of the hearing.

JEFF ANGEL, Director, Boomerang Alliance, affirmed and examined

TOBY HUTCHEON, Campaign Manager, Boomerang Alliance, before the Committee via videoconference, affirmed and examined

The CHAIR: Thank you very much. Would either or both of you like to start by making a short statement? Mr Angel?

Mr ANGEL: Yes, I would like to make a few brief comments. This inquiry is particularly important, firstly because of the subject matter, the unrelenting accumulation of plastic in the environment, oceans, land, air, terrestrial waterways, which is causing severe damage to marine life and other food chains connected to that life and, potentially, serious implications for human health. The second reason this inquiry is important is that New South Wales has failed to act on this problem in any semblance of a comprehensive manner. In fact, only the Northern Territory and Tasmania, along with New South Wales, have an absence of plastic pollution policies. That is quite embarrassing for this State, which has had a previous good record on environmental protection and needs to move swiftly on this very important problem.

Our submission has two key themes. The first is that we need to take action on single-use plastics now. I will explain which ones, as are in our submission. Secondly, we need to address other major sources of plastic pollution and wastage to get cracking on. Certainly, the proposed commission could work on that. You might ask, "Why should the State act?" The first answer is that national harmonisation has not occurred and the horse has bolted. A number of States—South Australia, the ACT and Queensland in particular—have already passed legislation, and Western Australia and Victoria have announced concrete policies to act. In fact, even the National Plastics Plan, released by the Federal Government a little while ago, acknowledged that different States have taken action and that national plan simply adds additional items to the proposed ban list.

We certainly encourage New South Wales to be ambitious beyond the recent meeting of environment Ministers' list—quite a short list—when in fact other States have included other sources of single-uses that are causing serious litter and pollution. We reject the option of voluntary arrangements. In fact, they have been a failure over many decades, particularly through the Australian Packaging Covenant. We do have national waste and national plastic goals. We certainly believe that, given the short time frame—that is 2025—in order to meet those goals, nothing but mandatory arrangements will work. Finally, just as a point of what we regard as recycling, we do not regard waste to energy as an acceptable form of recycling. In fact, it is simply just one other way of disposing of the plastic, and it never gets recycled again in the circular economy. I do not know whether Mr Hutcheon may have a few things to say.

Mr HUTCHEON: It is okay, Mr Angel. No, I think that is pretty much a round-up of what we have to say.

The CHAIR: Thank you. This is an inquiry focused on a particular bill—the bill for phasing out single-use plastics. I think your submission suggests that you support the bill but there could be, potentially, a few improvements made. Could you speak to those first, please?

Mr ANGEL: The first major improvement is in regard to the list of single-use plastic items that the bill seeks to progressively remove from the marketplace. When you go through the list, you find that the other States have already banned some of those items. We have marked those with an asterisk in our submission. We do not really see much purpose, given that the other States have already done their investigations and regulatory impact statements, for New South Wales or the plastic commission to repeat that process. The legislation should be amended to simply say that those items we have marked with an asterisk should be banned from six months of the Act going through Parliament. The other items, there may be more to discuss, and the plastic commission can investigate those. But we do not see why the plastic commission or, in fact, other government processes should use their resources and time in order to look at things that have already been fully investigated and banned in other States.

The CHAIR: Mr Hutcheon, do you have anything to add? No. I think you will indicate if you do. I just wanted to get your view so we can explore the Australian Packaging Covenant a little further. We will have some industry reps and, indeed, the Australian Packaging Covenant people later today or tomorrow, who will talk about the progress made with this covenant. But it is voluntary. I understand that all of the companies that sign on to this do so voluntarily. Do you think that there has been a barrier here? Some companies obviously will not sign it. Is that correct? Do you think it is strong enough? What are the problems with the voluntary system?

Mr ANGEL: The Australian Packaging Covenant is a bit of a hybrid. Certainly, the packaging covenant is essentially a voluntary instrument. It is underlain by the National Environment Protection Measures [NEPMs] for used packaging materials, which, in theory, has some enforceability. But, as the recent Federal investigation into the covenant and the NEPM found, there has never been any compliance action by the States. Arguably, it is probably very complicated to take compliance action because the NEPM is expressed in really broad terms and it is really difficult to delve down into a single company's behaviour. The packaging covenant itself has resisted enforceability and they have a very clear ideological position against being regulated. When you look at the range of goals that they have, particularly for packaging, one is that 100 per cent by 2025 needs to be recyclable or compostable. That really does not mean anything. That is just an indication of potentiality. There is nothing either in the covenant or behind the covenant that forces that material to be recycled or composted.

Then there is another target that says 70 per cent of plastic packaging will be recycled or composted. In fact, only 13 per cent of plastic packaging is currently being recycled and, thus, there is an enormous gap to be crossed in order to achieve the 70 per cent by 2025, which is, frankly, utterly impossible under a voluntary arrangement. There is also a target for 20 per cent of plastic packaging to include recycled content. Currently, it is 4 per cent. The industry itself admits they have got quite a major challenge ahead. So we do not believe that within the short time to 2025, unless there is something that is forcing business to put their foot on the accelerator, that we are going to get anywhere near the 2025 targets. Last week, we were at least—what we call a plan B to the packaging covenant. We set a certain number of benchmarks basically saying that by mid-2022, if those benchmarks are not met, all governments should work together to mandate those targets, giving industry three years to get their act together.

Mr HUTCHEON: Might I add something to that, Chair?

The CHAIR: Yes, please.

Mr HUTCHEON: Sorry, I am obviously operating remotely so I do not get your visual cues as much. The way I look at it is there are two issues here. One is what can the State directly do and what should the State support the national agenda to do. So on the first part, which is what should the State do, I am not aware of any industry or other stakeholder who is opposed to States actually bringing in laws to phase out some of these single-use plastics. Boomerang Alliance is currently involved in a whole range of different negotiations and stakeholder advisory groups around the country on these issues, with retailers, with providers of packaging et cetera, and no-one is saying they are opposed to States actually imposing phase-out bans on these products, first of all. I believe even the Australian Packaging Covenant Organisation [APCO] supports the idea of Queensland or South Australia or the ACT or whoever bringing in these bans. So I do not see that you would get any opposition from those organisations for New South Wales to do something similar.

The second thing, more on the comments that Mr Angel has made around voluntary schemes at a national level, we have had the Australian Packaging Covenant in place since 1999. This is a whole regulatory, voluntary approach to packaging that was supposed to be another way of doing it rather than the European way of doing it, which was to impose product stewardship. In 1999, according to the packaging covenant, the plastic recycling rate in this country was 20 per cent. As Mr Angel has just outlined, more recently, it is now 13 per cent. I think that is a testament to how well voluntary action can work and why we actually need to have more mandated action. No-one is arguing about the targets that are set by others. Simply, mandatory action is simply confirming and ensuring that those targets will be met.

The Hon. MARK PEARSON: I am just wanting a bit of clarification. You said product stewardship in Europe. Can you just elucidate on that a little bit and explain what it is?

Mr HUTCHEON: It is, effectively, a requirement that the manufacturer takes responsibility for their product once the consumer has discarded it. So it is either called "extended producer responsibility" or "product stewardship", more usually in this country. It is taking responsibility for your product after it has been discarded by the consumer. Obviously, in this context, it is more of a reference to what responsibility should a manufacturer of packaging have beyond selling that packaging to a consumer.

The Hon. MARK PEARSON: Does that stewardship include sourcing?

Mr HUTCHEON: It does. It includes sourcing and manufacturing, but it also says that the manufacturer bears responsibility for how that product—particularly a single-use product—is going to be collected, transported and processed so it can be recycled or re-used in some manner.

The Hon. PENNY SHARPE: I just have a couple of questions. I want to understand—Mr Angel, I think you will be able to provide information on this—voluntary codes and where Australia is up to with microbeads. There has been talk about this for a very long time. Could you give us an update on where that is up to?

Mr ANGEL: Certainly. The Federal Government did instigate a voluntary agreement with industry to remove plastic microbeads from various products. I will say that agreement was backed up by a threat to regulate. It was not a, sort of, hands-off exercise. Their reports now say that over 90 per cent of plastic microbeads have been removed and, of course, that echoes what we are proposing on plan B for the packaging covenant that there is a very clear threat to business that if you do not achieve some very specific targets by mid-next year then you are going to be regulated.

The Hon. PENNY SHARPE: Thank you. I have got a question for Mr Hutcheon. I know Boomerang Alliance does a lot of work with, obviously, all different businesses and in some way or another businesses across Australia are having to engage with this because the States are moving in all of their different ways. You stated in your evidence that you think there is not a lot of pushback on that, but is the contention about the times around phasing?

Mr HUTCHEON: Probably, yes. The broad answer is already we have stakeholders in other States looking at and accepting that certain products will be phased out. Already in South Australia you have acceptance around their laws, which are in place as of 1 March. In Queensland, where I am operating, there is no concern about the focus dates of the phase-outs, which will start on 1 September. But, yes, there is always that tension in these discussions about stakeholders and manufacturers wanting to hold off as long as possible. Generally speaking what I am hearing is that introducing these bans and the phase-out is generally accepted based upon the other jurisdictions' schedules.

Mr ANGEL: Can I just add, there is agreement to legislate on a small list, and you saw that reflected in the meeting of environment Ministers last communique. What industry is now largely concerned about is national harmonisation, that each State is having a different list. Frankly, if they talked about this a few years ago then maybe we could have got a nationally harmonised list, but the horse has bolted and I do not think there is any reason for New South Wales to lock itself into a small list when other States are implementing larger lists of single-use plastics and industry is implementing them. It is not like they have to come to New South Wales like it is on another planet and they have to reinvent how they are going to approach the issue. They already know how to approach the issue.

It is frankly somewhat similar to the attitude taken by industry, including the packaging covenant on container deposit schemes. The reason we do not have a national container deposit scheme is because the industry lobbied very hard to stop it at a national level, then States moved. Everyone is now working with each State and eventually there will be harmonisation of some key features, and there are processes in place for that already. Our response to industry is: Sorry, you missed the boat. We tried to get you to do it nationally and we are not going to wait around for the plastic pollution problem to get worse and worse while you decide to become ideologically comfortable with some form of regulation.

The Hon. PENNY SHARPE: Understanding the international position of Australia, has Australia just not signed on to the global agreement?

Mr ANGEL: The conversation about a global agreement is still in its formative stage, I think you would say. There are no specifics about what would be in a global agreement. We do welcome the Federal Government's commitment to engage regionally and globally on developing a plastic pollution treaty. Certainly we think there needs to be some work done in detail in coming months about what should be in that treaty so that Australia can actually lead on what is in that treaty, particularly given the enormous plastic pollution problems in the Pacific and Asian regions. It would be good for New South Wales to find a role for itself in that process.

Mr HUTCHEON: Could I just add maybe to your question as well, because the global treaty is essentially about trying to deal with marine plastics, rather than a phase-out of things. There is a thing called the international Plastics Pact, which has very, very similar goals to what you are seeing happening in this country. We also have the European Union, which has similarly banned and phased out these products in 2021. The European Union is also insisting upon manufacturers taking responsibility for the costs of collection and processing of their packaging from 2024. This is all happening now.

The manufacture of plastics is a global industry. The manufacturers who provide into this country also provide into the European market. It is very easy for us to piggyback, as it were, upon what is happening in Europe and to mimic, if you will, all those sorts of things that are occurring. To my mind, it is perfectly possible for us to

simply mimic all that and understand that those who manufacture these products are already prepared for Europe, and therefore they can prepare for this country and obviously for New South Wales as well.

The CHAIR: Excellent point.

The Hon. MARK BUTTIGIEG: I was interested to hear what appears to be different approaches from the European regime to here. It seems to me as though they have gone for a more market-based solution by integrating the stewardship into the costs of production, and therefore the market works it out because it ends up being more expensive down the line to cater for that full life cycle as opposed to what appears to be a regulatory approach here of banning. Is that an accurate assessment or not?

Mr ANGEL: No. The extent of producer responsibility laws in Europe are regulatory instruments. Obviously they discuss the targets and the processes with industry before passing that legislation. But, no, it is not a voluntary process or a market-based process in Europe. The extended producer responsibility sets the targets and then that flows back into the production of pricing decisions of industry. It is not the reverse.

The Hon. MARK BUTTIGIEG: Has there been any consideration of a market-based mechanism? In other words, if the negative externalities of plastic pollution are integrated into cost by some sort of levy or tax-based system, similar to what we have been talking about with an environmental treatment solution, has that ever been discussed anywhere?

Mr ANGEL: I think there have been some vague discussions on that, but whenever anybody sees the word "tax" they run away from it. It is true that the Mindaroo Foundation that Twiggy Forrest supports is suggesting a tax on plastic, not actually the downstream products. That is a live discussion. It may happen if things get continually more serious and industry fails to respond. I frankly think that the regulatory approach, which can implicitly have a cost, is a simpler way than having another giant debate about a tax. But, if nations become impatient with business, then the regulatory impact of a tax will continue to be discussed. I really do not think, like some of the previous conflicts, for example, on container deposits, that business can delay action. They delayed action on having container deposit systems in Australia for many, many years. I do not really think this issue is like that. There are way too many scientific, government, community alternative businesses that produce non-plastic items in the mix for this to slow down.

The Hon. SHAYNE MALLARD: Thank you for your submissions and the work you do regarding the environment. I had some involvement with a packaging covenant a decade or two ago with the Do The Right Thing campaign, which was funded out of the covenant. People might not be aware of that. I know that was industry trying to get ahead of the regulatory or banning proposition, which was starting to gain movement. It is interesting to hear you say that has been audited, and in your view it has not worked from the audit perspective and not reduced plastics in the environment.

Mr ANGEL: Yes. The figures speak for themselves. The packaging covenant, I might say, to its credit, is releasing much more transparent information so that you can actually track what little progress we have made. There were a couple of percents of improvement over the last year. The other thing about a covenant is that in previous years they just had completely dodgy statistics. They do seem to have got on top of that problem and that is why we are now getting better data on only 13 per cent of plastic packaging being recycled and only 4 per cent containing recycled content. Now we actually know the facts.

The Hon. SHAYNE MALLARD: A lot of the changes in the environmental space, for example, return and earn container deposit, are driven by consumers changing their habits through educational awareness and pushing that onto the market. There was a lot of clamouring for us to ban single-use plastic bags in supermarkets, but Woolworths and Coles and other supermarkets came to the fore and took them out of their shopping systems before anyone banned them. Other shops have followed. Consumers really drove that. I am reluctant to use the blunt instrument of a ban if we can modify consumer support to change it. I have a couple of questions for you. Has the removal of single-use plastic bags from the giant supermarket system reduced those type of plastic bags in landfill and in the environment? That is one for you to come back to me on. The other one is this: Is there a model like return and earn that could work to eliminate plastics or reduce plastics in the waste system?

Mr ANGEL: The last point, the reason return and earn works is, one, the 10c refund. Secondly, drink containers are of a dimension and material that it is worthwhile collecting them and then they can be sold on the market because they have a high value and can be taken out of the contaminating yellow kerbside bin. On the market they attract a higher price. All of the other items, it is impossible to create a collection system. The cost of that and the impracticality of collecting all the straws that are used in a day, or collecting all the coffee cups that are used in a day, is impossible and the material content of it is just not viable to be sold on the market. So you need to bring in the ban option. Drink containers and those other items are two very different products and

materials. In regard to single-use lightweight plastic bags, which as you say some of the major supermarkets banned, yes, that has reduced the use of lightweight plastic bags. But it has now been replaced with somewhat slightly heavier plastic bags which cost about 15c and it does not seem to bother shoppers for that price. The thing we cannot get from government or the supermarkets is how many of those slightly heavier plastic bags are only being used once.

The Hon. SHAYNE MALLARD: But those heavier plastic bags are recyclable, are they not?

Mr ANGEL: Well, that is the same problem. How do you create a collection system, except for those soft plastic bins in supermarkets, for those recyclable thicker plastic bags? The point about reducing plastic pollution or its wastage in landfill is to actually prevent that train of material being wasted or ending up in the environment. There are plenty of examples of thicker plastic bags being littered. At the container deposit scheme depots—and I do help out there now and then, at one we are involved in—people bring in a number of thicker plastic bags and they do not want to take them back. They have to be disposed of. I think Mr Hutcheon has something he can say on the push for even thicker plastic bags by business and their alternative voluntary approach. But it comes down to how practical it is to collect the thing and sell it. It is really hard to sell thicker plastic bags that have been contaminated by food or are wet. They just do not go well to make new products.

The CHAIR: Mr Hutcheon, do you want to add to that?

Mr HUTCHEON: It is very, very clear that the bans that have been imposed in all jurisdictions, apart from New South Wales, on lightweight bags have had a great impact upon the number of bags that are in the economy and therefore what are littered. That has made a really big difference. When it comes to the switch that that created, the main supermarkets estimated that between about 70 per cent and 80 per cent of their customers have switched their practices to having re-usable bags, which means there is probably 30-odd per cent of people who are now more habitually using the heavyweight plastic bags. To our mind, that is the next thing that needs to be addressed. The obvious and easiest way of dealing with that is to have similar arrangements put in place for heavyweight bags so that we can get all consumers to switch to genuinely re-usable versions and we can discard the single-use heavyweight or lightweight plastic bags from use and therefore resolve a litter problem.

Mr ANGEL: The big supermarkets are not the entire market. There are millions of little shops and consumers going into those shops who are still using lightweight bags and they are still being littered.

The Hon. SHAYNE MALLARD: There is consumer pressure. I can tell you, if I go to Chemmart I constantly criticise the fact that there are plastic bags there. These places have to catch up with the situation set by Coles and Woolworths, which is driven by consumers.

Mr ANGEL: Sorry, what is driven by consumers is the illumination of the problem but nobody goes into a shop and says, "I am not going to shop here because you are giving out plastic bags." That is really the philosophy that was pushed by Do The Right Thing, but it is always the consumers' problem. A consumer never said, "I want lightweight plastic bags for every product I buy in the supermarket." They were never part of that decision. Now they are being made part of the problem and being told to exert social pressure on dozens and dozens of shops they might go through when, in fact, if you ask them, "Do you want to ban lightweight plastic bags?" the vast majority of the consumers say, "Yes." They do not have a problem with it. The problem that industry tries to create is that there is going to be some great consumer backlash or consumers are going to stop buying their products because they are not getting free plastic bags or paying 15c for plastic bags. It is simply not the position. Consumers are telling governments and politicians to do something, not put the blame back on them.

The CHAIR: I will jump in with a question to explore the claims around compostability and recyclability. You mentioned in your opening statement, Mr Angel, the fact that lots of the companies are claiming this and that is what the packaging covenant has claimed as well. What are the problems? Why is it so easy to claim that things are recyclable and compostable? This is what everybody is saying. Let us go with compostable first because there are issues with the oxo-degradable claims.

Mr ANGEL: I might pass to Mr Hutcheon. We do have Australian standards on compostability and it has been difficult until the recent bans to stop business greenwashing that term and using "biodegradable", or what have you. The oxo-degradable products of course are not compostable or recyclable. All they do is break up into tiny bits and hang around for decades polluting the environment.

The CHAIR: Can you explain very carefully the particular difference? We will probably get this in the report. What is oxo-degradable?

Mr ANGEL: Oxo-degradable bags contain a certain chemical that make them break up over time. They do not disappear into molecules that are harmless in the environment. Mr Hutcheon does have a particular interest

in the standards for compostability and re-usability. It is one of the issues. When governments ban certain products, they have to be very, very careful that they do not open the door to fake products that are claiming things. The Federal Government in its National Plastics Plan had a component that talked about the ACCC looking very closely at various claims by business.

The CHAIR: Mr Hutcheon?

Mr HUTCHEON: If I could add to this, Madam Chair, globally you will see that there is the same goal that is being expressed and that is that all plastic packaging should be re-usable, compostable or recyclable. That is reflected in this country. Of course, the issue is, just because something is recyclable does not mean it is going to be recycled. There is a real problem in terms of a lack of standards about what we mean by those terms. In the international Plastics Pact, for instance, they outline the fact that if something claims to be recyclable or compostable, we need to have a standard to ensure that it is in actual fact good to be recycled in practice. You can apply the same thing to re-usability and to compostability. The next thing that we need to be very much looking at is what the standards are for what we claim to be a re-usable product, a compostable product and a recyclable product. Currently we have a focus very much on recyclability. There is a thing called the Australasian Recycling Label that has been introduced but that label is simply an instruction to a consumer as to how to discard a particular product that is recyclable; it does not ensure that that product is recycled. Part of this whole agenda should be that in this country we set standards for re-usable, compostable and recyclable so that everyone is very clear about what that product is and that it has been manufactured to be as it claims to be.

The CHAIR: Okay, thank you. In relation to compostable, are there different levels of quality of compostable? When we say "compostable" in the draft bill, are there standards? For example, we are having bio packet at some stage, as well, I believe, and we will be talking about that. Are there companies that are doing it better or is it all just one—it is compostable and it takes however many days to break down. Could you expand on that, Mr Hutcheon?

Mr HUTCHEON: Yes, absolutely. There is an Australian compostable standard for both commercial and home composting. The actual commercial standard is AS 4736 and the home compostable is AS 5810. This is what most jurisdictions and most stakeholders and manufacturers would say would be the best standard for this country. That is the standard that we would like to see set in this country. That is the Australian standard. It has an additional test compared to the other standards of a worm test, which is very important to make sure that none of the toxins remain in any product once it becomes compost and can be re-used. The other standards are European or US standards, which are not quite as high as the Australian standard is, but they are very common in the market. What you will find is that many manufacturers and suppliers claiming that their product is compostable but, in reality, what we need to ask is: Is it compostable to the Australian compostable standard or not? That should be the measure and the test.

Mr ANGEL: And I think—Mr Hutcheon might confirm—that some of the State legislation makes particular reference to those Australian standards.

Mr HUTCHEON: That is correct. Currently you have Queensland legislation that is insisting upon that particular standard—the Australian standard. Other jurisdictions may or may not follow; although, currently, in the case of South Australia, they are not accepting the Australian compost standard for the things they have currently banned, which are things like straws, stirrers and cutlery.

The CHAIR: I just wondered as well whether you would care to make any comments—beyond what is in your submission, I suppose—in relation to the plastics reduction commission that is in the draft legislation, Mr Angel?

Mr ANGEL: Yes, we see that as a very important part of the legislation for a few reasons. Firstly, we have been disappointed at the role of the environmental bureaucracy over the years on being on the front foot of this issue. We think that a plastics commission, particularly with the type of representations suggested, could really push things along. It may come as a surprise to some people but the Environment Protection Authority [EPA], over a decade ago, actually opposed container deposits. A plastics commission would certainly bring greater focus onto the issue and push various elements of decision-making along. I think, as Mr Hutcheon has alluded to, other States in regard to single-use have set up committees of stakeholders, and we certainly get through that type of process quite a strong resolution of issues. Thirdly, there are a whole range of other plastic waste and pollution sources—whether it is marine, agriculture or plastic factories—that need a focus. Some of those are easier to solve than others but they are part of the river of plastic pollution that is going into the environment.

The CHAIR: Mr Hutcheon, did you have something to add?

Mr HUTCHEON: Yes, if I could add to that, what we have to see is that we have a plastic problem. It is not just litter, it is also waste. Whilst there has been a focus on consumer takeaway plastics, which is only right because that is where a lot of the litter is, there is a plastic problem in retail, in agriculture, in business and in the marine environment. So the notion of a commission looking at a long-term agenda of how to solve all of those other plastics would be a very good thing to see. In cases like Queensland they have established what they call a plastic pollution reduction strategy. That is their way of trying to deal with this in a long-term continuous improvement approach. So having a commission to actually lead and make sure this happens sounds to us to be a very good, positive suggestion.

The CHAIR: I was also wondering whether there are particular elements in different States—Mr Hutcheon I might throw to you first for this one—as to what has made that State and that State Government more successful or moving sooner or earlier than New South Wales has that we either need to put into legislation or think about beyond that? Mr Angel, you commented at the beginning about how New South Wales is lagging behind. Are there particular things that other States are doing really well to help us move more quickly on this, Mr Hutcheon?

Mr HUTCHEON: To my mind, it is a fact that those jurisdictions have identified that they have a problem and they have identified that the best way of dealing with that problem is through regulating some of those really problematic plastics, and that they do not consider there is a better way of doing that. They have also done it in the sense that they have brought along all the stakeholders with them, as I alluded to earlier. I do not see a lot of opposition to what those States are doing amongst the retailers and manufacturers of these products. It is replicating very much what has happened in other parts of the world, particularly in Europe. So I guess my point to New South Wales is that it is probably time to catch up because everybody else is doing it, it is making a difference and most of the market is already accepting and supporting what is happening.

Mr ANGEL: When you look at the States that have acted, you have South Australia, a Liberal government—admittedly South Australia is very proud of being an environmental leader. Western Australia and Queensland are Labor governments, as is the Australian Capital Territory coalition arrangement with The Greens. I note New South Wales has had, let us call it, a philosophical encumbrance about banning things. I take it from the meeting of environment Ministers' decision to include lightweight plastic bags in their small list of things that are banned that we have now got over that philosophical problem. New South Wales may still have a residue of that philosophical problem with a bigger list, but while we cannot particularly replicate the motivations or dynamics that led to other States banning items in New South Wales I would suggest that the driver, given that New South Wales is one of the last States to act, is why are we last?

How long can we continue the behaviour of being last? I think that is an incredibly embarrassing position for a government to be in and I do not think it is a position that the community accepts. Sure, there may have been other forces or other influences in other States that led to their acting, but New South Wales is the biggest State, economically. It is producing a lot of plastic pollution. The stuff is not coming from Asia. That may be the case for part of the plastic pollution in northern Australia but that is not the case here. It is our plastic pollution. If the Government wants to get onto the front foot it needs to be ambitious.

The Hon. BEN FRANKLIN: I apologise for being late. It was a medical appointment that I could not move. I genuinely appreciate you being here and the work that you have done in this space. There are just a couple of issues that I wanted to raise—and again, apologies if they have been raised. If they have, please tell me to refer to the *Hansard* and I will go about my business. What I was interested in, firstly, is the alternatives that are available if action is taken on single-use plastic, and if you could comment on the appropriateness and availability of alternatives and how that would work.

Mr ANGEL: Mr Hutcheon is well attuned into that because the Boomerang Alliance has a Plastic Free Places program around Australia and that very issue is what the cafes and other businesses ask us.

Mr HUTCHEON: We run a thing called Plastic Free Places. We have about 12 projects that are currently operating or have been operating around the country. We engage directly with cafes and food outlets and our intention is to try and get those cafes and food outlets to switch their practices away from single-use plastic packaging. What we do focus in on is, first of all, the avoidance of any packaging. There are some real gains that can be made by avoiding things, particularly straws. What we have found, just simply by changing practices in cafes, is that straw use can be reduced by at least 70 per cent right from the start.

There are lots of issues around avoidance. Our preferred agenda is to try and get cafes to switch to re-usable products—and many do. Where you cannot avoid and where you cannot re-use, we allow the use of non-plastic or certified compostable products as an alternative. This is very much a transitional approach because

ultimately we would like to see re-usables as the common practice for all. But there are products that are alternative to single-use non-biodegradable plastics right on the market, right now at a comparable price that can be produced as soon as possible.

The Hon. BEN FRANKLIN: That is fantastic, but what is that availability of those products like? Are they sufficient, do you think, to meet the sort of market demand if the single-use plastics were phased out? Or do you think that they would necessarily ramp up if that happened?

Mr HUTCHEON: In the States that we are working and the places that we are working—and I say that there are 12 now and this is about to turn into 20—we do not have a problem with supply. All I can say is the market is ready. Indeed, if anyone goes to a marketplace now in any part of this country they are likely to get a compostable food ware, whether it is a bagasse bowl or a non-plastic wooden fork or whatever. The market is already shifting. This is just a simple case of shifting it and making sure that by regulation we are only using a better product. We do not have any concerns that the non-plastic or the compostable market can replace the existing market right now.

The Hon. BEN FRANKLIN: Terrific, thank you. I have one final question, about microplastics. Do you feel there is sufficient research underway on their impact? There are contentions in this space.

Mr ANGEL: There has been increasing attention to microplastics because a lot of the media has pictures of these large plastic items on the surface of the oceans when, in fact, the vast bulk of plastic is the microplastic that is broken up going right through the water column. Of course, that is the plastic that marine life eats—at least the smaller marine life, which is the lower part of the food chain, which goes up through the system. Total Environment Centre does have a program called the Australian Microplastic Assessment Project that is investigating shoreline microplastic occurrences. There is now a map with a number of hotspots and it is basically a citizen science project with a reasonably simple but robust methodology to measure the amount of microplastics. The microplastics, of course, are the things that we end up eating when we eat marine life that is contaminated with that plastic. The amount of research on the health impacts of that plastic is still a question mark about the actual impacts, but my response to that is why would you want to eat plastic, regardless of suppositions about health impacts?

The Hon. BEN FRANKLIN: Do not get me wrong: I am not trying to minimise the risk. In fact, I am trying to push the alternative that we should be doing more research.

Mr ANGEL: No, I understand.

The CHAIR: We just have one more question from Mr Pearson and that will be the end of this session.

The Hon. MARK PEARSON: Mr Angel, you said something earlier in your introduction about plastics in the air. Apart from the obvious large ones, are there microplastics floating in the air?

Mr ANGEL: Good grief, yes. That is why there is plastic at the top of the Himalayas and the Antarctic. It is not just in the ocean; it is in the air. A significant source is tyre dust, of which there is an enormous amount. That ends up being in the air and we breathe it in. There has been some quite good recent research that we are not only eating plastic but we are also breathing it in.

The CHAIR: On that very cheery note, we have to finish and call this session to a close. Thank you Mr Angel and Mr Hutcheon for appearing.

(The witnesses withdrew.)

HELEN SLOAN, General Manager, Southern Sydney Regional Organisation of Councils, affirmed and examined

JUSTIN BONSEY, Strategic Lead, Resource Recovery, Southern Sydney Regional Organisation of Councils, affirmed and examined

MONICA BARONE, Chief Executive Officer, City of Sydney Council, affirmed and examined

GEMMA DAWSON, Waste Strategy Manager, City of Sydney Council, sworn and examined

TRACY CHALK, Waste and Resource Recovery Manager, Penrith City Council, sworn and examined

The CHAIR: Can I just get an indication of who is making an opening statement out of the five of you? Ms Barone, Ms Sloan and Ms Chalk. Okay, Ms Chalk.

Ms CHALK: Thank you for the opportunity to attend the inquiry today and further support Penrith City Council's submission with regard to the Waste Avoidance and Resource Recovery Amendment (Plastics Reduction) Bill. I concur with the comments of my colleagues from Southern Sydney Regional Organisation of Councils [SSROC] and Sydney City Council. However, I have chosen to focus on one particular aspect of our submission. Penrith council is well regarded within local government, especially in waste management and particularly through the early adoption of our three-bin food organics and garden organics [FOGO] system—which is not only taken up by our residents but is also utilised by our civic operators and is recently being adopted into our commercial sector. Penrith council supports the introduction of a targeted plastic reduction plan as part of the waste avoidance and resource recovery bill as we believe it to be the most important step towards increased waste avoidance, diversion and resource recovery.

The targets outlined also promote and inform all levels of our waste strategy, be it State, regional or local. The council has provided comments within its submissions on a number of the proposed sections, but I would like to highlight section 48D (iv). Council introduced its FOGO domestic food organics as its weekly garbage service in 2009 and along that education journey we have become particularly aware of the need for consistency around the standards for compostable packaging. The residents' use of compostable bags within the FOGO system has not only increased patronage but the quality of the feedstock for processing. Compostable bags have decreased contamination from plastic and improved the return product.

Compostable packaging needs to meet Australian standards to ensure it can be managed by home and commercial composting systems. Residents need to be able to readily identify the difference between compostable and biodegradable to maintain and continue to grow the benefits of the FOGO practice. Recyclable packaging needs to ensure it is easy and convenient for residents and that recycling options are clearly provided on the packaging. Council also believes increasing the focus on research and development would strengthen the goals of the bill. It is important to ensure that the solutions for plastic waste are long term so that councils can confidently invest in solutions and work them into our waste strategies. This would certainly assist our journey for further education and practice into the circular economy.

The CHAIR: Thank you very much. Ms Barone.

Ms BARONE: Thank you very much for the opportunity to address you today and we would like to very energetically encourage you to do anything you can do to deal with plastic pollution. One of the things that we have been doing through SSROC, working across the 11 councils that are part of SSROC and working as well across metropolitan Sydney, is to try to work through all of the different waste streams that local government comes across to see what solutions we can find. But what we have really learned is that plastic is extremely difficult, and one of the reasons is that there are so many different types of plastic and there are so many different combinations. Even in plastic packaging there can be different types of plastic in that packaging, and so dealing with recycling plastic and plastic pollution is extremely complex and really requires a systemic approach. Just as the circular economy proposes, we really need to look at every single input and output that is in that whole plastic supply chain and reform the whole system if we are going to get that to work.

I just want to say a few words on three key points that contribute to that. The first of course is about leadership and policy, which is what we are talking about here today. The second is about working with industry. The third is about working with government, obviously with a focus on local government. What I would say is that we clearly need strong policy on this. There are a few things that I would like to stress that are already in that bill or that we think ought to be added to any deliberations here. I heard a number of comments about banning. I would suggest that when you look at the life cycle of certain plastics, if you cannot find a solution for that plastic to be re-used or recycled then that is when you have to think about banning. There are certainly plastics in the

waste stream for which there is no solution. There is nothing like banning something to encourage scientists, entrepreneurs and industry to find solutions. But if you cannot find a solution, that product should be banned.

The second thing—and these comments are interrelated—is that the amount of recycled plastic in a product is something that should increase over time. You have to recognise that it is possible to actually have a lot of recycled product in certain products, but we do need to give industry the time to develop ways of producing that product and to get consumer appreciation of that. I will come to an example in a moment but I do also want to talk about the need for harmonisation, and the speakers before talked a lot about that. They mentioned quite rightly that if you are selling a product on a supermarket shelf in New South Wales, you are probably selling exactly the same product on every supermarket shelf and you may be selling that product globally. You cannot have a situation where New South Wales mandates 30 per cent recycled product, Victoria 40 and the ACT 20. We do really need harmonisation when it comes to that.

My second point is about working with industry. I had the great pleasure recently of spending some time with some industrial scientists and industrial designers who work in this field. What they demonstrated was that they are more than capable of producing products that are made from 100 per cent recycled plastic. Obviously you cannot put every product into something like that, but what they showed me were products that had 10 per cent recycled plastic, 30 per cent recycled plastic, 80 per cent, 100 per cent. The issue was not that they could not produce that kind of packaging. The issue was that, obviously, the more the recycled product in that packaging the less attractive that packaging was. If you take a cleaning product that has a lovely bright pink product in it and it is up on a shelf in a virgin plastic bottle—it is a lovely clear plastic with a lovely bright pink product. But by the time you get to 80 per cent, or 60 per cent, 100 per cent that bottle, at the moment, is very grey. They can do it, but what they need—which is where Government comes in—is a level playing field.

If everyone has to have 80 per cent recycled plastic then every bottle is grey and everyone is competing at the same level. But if they are going to be the first mover creating or producing that bottle that is not as attractive as a virgin plastic bottle, they will not go. This is where the nexus between legislation, regulation, working with industry and then working with the consumer comes in. That is the final point we want to make. As local government, we work every day with the community who are those consumers, right? So we are every day working in households talking to them about recycling. But we need that whole system to be reformed before we spend that time educating the community about what they should and should not do. Until we have answers about how this plastic is going to be processed at the end, it is very hard to determine what the messaging at the front end of that system should be. Thank you.

Ms SLOAN: Thank you for this opportunity this morning. The Southern Sydney Regional Organisation of Councils, or SSROC as you have heard it referred to, is an incorporated association wholly owned by the 11 councils south of the harbour, including the city, and covers a population of 1.7 million and around a third of the population of metropolitan Sydney. Those 11 councils manage about 20 per cent of New South Wales' household waste collections. SSROC supports the objects of the bill and encourages the Committee to use it to establish a circular plastic supply chain that minimises waste, creates new jobs, and drives economic growth. We see this very much as an economic opportunity as well as a means of reducing plastic pollution. We have several suggestions, though, for changes to the bill before the bill's objects can be met.

Firstly, there are legislative barriers to the use of recycled plastic materials; for example, the definition of waste in the Protection of the Environment Operations Act does not easily permit waste, once being processed, stop being waste and become a new resource. A Queensland end-of-waste framework is a better model than we have here. There is also the current order and exemption framework that lacks transparency, lacks time frames for approvals and lacks clear rights of appeal. That creates uncertainty and so makes investment, especially for smaller and emerging businesses, risky and unattractive. Uncontrolled and misleading labelling with terms that I have heard mentioned already, like degradable and oxo-degradable, confuses people and contributes to contamination in the recycling bin. Mandatory use of a uniform recycling label, such as the Australasian recycling label, would help both the environment and the economy.

Secondly, the targets in the bill are very appealing but very ambitious. Plastics are so deeply embedded in products and packaging that it will inevitably take time to change, especially when much of it is imported from overseas. Plastics processing and recycling infrastructure will be needed. New products will need to be developed where there is no existing substitute. Investment and new regulation will be needed. Thirdly, we support the Plastics Reduction Commission, especially its focus on improving data and working to targets. Its remit should include reduction and recovery of plastics, and it must be properly resourced with a ring-fenced fund. This could be from increased hypothecation of the waste levy. New South Wales reinvests into the waste sector only 11.5 per cent of the funds collected compared to 66 per cent in Victoria and 50 per cent in South Australia.

Councils have an important role in the waste material value chain and are keen that the New South Wales legislative framework should enable—and not constrain—circular economy policy. The framework should equip industry and local government to respond agilely to an evolving environment that is rapidly rendering traditional approaches outdated. Legislation that will support councils' circular economy aims is welcome—including this one—to target plastics waste and associated pollution. Thank you.

The CHAIR: Thank you very much. We will now go to members for questions. I will kick off with a couple. I think you are the best witnesses to expand a little bit more on the impacts of the waste levy hypothecation and the fact that you, Ms Sloan, just mentioned that it is the only 11.5 per cent. What do you see as the impacts of that? What is the impact of a small amount of the waste levy being spent compared to other States, as you point out? What do you think are the impacts on the whole waste and recycling industry in New South Wales?

Ms SLOAN: It makes it very difficult from the councils' perspective to plan effectively for the future when our grant funding is very short term and not assured for any length of time. We at SSROC employ staff on grant funding. Those staff have no tenure, basically. They are on short-term contracts. There are all kinds of opportunities, potentially, for investments of that into the industry, into development of new processes, development of new infrastructure. It is huge. It is just an underfunded sector. It is an essential service. Fundamentally, going way back, waste was an essential public health issue. That has not gone away. If we stop collecting the waste there is still a public issue there. The issues are just changing so there is fundamentally a public health risk.

The CHAIR: I note also that the City of Sydney's submission suggests that funding is required to achieve waste reduction targets. Some of that funding could potentially come from the waste levy, if there was an increase in the hypothecation amounts?

Ms DAWSON: I think I would just like to add that. With a lot of government funding at the moment, Federal and State governments, it is really directed at developing facilities that can accept and reprocess materials. The big cost for councils—bear in mind that the money we spend on collecting waste from residents, we charge back to them, so we have to be careful about how much we are charging them every year. The best way to get the best environmental outcome is to separate out material streams, but separating out material streams costs a lot of money because it is different. For every bin you have, it is an extra collection service. It is the most expensive part of what we do. Yes, we have a processing cost at the end but it is that investment in the collection and the transfer of that material that is a considerable cost for us.

If we are looking at introducing new legislation and trying to invest in processing facilities, but those are the facilities that get a gate fee from us. They actually get money every time they take waste over their gate. What we need is the investment in the collection infrastructure because we cannot just keep passing it back onto the consumer. We talk about their not being a tax; well, there is a tax on that because they are paying for everything they put in that they are consuming. So we do try very hard to educate and get our residents to use less, but when the materials that they consume are all neatly in packaging, it is very difficult to source out and search out items that are not in that packaging. I feel that we need to consider the whole system and not just the processing at the back end but also that collection infrastructure and people and their everyday use.

Ms BARONE: If I could add to that, we are obviously eagerly awaiting the 20-Year Waste Strategy because many of these things, we hope, will be answered in that strategy and then we will be able to align our effort. One of the issues is that we are all moving in different directions. We are all doing the best we can but we are moving in a kind of policy vacuum. So irrespective of whether the money goes to councils, to the Environment Protection Authority [EPA] or direct to industry—whatever—the point is we need transparency about where the money is going and what outcome that money is going to achieve. So just like other forms of infrastructure—Sydney Water has to determine the infrastructure it is going to invest in and then as a consequence its pricing is set in order that it can generate enough income to embellish the infrastructure to meet the water needs of the community. Similarly, we have to think about the go-to-whoa infrastructure we need in order to deal with the issue of waste. But first we have to decide what we mean by that. That is the policy piece. What exactly are our targets and our goals as a State?

The Hon. MARK PEARSON: What do you think of the product stewardship that is occurring in Europe to address the whole story or the whole issue from beginning to the end as a policy or as a way of dealing with the responsibility of this from beginning to end?

Ms BARONE: We have a policy position at SSROC which is that your waste should be processed as close as possible to where you create it. Because if you can just ship away and not see the consequence and let some other community or country deal with your waste, that does not cause you to be responsible for what you

are doing. Similarly, if you have a responsibility over the packaging you create—you have a responsibility to collect it and process it and pay for that—you are going to be more thoughtful about how much packaging you put around your products. We all shop and we all see the things that we cannot buy unless they are surrounded by plastic packaging and cardboard packaging. There are other ways of doing it. So, yes, clearly—but you cannot just have one solution, you have to have the entire solution and part of the solution is the stewardship. If you are responsible for collecting and processing some of the packaging you create then you will be more thoughtful about how much packaging you create.

The CHAIR: I wanted to jump in on that, Ms Barone, because in the City of Sydney's submission it says that "activity in our local government area produces more than 5,500 thousand tonnes of waste every day"—which is just mind blowing—"of which the City directly manages less than 10 per cent". Is that because there is a lot of construction waste? Could you explain what that 10 per cent is of the 5,500 and what the rest is?

Ms DAWSON: I guess that was—

Ms BARONE: Construction and commercial.

Ms DAWSON: Construction and commercial is the predominant stream. I guess just to clarify, part of the issue we have is that we actually do not know exactly how much waste is ever produced in our LGA because that level of data is not available. Data transparency is one of the key issues that we have to manage. We have estimated that the 5,000 is construction and commercial as well.

Ms BARONE: Can I say, local government picks up domestic waste but we do not have the authority to pick up commercial waste and that is an issue because it is twofold—one is that we do not exactly know what is happening so we cannot measure and have a sense of what is in those waste streams and where it is going, and the second thing is that in the inner city it has a huge other impact, which is that you could have a street with 10 shops. They could have 10 different contracts and 10 different trucks coming at different times a day to pick up the commercial waste.

The CHAIR: I have one more question before I throw to other members, just recognising that this is an inquiry into a bill to phase out single-use plastic. I just wanted to make sure we ask some questions about the bill and particular things as well. One thing in relation to Ms Sloan. When you are talking about the definition of waste in the Protection of the Environment Operations Act, I wanted to, firstly, ask you to explain more thoroughly what that means in terms of to clearly distinguish between waste and resources. Do you see a need therefore for this bill to make amendments to the POEO Act or additional amendments to make sure that that is covered? I am not quite—if you could just expand on that particular recommendation.

Ms SLOAN: The POEO Act defines waste, I think, as just garbage and a couple of other things, so it is very non-specific. It does not recognise source separation or anything like that, and the regulations are imposed on waste. Once your material has gone, even when it has been processed and after it has been processed, it is waste. So it is regulated as waste and continues to be regulated as waste. What the Queensland end waste system does is actually recognise that once a material has passed through a process and been transformed into something else, it is now a resource and it ceases to be regulated as waste and becomes subject to another regulation, whatever the appropriate regulation is.

Mr BONSEY: I might add to that as well because we have had a lot of conversations as councils play a more active role in the supply chain to try to drive end markets for recycled materials. We have had a lot of conversations with manufacturers here in New South Wales to better understand the barriers. The definition of waste, for example, will subject any material that is separated, processed and then made available as a feedstock for a secondary—re-manufacturing, for example. Any supplier who deals with those materials will be subject to about seven years of documentation and all that. It is quite onerous to keep track of where that has come from, where it is going, how it is transported within the State and even out of State. This is for materials that have already been reprocessed. For example, let us take plastics that have already been reprocessed back into plastic flake, which is the base material that re-manufacturers can then use to make any variety of products. There is a risk element with that definition as well. For example, let us say those plastics are brought into—there is a new product that takes soft plastics and uses them as polymer-modified bitumen in roads, for example.

Because that is a plastic-derived resource, there is always the risk that the EPA might change their mind later on or something might happen where the regulation changes and that material—there is a chance it could no longer be allowed to be applied to land or used in that way, which means that all investment to create that product and to innovate up to that point will effectively have been wasted. Look at the mixed waste organic outputs example. There are tens of millions—maybe hundreds of millions—of dollars that have been invested into this infrastructure. Many councils have gone into contracts with their supplier and now it is basically at risk of

becoming a stranded asset and now they are having to invest even more to try to adapt it to the new regulations. So it is the definition of waste and not properly recognising materials as the building block of a circular economy and some of the onerous regulations around that.

The CHAIR: Very interesting. I will go to Mr Franklin. Are you still—

The Hon. BEN FRANKLIN: No, I was just following on something specifically that Ms Barone said and I cannot remember what is was now. So apologies. It was excellent, though.

The CHAIR: I am sorry. Mr Mallard, we will go to you.

The Hon. SHAYNE MALLARD: It is not a formal declaration but I should declare—members will be aware that I served on the City of Sydney and South Sydney councils for 12½ years, for most of those years alongside Ms Barone. I count her as a friend and a great professional. I was also on SSROC for a while. Some background knowledge here. The City of Sydney—correct me if I have got this wrong—sends all of its domestic red lid bins to a recycle all recovery facility at Eastern Creek. Is that right?

Ms DAWSON: Yes. MBT facility—mechanical biological treatment.

The Hon. SHAYNE MALLARD: So what level of plastics are you able to extract from the red bin process?

Ms DAWSON: Very little is extracted at that time. Once the plastics are mixed with—they are considered to be contaminated. There are market difficulties enough with our clean stream, which is in the yellow bin. Anything that comes out of the red bin—they are predominantly extracting metals and some glass. Everything else would go as landfill and then the organics separated for processing and recycling.

The Hon. SHAYNE MALLARD: That is where plastics get trapped in the organics and are creating that new regulatory issue that we have touched on. What about soft plastic contamination? With Jeff Angel there seemed to be some non-clarity about what plastic is recyclable as well. I was of the view that the thick plastic bags from a supermarket are recyclable but he is of the view they were not. What level of plastic contamination is there in the yellow bins—soft plastics?

Ms DAWSON: As a largely dense urban city, we have a lot of contamination in our yellow bins and soft plastics definitely make up a proportion of that. Food does and nappies do, but plastic bags are a huge inconvenience. What they do is—and I think you are probably aware—they damage the infrastructure at the sorting facility; they get stuck. Whether it is a thin plastic bag or a large plastic bag, it does not make any difference. It still causes problems. There are some councils who are looking into separately collecting—it is called "a bag within a bag". So trying to collect soft plastics within their existing services. We have not trialled that yet. A council in the Central Coast has.

The thing is that Redcycle, which is the organisation that collects a lot of the soft plastics through the supermarkets, have so much demand for their collections. They do not have enough demand for their products, and this is where the closed lid comes back in. They are getting to the point now that they do not want to offer any more services unless we can buy their products back. That has a bit of a probity issue for councils to say that we will only buy a park bench from this one service provider and it may not meet all of our specifications. So we definitely have an issue with soft plastics and I do not think it is going to go away anytime soon.

The Hon. SHAYNE MALLARD: That leads to my last question along this line—the issue of mandating. We often get witnesses asking us to mandate government purchasing percentages of recycled materials or material that is in the environment that could be used better like coal ash, fly ash. But in this instance—and SSROC could join in as well—are councils putting a mandate into their purchasing policies around recyclable plastics in the materials in the tender?

Ms DAWSON: We have a sustainability procurement policy, and what we are asking at the moment at this point in time is we are not mandating a recycle percentage but we are mandating a reporting of that. So every new product that is over a certain threshold that we are procuring, we are asking the bidders to tell us what is in the products they are giving us, what is their recyclability and also what is their recycled content. We are looking to move that way, but it is going to take a bit of time. I think the first thing is really signalling to the market that we are looking for materials that are recyclable and have recycled content in them.

Mr BONSEY: Would you mind if I add something quickly for that?

The Hon. SHAYNE MALLARD: Yes, of course. Please.

Mr BONSEY: From the SSROC perspective, I might draw your attention to a memorandum of understanding to prioritise recycled materials and procurement. It was unanimously adopted by all SSROC councils and that was a week before the Council of Australian Governments export ban time line was announced. That was in November 2019. What that does effectively is it gives preference to suppliers that can demonstrate they are using recycled materials, and that helps us meet sustainability targets.

Ms BARONE: Of course this is really important because of the volume that we procure. That is one of the reasons we work with SSROC and all the other councils across metropolitan Sydney in order to—the major project is called "Procure Recycled". That is the headline heading of the work that we are doing, which is to encourage that joint buying or at least the commitment to the same standards and targets. Obviously if the New South Wales Government joins in, then that buying power is enormous and that will demonstrate that it is worth creating these products because we will buy them.

The Hon. SHAYNE MALLARD: I will just add on the waste levy issue that was discussed before. Last week I opened the resource recovery centre at Blaxland for Blue Mountains City Council; $100,000 in waste levy. But a couple of years ago I opened the one for Penrith at St Marys.

Ms CHALK: You did.

The Hon. SHAYNE MALLARD: So reflect upon how that is performing in recovering plastics. I know there is a plastics area and there is a styrene foam area.

Ms CHALK: Polystyrene foam, yes.

The Hon. SHAYNE MALLARD: Paint and oils and batteries and all kinds of things. How is that going?

Ms CHALK: It is performing exceptionally well. It is in partnership with Cleanaway, originally Toxfree. It is not boundary-ruled—I suppose "regulated" would be the better word. Any surrounding residents can use that. We have residents from Blacktown and Penrith but not too many from Hawkesbury as they have their own. It is extremely well patronised, and I would be able to table the data.

The Hon. SHAYNE MALLARD: Please do. There are a hundred now in the State. The one in Blaxland takes commercial waste. I know it is only a small commercial centre in Blaxland, and Penrith is very different. Do you address commercial users?

Ms CHALK: We do not address commercial waste. It is considered to be a community recycling centre.

The Hon. PENNY SHARPE: I do not mind who answers this, really. I just wanted to get your understanding of where the New South Wales waste strategy is up to.

Ms BARONE: I think we hear that it is imminent and that we will get the strategy soon.

The Hon. BEN FRANKLIN: Excellent answer.

The Hon. PENNY SHARPE: That is what the Minister tells me every time I ask.

Ms BARONE: But we really desperately need that strategy. As I just keep reiterating, we are all working independently and sometimes at cross-purposes. One of the things that I will really stress and that all of us at SSROC have been working really hard on is that the quality of waste data is very poor. If you do not have good-quality data and if you do not have real guidelines and mandates around who collects what and how that data is shared, we are never going to really know the scale of the problem or know how to actually tackle which point of the problem that should be prioritised.

The Hon. PENNY SHARPE: In regard to the plastics strategy that the Government says is also imminent, do you have any sense of when that will make itself known?

Ms CHALK: None at all.

Ms BARONE: No.

Mr BONSEY: I believe that is going to be released together with the draft 20-Year Waste Strategy, which is also on the Minister's desk.

The Hon. BEN FRANKLIN: Imminent.

The Hon. MARK PEARSON: It is a whole new definition of "imminent".

The Hon. PENNY SHARPE: Imminent? Thank you. It just seems that we are trying to operate dealing with the bill in isolation to pieces of work that are happening. I am just trying to get a bit of a sense of that. I think the SSROC's submission talked about the time frames in this bill being unrealistic. Everyone has commented on the fact that it is different in different States. It is a bugbear of Australia and our Federation. Do you have any suggestions for the Committee in relation to the time frames in the bill and how we might be able to resolve some of that conflict?

Ms BARONE: What I would like to say about that—and I will throw it to my colleagues in a moment—is that you just cannot solve these kinds of wicked problems without true collaboration. That means government and industry and community. If we are serious, you get around the table. I think, as previous speakers said and quite rightly, the community is receptive. They want change. People in our local governments put everything into the right bin. They dutifully do it. They just do not really know what is happening to it, and can I say most of us cannot really account for what exactly is happening to it. That is a terrible situation.

The other thing is that industry globally is dealing with this. They just want people to get around the table, listen and collaborate. They know what they can and cannot make out of recycled plastic. They know what the consumers' appetite is for various things. They are worth listening to, but they also need government to say really clearly, "This is the policy and this is where we are going." That is not negotiable. We are going towards 30 per cent recycled and then we are going to go up to 50 per cent and then we are going to go up to 70 per cent. That is not negotiable. But you tell us—we will work with you on the time frame, the technology, all those sorts of things. But it has got to be a partnership.

When I say work with industry, however, I do not mean listen to one or two people and give them a great big grant. I do not mean that either, because otherwise you get other perverse outcomes which is various members of the sector get to prioritise the technology or the outcome that suits their commercial needs. We have to protect the public interest, so what is in the best interests of the community and of the planet, but then work in collaboration. We can work out those time frames if we can learn to properly collaborate.

The Hon. BEN FRANKLIN: Thank you all for being here today. I want to follow up on a couple of the comments that have been made already. The first, I guess, is around the responsiveness of industry to the needs of councils. I know, Ms Barone, you made some comments previously, which is what I was about to jump on, about some of the challenges there having 10 different operational systems and so on. You are also talking about the quality of the waste data. I guess my question is what is the relationship between industry and councils? Anyone can jump in here. Is it good enough? Is industry being responsive to your needs in this space? I hear what you say about government. Your point has been well made and well taken, but I am looking at what needs to be done in the industry space.

Mr BONSEY: We have spoken with industry quite a bit. Many of them tell us it is the quality of the feedstock and the quality of the material stream. That includes contamination. So the more contamination there is in the materials that we are giving them from kerbside, the less they can do with it. There are three ways that we can intervene in the quality of that material stream which we should consider as the building block of a circular economy with infrastructure and jobs. It really leads to everything. There are three ways. Regulation I think is the easiest way to do it with the highest impact. We absolutely support the ambition of this bill. The second is having clear guidance for source separation, so having a uniform recycling label, which the Australian Council of Recycling has also suggested is important, but also regulating claims of recyclability, biodegradability and so forth that are not linked to Australian standards. That is why we have a standard.

The third is having technology at the sorting facility. The technology is still nascent. We do not have the technology that can pull out all of the contaminants. They are willing to do it. The other big thing that they need is demand. If we can signal demand to them, that creates a favourable investment environment for them to invest in these important technologies and increase in capacity upgrades to meet that demand. They are certainly willing to go, but they also need the policy certainty to know that the Government will not change its mind. They need that demand and they need a quality material stream, which this bill goes a long way to achieve.

Ms BARONE: I think it is fair to say that there are going to be exceptional players who really want to do the right thing and people who are less interested who will be followers once policy and other things are set. But I just want to talk about the issue of what goes into domestic bins and how that is sorted and all the rest of it. I am a little concerned about what might come out in the waste strategy around things like harmonising the colour of bins and what goes in bins and all those kinds of things because you have also got to realise that Australia is a really diverse place and New South Wales is a diverse place. Seventy-five per cent of people in our local government area of the City of Sydney live in apartments. In some parts of the world you have six bins. There is

nowhere to put six bins in your apartment. There is no place to put six bins in a terrace house, but if you live somewhere else—so you have to have place-based solutions.

There is the behavioural piece. Once we are clear about what we are doing then we can focus on the behavioural piece and everyone can send the same message. But then there is the engineering solution. So in some instances it is going to be an engineering solution, which is maybe you only have two bins but then it gets taken somewhere and that is sorted out at the site because it cannot be sorted out in the home. There is a lot to go through here to get this to work. But definitely, regulating what goes in the bin at all is really important. If you can get rid of the stuff that you do not need to put in there, that would be great; then labelling the stuff that goes in really well so people are really clear about what they are doing; and then deciding whether it can be done in the home or in the business or does it have to be taken to a facility where it is then separated and processed. What is going to be the best solution?

Ms CHALK: Can I just add one response to that question? We talk about the facility. We are fortunate that for our FOGO we have a facility in our local area. But planning would be a major consideration. It is alright to have the feedstock or to have the product and have the technology and if we had all the other components that we are wishing we had here today, but if we do not have the infrastructure and the facility to take it to in a reasonable travel distance, then it is still not going to come out as a triple bottom line or a cost benefit-type scenario. Along with all that, our planning legislation is not kind to resource recovery. The demand on land in the Sydney basin, the cost of it, the zoning requirements where infrastructure for resource recovery or waste, as Ms Sloan is pointing out, is just not open to private, government or any sector establishing a facility that can meet the needs for us to meet the demands of circular economy and adequate resource recovery.

The Hon. BEN FRANKLIN: Which goes to Ms Barone's point about the many advantages of it being done as close as possible to where the waste was created.

Ms CHALK: Exactly.

The Hon. SHAYNE MALLARD: The community will accept it.

The Hon. BEN FRANKLIN: Yes, indeed. Just one final question, picking up on a comment that Ms Dawson made about there already being challenges enough in stopping contamination in the yellow bins. What do you do there? What is the strategy? How can that be lessened? I appreciate Mr Bonsey's comments about increased technology, and of course that is clearly something, but what are you doing in terms of other strategies, cultural change and so on?

Ms DAWSON: We have a lot of engagement tactics that we use. But I guess if we had fewer streams, so fewer product materials—I think the problem is that when the original recycling systems were set up with our yellow bins, everything was PET plastic, glass, paper and metals. It was very clear what to do with it. Now everything is made of composite material and multilayers, so it is really confusing. It is actually confusing for us to keep up with how to educate residents. We do not know every material type that comes through. I think this goes back to some of Mr Angel's comments earlier that just because something is recyclable—so you can get your tube of toothpaste and it has got a recycling label on it. But I know that that cannot go in the yellow bin.

The Hon. BEN FRANKLIN: Really?

Ms DAWSON: It cannot go in there. My friends and my peers all say, "Well, it has got a recycling label on it." It can be recycled; it just cannot be recycled through the system that we have in place. I think this is part of the problem. This is where I think the Australian Packaging Covenant Organisation [APCO] has a system called the Packaging Recyclability Evaluation Portal. Again, I think it needs to be stronger regulation, but what they are trying to do is to say, "You cannot produce this packaging type unless you can prove it can be recycled." Just being recyclable is not enough. It has got to be recycled and it has got to be recycled in a system that we as local government can manage and can afford. We have got to be able to afford it.

I cannot stress enough how expensive it is for us to roll out a new collection service, to change collection services, to change bin types and even to change signage on all of the apartments that we have around the city. It takes up to 18 months to get around all of those apartments to change the signage. Up to 50 per cent of our residents leave our local government area every four years. We can spend an enormous amount of time educating all of our residents and four years later they have all left and we have a new lot come in, a new tranche of residents coming in. It is a continual battle to keep up with what is happening in the industry, what is happening at the processing site and also how our residents are engaging with us and the products that they are buying.

Ms BARONE: That is what I was saying. It is a whole system. We are literally saying—we started with glass. Let's learn everything we can about glass and let's try and solve glass. But that is pretty simple because it is

just glass. There are different qualities and there are different colours but it is just all glass. Now we have moved onto plastic.

The Hon. SHAYNE MALLARD: You cannot recycle dinnerware.

Ms BARONE: That is right. There is some you cannot recycle. That is complicated enough. Some you can, some you cannot and some we can use in our road resheeting. But when we moved onto plastic, it was like—oh my goodness. You have to literally interrogate every single product that we have and work out what it should be made of, should you be allowed to have it at all and, if you can have it, where does it go? If you cannot answer that question—that is where I started—then you should ban that.

Ms DAWSON: The other thing in the submission that we wrote is that plastic is not just about beverage containers and food ware; it is also about the plastic in our textiles and e-waste. E-waste is a huge problem for councils that is not serviced by industry. We talked about how industry is coping. They are only really interested in the things that are covered by the product stewardship scheme, which is televisions and computers. If you think about everything that you have that is electronic or electric that is not a television or computer, it is huge. They are predominantly made of plastic. So when we think about the plastics problem, I do not think we can think about it just in consumer packaging. It has got to also consider textiles and e-waste.

The Hon. MARK BUTTIGIEG: I did raise this point with the witnesses this morning. Everything I heard this morning keeps pointing back to this diabolical problem where because we are taking a regulatory approach, it implies that you have to somehow work out when people are doing the wrong thing. If it originates from a source compound, if you like, plastic—whatever limited range of polymers there are that the source product starts with—then it goes out into the world and becomes multiplied thousandfold is what you are saying, it is almost impossible to monitor it and to deal with it and it is very expensive. We seem to be spending all this energy and time and resource into how we deal with that, which is essentially what a regulatory approach would engender.

Would it not be easier to have a market-based solution where you tax it at its source, it becomes economically unviable for the manufacturer to produce it and the market sorts it out. I just cannot believe that these sort of things are not being discussed. Or if they are, where are they being discussed? I understand at a council level you do not necessarily have the ability to deal with that because you are not at that sort of level where you are producing it, but have any of these market-based solutions been considered? It seems to me that you can regulate all you want, but then you have got to monitor it and somehow deal with it to comply with the regulation, which is going to cost organisations like yours thousands if not millions of dollars in the future.

Ms BARONE: I would simply answer that by saying that this is one of these wicked problems and all ideas should be considered. I think that in some instances for some issues, that might be the right one, and in some instances I guess that product stewardship is along those lines where you have got to take responsibility and in some instances it is about just not allowing some things and in some instances it is about investing in the right technology that enables you to process it. I think everything has got to be in the toolkit, but at the moment there is no clarity. You cannot have a toolkit until you decide what you want to achieve and what the thresholds are for this State—exactly what do we and do we not accept.

Mr BONSEY: I might also add that taking an incremental approach to a massive problem could be beneficial. For example, looking at the most problematic single-use plastics like the lightweight as well as the heavier gauge plastic bags, polystyrene, even PVC. Industry has a lot of trouble with getting PVC. Even though it is technically recyclable, it is easily confused at the separation with other materials and it is difficult to manage. Getting those out of the waste stream I think is absolutely fundamental and it is going to have to happen. We may not be able to solve the whole issue right away with one piece of legislation. As we mentioned with the POEO Act there are lots of things that kind of play together as well as the 20-year waste strategy and identifying where the real opportunities are based on material flows and infrastructure gaps and so forth that we can be investing our contestable and non-contestable funding from the waste levy. I would definitely encourage the Committee to consider what the low-hanging fruit are that I think are largely engendered by this bill.

The CHAIR: I might just jump in with one last question and this is directed to all witnesses. I understand some of the targets in the bill may be a bit ambitious, particularly now that we have an inquiry and it will all be dragged out a little bit. Are there any particular obstacles to realising the intention of the bill other than what we have seen with industry saying that it cannot do some of it? We had the Boomerang Alliance here earlier who said that industry is starting to look at the fact that various States have legislated for phasing out various plastics. It is happening internationally. Are there specific blockages in any channel as a result? You are working with recycling and you can see the biggest barriers in New South Wales to achieving what is in this bill.

Ms SLOAN: I think there are a couple of major barriers with the definition of "waste", which I have mentioned already, but also the regulatory environment, which is very time consuming for industry to find its way through. It is not very transparent. It is very unclear when you are going through an approval process for a new process of some sort. It is very unclear what it is exactly that you have to do. The time frames are largely unknown. There is a lot of uncertainty around the regulatory processes of resource order and exemption, which makes it very difficult to introduce new technologies and makes it very challenging for a smaller firm. A lot of the new technologies come with a smaller firm that does not have the weight of one of the major global firms behind it to risk an investment in something that is so unclear. I think there is a lot to be done around the regulatory side of things.

Mr BONSEY: I think another barrier is the fact that so many of our products are imported. We do not have a lot of onshore manufacturing. That means that there will need to be some level of regulation for imported packaging to make sure that they are working towards our standards. Seeing right now the low recycling rate of plastics—as Mr Angel said, 10 per cent to 13 per cent, something like that. To get from there to 90 per cent is going to be a pretty big leap in a short period of time. Even the national packaging targets, which are supposed to be met by 2025, are very unlikely to be met at the moment without a major shift. But I think imports is definitely an area to look at.

The CHAIR: One last question from me in relation to data. Quite a few submissions have mentioned the fact that there is not too much transparency around data. Would any of you like to comment on that? If these targets are to be met in any legislation, there has to be a big improvement in the way in which data around collection and processing and everything is released or published.

Ms CHALK: The way we collect our data is by auditing. It is the best way we have. We audit all the bins and it is a very expensive action. The best way to do it is seasonally so that you know exactly what is going on throughout the year and to inform your education programs. I can honestly say that the knowledge of what is in the bin gives us the best level of input to our education programs to make sure that our contamination levels stay in our contractual requirements. There was a question previously about the recycling bin. I am fully aware that the recycling bins in Penrith currently sit at 15 per cent. They fluctuate throughout the year and if they are going to go above in a couple of years' time, we will pay a very heavy penalty for that.

The CHAIR: When you say they sit at 15 per cent, what do you mean by that?

Ms CHALK: Contamination in the yellow recycling bin is considered to be anything that our contractor VISY cannot process.

The Hon. BEN FRANKLIN: And that is 15 per cent.

Ms CHALK: Yes. That sits at 15 per cent.

Ms BARONE: My understanding is—and correct me if I am wrong. When I first started chairing this committee I asked for the data please and I was given a spreadsheet of who collects the data at Commonwealth, State and what is collected locally. Every level of government has some responsibility, and there were actually years missing. There were years missing where levels of government had not collected the data. We might know what is going in and out of the bin, but we cannot necessarily tell you that what we think is going from the bin then there and there is actually happening.

The CHAIR: That is right.

Ms BARONE: Either because of lack of data collection, inconsistent ways of collecting data or just people not doing the right thing, we do not really know and cannot really tell you. In some places we can tell you exactly how many trucks might be going to a landfill and what they are dropping and in other places we might not be able to know that at all. We do not know; I do not think any of us know. Then of course the different companies will say, "It is commercial in confidence, so we are not going to share it because we do not want our competitor to know." How can you tackle a problem if you do not know what the problem is? Data is absolutely essential and it has got to be reformed.

Ms DAWSON: There is an issue with data from transfer—as soon as our waste enters the transfer station, that transfer station can accept commercial waste, it can accept municipal waste predominantly, and so as soon as it goes in there we lose all oversight over it. We know the facility that our waste ends up at, but we have no idea of what is happening downstream, so even with a major waste contractor for the recyclables we ask for downstream information and we are provided with a suite of—it is, essentially, just a one-page flowchart that says it could go to any one of these places. There is no method, really, of tracking where our waste is going to and if it is being managed responsibly.

Ms BARONE: The citizen might be dutifully doing the right thing in accordance with our waste education, but we cannot confidently tell them that what is happening at the end of the stream is actually happening. Thankfully, it is not going to be going overseas anymore because we are looking at things like what we can do with textiles but we could not find any system where we could actually get confidence that they were going to do what they told us they were going to do.

Mr BONSEY: Do I have time for one fast comment?

The CHAIR: We are running out of time but very quickly, yes.

Mr BONSEY: I just wanted to share a practical example. With government-led procurement, for example, we are trying to understand the material flows so that we are not creating perverse outcomes. We have been working with the Department Planning, Industry and Environment closely on a regional material flow analysis linked to infrastructure gap planning to understand what is happening there. But the POEO Act actually prevents the department or the EPA from sharing any facility-level data. We are actually prevented by law from understanding what is happening downstream with these materials, so we do not have full transparency over whether we are making the right decisions to drive end markets for certain materials. I believe the 20-Year Waste Strategy is looking at a waste data management system of some variety. There is a real opportunity to make sure that all necessary stakeholders within the supply chain have an opportunity to maybe even see that on an aggregated level so that we are all working on the same page.

The CHAIR: Thank you very much. That is actually very interesting for a potential recommendation as well, I might say. Thank you for appearing today.

(The witnesses withdrew.)

(Short adjournment)

KARINNE TAYLOR, Principal Environmental Consultant, MRA Consulting Group, affirmed and examined

[Audio malfunction from 11:31:26 to 11:33:44]

Ms TAYLOR: In the case of government you have a number of policy levers at your disposal, one of which is regulating products and materials, the subject of the proposed bill. Our company has been analysing the economics of recycling for over 10 years, and we have found that the solution for single-use plastics is not an industry-wide collection and recycling program or a council-wide one. Collecting these items for recycling is ridiculously expensive and generally a waste of money compared to other material streams such as organics, paper and metals. One trial by the packaging industry found that collecting and recycling plastic bags through supermarkets can cost $4,500 per tonne collected, which compares to an average cost of $40 per tonne for kerbside recycling. MRA thinks that the sort of materials listed in the bill are appropriate, but the timing is highly ambitious and there are some implications for total environmental impact that should be considered.

It is highly ambitious because we do not currently have the supply chain and infrastructure in place to manage the transition to recycled or compostable packaging even where this is technically feasible. Unless planning time lines are reduced, it is highly unlikely that New South Wales will be able to capture and process the volume of plastics currently in the market. This is also true for compostable packaging. Food-grade recycled content soft plastic is only now being demonstrated as feasible, which affects your recycled content target. With the recent announcement in March of the trial first food-grade soft plastic wrapping by Nestlé, the industry is more hopeful it can deliver on industry targets but, again, this still needs to be implemented at scale, including the creation of logistics pathways and infrastructure to process the material.

In terms of total environmental impact, one item in particular, plastic fruit and vegetable packaging, needs a more nuanced response than a simple ban, and we encourage this item to be on the terms of reference for the Plastics Reduction Commission rather than in the legislation itself. The use of plastics for some fruits and vegetables substantially increases the shelf life of those items, which reduces food waste overall in the entire supply chain. MRA considers that in terms of overall environmental impact food waste is a bigger issue than single-use plastic waste, although they are both issues of concern. Food waste has a higher carbon footprint. Its production also contributes to soil reduction if the land is not managed properly and impacts on waterways through use of fertilisers. The correct use of packaging can substantially reduce this impact, so we encourage a whole-of-lifecycle approach to the consideration of packaging waste, taking into account the contents of the packaging and impacts associated with the production and disposal of those contents, and the ability for the packaging to be captured in a closed-loop supply chain, which will address the issues this bill is trying to cover.

In relation to point two, we would encourage, in addition to banning items that clearly do not have a greater utility for the community or in reducing overall environmental impact, that the proposed Plastics Reduction Commission develop design criteria on plastics entering the economy. Many of the issues surrounding our inability to recycle or otherwise recover plastics are due to poor design for recyclability, such as composite materials. For example, a bread bag that is both paper with a plastic see-through window is problematic for recovery in a recycling supply chain and should be phased out. In closing, it is good that for the first time in the history of the Federation governments have agreed to national targets to address our waste issues. This bill could bring New South Wales in line with the efforts of other States, ensuring policy alignment and driving consistent outcomes. The bigger issue we see is how New South Wales is going to meet the national targets, however, and this piece of legislation is a small piece of that puzzle, targeting the reduction per capita goal—one of the more difficult national waste plan targets.

The other question—and we think it is bigger than single-use plastics—is how to achieve the required 80 per cent diversion by 2030 when current average diversion is 56 per cent across Australia and in New South Wales an average of 42 per cent for households, 56 per cent for commercial and industrial, and 76 per cent for construction and demolition. MRA estimates that we need to grow our recycling efforts and capacity by 8 million tonnes across Australia in the next nine years to achieve the target, which is more than double the historic rate of growth in recycling. To achieve this in New South Wales would require an estimated $10 billion in new recycling collection and processing infrastructure. So, as well as legislation like this that tackles the creation of waste in the first place, thus impacting one side of the equation for the 80 per cent target, we also look forward to the forthcoming New South Wales 20-Year Waste Strategy's role in solving the wicked policy problem of waste management and the transition to a circular economy.

The CHAIR: Thank you very much. I will kick off by asking a few questions to begin with. Your submission states:

Plastics management is complicated, with diffuse pollution points spread throughout the community, and technical materials science and manufacturing expertise required to enable recycling solutions.

Ms TAYLOR: Yes.

The CHAIR: Could you expand on that a little bit more, particularly in relation to how the bill can address that?

Ms TAYLOR: Sure. I always think about pollution as being either point source, as in you can find it, you can identify it, you can regulate it and you can stop it, or diffuse, where it is very difficult to establish where it is coming from and there are many, many, many points. And it is very difficult to regulate diffuse points of pollution. You have got lots of actors being involved. Essentially, plastic, once it enters the consumer supply chain, is that problem. It comes through households, it comes through commercial buildings, it comes through our workplaces, it comes through public place and also out in park lands and things like that. Pulling all of those diffuse sources together and trying to regulate them once they are already in the supply chain is much more difficult than saying, "This thing should not be in the supply chain in the first place." That is what I mean by diffuse points of pollution. Sorry, what was the second half of your question?

The CHAIR: Essentially, the complexities of—you called it complicated. How can the bill—and you have seen the points and targets in the bill. Is there a way that we can make amendments or improve the bill to deal more with the complication of plastics?

Ms TAYLOR: I think it is around the suggestion we have that where it is not designed to actually be recycled in the current system or as something that is commercially feasible in the next time frame, it should just not be allowed to enter the market. The issue we have got—I know the previous speaker spoke about it, but we spend a lot of time talking to recycling companies—is that once it enters the waste stream, identifying a specific type of plastic is very, very difficult. There are things you can do for polyethylene terephthalate [PET] and high-density polyethylene [HDPE] that are easy to pull off. Soft plastics virtually—short of a large amount of investment in very highly technical, complicated, lab-level analysis, you really cannot work out which piece of plastic goes where, which then has issues for taking it back and turning it back into material that can be used in the supply chain.

In saying that, some of the more problematic ones are things that have been listed in your elimination target date, so it is either—those elimination targets are correct. As we said, if there is no utility for the community that is really important, then take them out. But the next one is supporting those design guidelines or supporting design regulation which says that if it cannot be meaningfully recycled with current technology or stuff that is tested and on the horizon, then it should not be entering our market. Does that help?

The CHAIR: Yes. I suppose one of the things we need to be careful about during this inquiry is that if it is so complicated that we cannot legislate for it, then that is not a great outcome.

Ms TAYLOR: Correct.

The CHAIR: What are some of the simplest things, therefore, that the New South Wales Government could be doing in legislation now to support the reduction and phasing out of single-use plastics? I use the word "phasing out" recognising that people are saying, "Not a complete ban," sometimes. What are the easy things that they could be doing now?

Ms TAYLOR: There is the work of the Australian Packaging Covenant Organisation [APCO] around standards, labelling and identifying. I actually quite like where the Australian Packaging Covenant has gone in recent years of working with brand owners, who design the packaging, to really actually make sure it is designed for recyclability. The New South Wales Government supporting some way, through some legislative or regulatory outcome, that says, "This is a national standard and we will enshrine the national standard in how New South Wales manages the creation and allowance of packaging onto commercial shelves"—that could be a thing. There is already a harmonisation across Australia to do that. You have got the plastic bag bans happening in other States. That is a harmonisation issue that can happen here, although I am sure Jeff Angel—I missed his presentation this morning—would have brought up that it just knocks it onto a different sort of plastic bag.

The CHAIR: Yes.

Ms TAYLOR: And then you have the smaller takeaway producers, so how would you regulate that? I remember someone talking about regulation. You can ban something but then you have to regulate it. For me, those are the sorts of areas you can go into. So, yes—those design things, harmonising it with APCO. The Australian Council of Recyclers—again, it was mentioned this morning—have standards for, "This can come back through our supply chain." The other problem that we have when you are tackling the waste generation issue

is that if something can come back through and can be recovered and can be sorted, then you have the market issue itself. The market suppliers need it to be a particular quality, and a guaranteed particular quality, for them to get the contracts up and running. Again, if you are allowing an assortment of types of plastic that cannot be identified in there, then this market is not going to be secure enough to set up the closed loop circular economy supply chains that might help solve this problem.

The CHAIR: What about the tracking of plastics? Is it possible to track particular types of plastics that are produced by a company somehow that end up in a waste stream?

Ms TAYLOR: Is it possible? It is not possible to target track. Say, if this was a plastic cup, it is not possible to track this plastic cup from production to the next company where it would be chipped and turned back into new plastic, but it is possible to talk about what supply chain it has ended up in. I can buy it and then you can—sorry, let me back up. Let's draw a supply chain in our head. I do a lot of work in product stewardship as well. The producer can say, "We have put this much of this particular product and plastic type onto the market," so you can collect data at that point. The retailers can talk about where those products overall have gone to: "We have sold this much product." You can start building a Sankey diagram. If you have councils like Tracy Chalk at Penrith council doing waste audits, they can start to give us a decent sense of where it is flowing at that point.

Some of the commercial property owners—my previous work was doing work with commercial property owners and the operational waste they have every day in their building. Again, if they are doing audits, you can pull the data from that point, so you can have those data points. The waste collection companies will be able to do audits as well and tell you how much is going over a weighbridge. The weighbridge data is an incredibly robust point of data, but the slice of what goes out through a weighbridge is less so; that is why you need audits to check what is going on. Their sales data is quite good. They will be able to tell you where they have sold it to; they just will not be able to tell you that that bale of plastic had this plastic cup in it. But they can tell you, "We sold this much plastic," and where it has gone to and probably what has happened. You get a little more difficult once it has gone offshore. Export tracking does make it a bit more difficult to find out where it has gone to.

But if it goes back within Australia—so, the paper supply chain, for instance, where paper is recycled in Australia, is reasonably well understood. It is the same deal for cardboard boxes. Those points of data can be captured. The issue is one of cost. An audit costs a fair amount of money. Basically it is in labour hours, but also in shutting down a plant or the finding of time in a plant to go and do that audit. There is a cost of commercial time there, and then it is willingness to share the data and willingness to share it in a timely fashion. There are issues of willingness to share it from the commercial waste companies—their sales data. They are not very willing to share that, and I can understand why. But, on the other hand, without that data we cannot start building what the supply chain looks like. There are also issues with, say, the NSW Environment Protection Authority [EPA] releasing the data they collect in a timely fashion so it can be used by the community to do decision-making and planning.

The CHAIR: Could you just expand on when you are saying there are issues with the EPA in terms of collecting data? There is a significant gap, you are suggesting, between when they collect it and publish it?

Ms TAYLOR: That is my understanding, unless that has changed in the last year or two. Historically there has been a significant gap between the collection of data and the release of data. Again, it may have changed in the last year or two. When I was back working in the department, it was a risk-averse approach to necessarily releasing the data. They were trying to make sure it was all polished properly before it could be released, rather than trying to get it through in a timely fashion so decisions could be made.

The Hon. BEN FRANKLIN: But you want to make sure the data is accurate, though, right?

Ms TAYLOR: Absolutely. You do want to make sure the data is accurate. I absolutely agree with that, but there is a trade—

The Hon. BEN FRANKLIN: No, no. I totally get the balance.

Ms TAYLOR: Yes.

The CHAIR: I just wanted to ask your view on—a couple of the submissions have just made mention of the waste-to-energy incinerators that are being proposed, which is the policy around waste-to-energy. Whether, as a consultant or an expert working in the economics of recycling, you have any views as to whether an increasing reliance on burning waste could impact the economic viability of the recycling industry and whether that has any impacts—your view generally on that.

Ms TAYLOR: We have team members who are incredibly experienced in energy from waste in this space. I am not; it is not my area of expertise. I can take that as a question on notice. I have a very small slide in front of me, so I am just going to quickly read it and tell you what I can tell. Broadly, remembering what my colleagues have to say, it underpins the part of the waste stream that cannot be dealt with. If you look at the waste hierarchy, waste-to-energy is still deemed to be better than landfill. The way that the New South Wales waste-to-energy policy is currently written is that you do need to demonstrate that all items have gone somewhere else first before it can go through. We do modelling for companies that are seeking to set up these plants, to say, "This is the feedstock that you can get." A company might think it is very large and then we go, "Actually, it's a smaller proportion than what you think it is, based on the policy." I am not sure it undermines the economics, but I can get back to you. I think what it does is change the economics of landfill. It does not change the economics of resource recovery.

The CHAIR: I am thinking about some of the opposition to legislated targets like this for recyclable recycling, compostable re-use—all of that. Some of the opposition might be from the waste-to-energy or energy-from-waste sector, who might construct these incinerators in a 20-year time frame or longer. Do you see that as becoming an issue? Surely that will be opposition to a really ambitious plastics phase-out.

Ms TAYLOR: Absolutely. But these companies are doing their due diligence and trying to understand what the policy landscape is like. On top of that is the sense that it has to be that residual fraction coming through. So the extent to which this bill targets that residual fraction coming through, if they have already done their economics and they are in the planning process and it has been approved and they are starting to build, the further down the pipeline that planning process gets in changing the time line of this bill, that is where you will be in conflict. If, on the other hand, this comes through before that planning process hits the time lines, then it will be part of their cost-benefit analysis they will do on whether that facility is the right choice for them or not.

The CHAIR: If everybody has given their recommendations—we have it as ambitious but hopefully achievable—what is the residual waste that you are talking about? If everything else is put in place and we try to design a circular economy—the Government has a circular economy draft discussion paper, I understand—it may be aiming for that sometime in the future. If we do all of that, what is the residual waste that the waste-to-energy incinerators will be relying on?

Ms TAYLOR: I think that the list of items that you have does not actually encompass all the plastic that is out there that could be considered.

The CHAIR: That is right.

Ms TAYLOR: Yes. So there is still that residual coming through. A lot of it is hazardous. If you get into the health sector and actually start getting the health sector to split their waste out properly, you have got the PPE coming through, for instance. I am not sure this bill is targeting PPE as we are currently in the COVID response, so that stuff will still be residual. In our submission, talking about food packaging and making sure that it takes into account the whole of lifecycle of the contents of the packaging and not just the packaging—arguably, some of that would still be there. That needs to come through. The councils previously talked about residents still misunderstanding where items should go. There will probably always be a level of contamination through any system, just due to humans and human behaviour and ongoing engagement. So that level of residual will probably still be there for some items that are not captured by this ban. It will not be as large. If this legislation goes through, obviously, it will not be as large a fraction as waste companies are currently expecting to be there. But they are also watching the writing on the wall and seeing this coming through internationally and in other States. So they will be making those risk choices in their cost-benefit decisions.

The CHAIR: This is an inquiry into the bill. So that list of plastics is open for consultation and feedback, addition and reduction, or whatever. Do you have any specific comments in relation to the list that is in the bill itself?

Ms TAYLOR: Simply the following: the plastic fruit and vegetable packaging that I referenced before. There are life cycle assessment analyses going back a decade or more, demonstrating that some plastic on some fruit and vegetables actually increases the shelf life of those fruits and vegetables, which means that you need to produce less food overall and there is less waste going out the back dock of supermarkets. Theoretically, if the entire compost supply chain was set up, then maybe you could argue that that is a closed loop and so that is less of an impact. But then you have still got all of the energy inputs to every single piece of food that we produce. So I think we are suggesting a more nuanced response there.

The only other one is transitioning these materials. Many of these materials, particularly towards the end of your list, have a utility to the community. If we are not going to use plastic for those items, what options does

the community have, to have a similar utility in a non-plastic form? Prior to plastics, it would have been use of paper, use of the straw baskets. I am a social historian as well. In South-East Asia you are looking at banana leaves. What is the replacement there? How quickly can you phase that in from a social perspective? It is our only sort of other commentary around what is going on here.

The Hon. BEN FRANKLIN: Now that we have introduced the international aspect, I was interested in whether you could give us some elaboration on similarly sized countries with a similar economy—basically, similar nations and what they are doing in this space which potentially we can be learning from as well. Is there anything you want to talk about?

Ms TAYLOR: My knowledge is not detailed enough to give that to the Committee. My knowledge would be based on Europe. Europe has a very different situation to what we have. They have a much denser population and much less transport miles than we have. If I was going to go looking, I would go looking at Canada. But I am not—

The Hon. BEN FRANKLIN: The tyranny of distance is such a big deal.

Ms TAYLOR: The tyranny of distance is such a problem here. It is why we find it is just not economic. Anytime we do the modelling for a company or an industry to try to collect back their products, ultimately it is, "How far do you think this thing will need to be transported?" which is the difference between "It will cost you money" versus "It won't cost you money." It is the tyranny of distance and the tyranny of collection as well. Within metropolitan centres, it is more economic to collect. The minute you start spreading into regional and rural areas of Australia, it is much more difficult to collect and the costs go through the roof. Our argument, especially from our managing director, is if it was already economic to recover and recycle this item, we would have already been doing it. We have a cost curve that we display and those items that I mentioned at the beginning of my presentation. Basically, the cost curve is: if it costs less than the landfill levy to recover, then it is economic. If it costs more than the landfill levy to recover, it is probably not economic and people are going to throw it in a hole in the ground. So the landfill levy that we have in New South Wales and in every State and Territory does actually drive the economics of resource recovery across the country.

The Hon. SHAYNE MALLARD: Thank you for your brief submission and your expertise. In your submission, you say to us:

> The highest priority for waste management in NSW should be organic waste going to landfill. Organic waste includes food, garden waste, timber, pallets, paper and cardboard … and represents over 50% of all waste we landfill …

That is alarming. We are focused on plastics here. It is a very trendy area to be looking at because of its impact on the oceans and so forth. Are we misdirecting our energy from the real problem, which is what you have identified here?

Ms TAYLOR: I do not think you are—

The CHAIR: Good try, Shane.

The Hon. SHAYNE MALLARD: As Mark Latham said, we have a koala inquiry, not a wombat inquiry. We are having an inquiry into plastic and not into the more difficult issue of the organic green waste.

The CHAIR: At least we are having an inquiry into plastics. Sorry, go ahead, Ms Taylor.

Ms TAYLOR: No, you are fine.

The Hon. SHAYNE MALLARD: It is Cate's bill. So she will try to shepherd it.

Ms TAYLOR: I will do my best to respond. I do not think this is a misdirected inquiry. Our company does not think that.

The Hon. SHAYNE MALLARD: Not the inquiry; the priority.

Ms TAYLOR: Sorry, priority. I do not think this is a misdirected priority. I do not think that, and certainly our company does not think that. Mike Ritchie, who is the owner of the company, and I worked on the submission together. He would be here today, but he has to present in Queensland. He would have enjoyed presenting. Plastics are a problem. They are a new material, brought in as part of the industrial era, which we are producing at scale. We have not really thought about how we are going to deal with the end of life of those plastics. As a society right now, we need to tackle that particular issue. They do escape into the environment. It is an issue.

I always reflect when I have got people colloquially asking me about what I do. Often their first question is, "Should I care about plastic bags?" My response to them is, "Do you care about carbon emissions? Do you care

about total life cycle impact?" or, "Do you care about carbon issues, do you care about drowning turtles, or do you care about evidence of our current society being on the planet in 1,000 years?" The answer is that all of those things are things that we should care about. This bill is looking at the impact it has on waterways and the impact is has on those items still being around in 1,000 years' time, as evidence of our current society.

But we should also be caring about carbon emissions, which is where the organics come in. It should not be an either-or trade-off; it should be both. So a priority for the New South Wales Government should be, "Why do we have organics still going into landfill?" It is an impost. It is a massive carbon emission load. Also, those food nutrients could easily be going into our organics agricultural system. We are a food-producing nation. It is crazy that we stick nutrients in a hole in the ground rather than capturing it and putting it back onto land. So both priorities are important and we are hoping the 20-year Waste Strategy is talking strongly to organics.

The Hon. SHAYNE MALLARD: I see your expertise in that area. We have heard evidence from the City of Sydney before around the issue of the red bins going to a—

Ms TAYLOR: An alternative waste treatment facility.

The Hon. SHAYNE MALLARD: Yes, that is correct. Now they are not doing that because of regulatory change and because too much plastic was contaminating the bio product. Have you got a comment on that?

Ms TAYLOR: I believe that was the right decision by the NSW EPA. There was no evidence that the material being produced by the plant was providing benefit to the soil. There was risk of microplastics being spread across the soil. These are the findings from the EPA that they produced. The plant had a decade or more to try and get itself sorted out. The engineering solutions to tractable material problems are—"appetising" is not the word. It is a nice idea to think that we can engineer-solution our way out of something that is a community behavioural issue and it is also to try and engineer our way out of something which is an externality placed onto the community by producers of material. So there is that trade-off balance where they have sort of said, "We produce something and then the externality is placed onto councils and the community to manage the externality of the thing that we produced".

The Hon. SHAYNE MALLARD: Until the regulatory change in that EPA approach—we had an inquiry into energy from waste and we went to Woodlawn and saw the—what was it called? Ingester.

Ms TAYLOR: Biodigester.

The Hon. SHAYNE MALLARD: Biodigester. That is all stopped now, right?

Ms TAYLOR: I cannot comment.

The Hon. SHAYNE MALLARD: Because that is where the plastics were getting contaminated into the organics, which is being used to rehabilitate mines.

Ms TAYLOR: My understanding was both there and also a facility in Eastern Creek.

The Hon. SHAYNE MALLARD: Yes, that is right.

Ms TAYLOR: But I was not with the company at the time that happened. I was working in commercial industrial waste data at the time. So I am not an expert in any way, shape or form.

The Hon. SHAYNE MALLARD: I think the fellow from the Southern Sydney Regional Organisation of Councils [SSROC] commented on the fact of stranded assets.

Ms TAYLOR: Yes.

The Hon. SHAYNE MALLARD: So they have invested in these assets—Eastern Creek and Woodlawn—and now they are stranded assets trying to re-engineer them.

Ms TAYLOR: Absolutely. One of the issues that the waste industry—sorry, I am going to say the resource recovery industry. There is waste management and it is a very important part of what we do. The resource recovery industry is hesitant to invest in infrastructure because we are not quite sure where the policy is going to go and whether the situation is going to change or not. If this bill proceeds, that provides a level of guarantee that this is how New South Wales will now be operating, so now we can start to make commercial decisions. It is where there are guidelines and recommendations and "maybe we should do this" and "we will think about changing this in the future"—that is where industry has issues. It is when you say that this is how we are doing it from this minute forward or with a phased approach to bringing it in, then they can make the right decisions.

The Hon. SHAYNE MALLARD: That is good evidence. Certainty is across the board.

Ms TAYLOR: The industry has been calling out for certainty for a very long time.

The Hon. SHAYNE MALLARD: It is the same with energy and renewables.

Ms TAYLOR: Absolutely. In fact, one of my roles at one point was energy—there was a market mechanisms question before. One of my roles was about energy market change in New South Wales—

The Hon. SHAYNE MALLARD: And federally.

Ms TAYLOR: And federally. It is similar to the waste industry. I think this is what this bill is trying to propose, that the energy market change is underpinned by regulation at the Federal level that says that this particular product does not meet our standards and cannot enter the country. You are essentially trying to do the same thing here. This particular product does not meet our standards and cannot be sold so therefore we can then address the rest of the system and try and optimise it so we get the circular economy outcomes we are after. You need both of those things. You need market mechanisms but you need the market to be supported with "we will help to make sure that you can make clear decisions because it is more controlled". Government and industry should always work together.

The Hon. SHAYNE MALLARD: I agree with that. Thank you.

The CHAIR: Has MRA Consulting done any work in the potential around jobs and investment with a circular economy? The more we move to a circular economy the more recycling businesses we have and all of that. I am assuming you have done a fair bit of work there.

Ms TAYLOR: We can do that for clients if they ask us to do that. We generally reference—and it is out of date—a 2009 study as the best reference anybody in this country has for how many jobs are created by landfill versus resource recovery and then moving onto the circular economy. That is what we would reference and we will do that work for clients if they ask.

The CHAIR: Do you have those figures or could you provide them on notice in terms of that 2009 study?

Ms TAYLOR: Yes, I can absolutely provide those on notice.

The CHAIR: I am assuming the benefits are there.

Ms TAYLOR: Totally. There are—actually, I will not say the numbers because I do not know them but I can provide those; they are definitely public record. I think one of the actual recommendations you could have from this is that there is an organisation called NSW Circular, who are doing the economics of the circular economy. They are funded by the New South Wales Government so they are an independent organisation, but funded by the New South Wales Government to deliver circular economy economics analysis. They may have a remit to try and identify the benefits of a circular economy in New South Wales, including what would the job situation look like compared to just landfilling something, resource recovery and other sorts of circular economy initiatives. I suspect that that data would benefit so many people in making decisions in this space.

The CHAIR: Interesting. Thank you. We will look into that. I will just check whether Penny or Catherine have any questions from the world of cyberspace that they are tuning in from.

The Hon. PENNY SHARPE: No, I am good. You have covered everything that I had so that is fine.

The Hon. CATHERINE CUSACK: I am also good.

The CHAIR: Thank you, Ms Taylor. That is the end of our questions for you. I think you may have taken one question on notice so the Committee secretariat will get in touch with you about that. I believe you have 21 days to respond to that. Thank you very much for your work over many years in this space and thank you for appearing today.

(The witness withdrew.)

(Luncheon adjournment)

KATE NOBLE, No Plastics in Nature Policy Manager, WWF Australia, before the Committee via videoconference, affirmed and examined

SHANE CUCOW, Plastics Spokesperson, Australian Marine Conservation Society, before the Committee via videoconference, affirmed and examined

The CHAIR: Welcome. We will now begin our next session. Do either of you have a short opening statement you would like to make? I will go to Ms Noble first.

Ms NOBLE: Sure. It will come as no surprise to anyone in this room that we really are facing a mounting plastic pollution crisis both here and around the world. Without decisive action on a range of plastics and single-use plastics in particular, this crisis is set to worsen exponentially as plastic consumption increases and continues to leak into the environment, where it causes significant damage. Our focus at WWF Australia is eliminating the leakage of plastic into nature, which speaks directly to the purpose of this bill. This goal will require, however, a monumental collaboration between publics and governments at all levels from local government through to States and Territories, national governments and, critically, also coordinated international action on plastics.

The scale of the problem can be pretty difficult to comprehend. Recent research commissioned by WWF Australia estimates that of the 3.4 million tonnes of plastics used annually, around 130,000 tonnes leaks into the environment every year. Around 1 million tonnes of our annual plastic consumption is single-use plastics and of this around 110,000 leak into the environment. Much of this ends up in the ocean, where it can cause injury, illness and even death to marine life. While community and environmental groups have worked tirelessly to clean up this mess, it is clear that reducing plastic pollution at the source is absolutely critical to tackling this problem.

The great news is that over the past few years we have seen some significant action at State, Territory and Federal level in Australia towards phasing out the use of unnecessary and problematic single-use plastics and moving towards a circular economy that keeps plastics in the economy and out of the environment. These instruments are a really important component of the broad strategy we need to be taking to reduce plastic pollution. But, as we know, New South Wales has not been leading the pack on this and neither has Victoria. Given that these are two of our most populous States, this is a significant problem. WWF assesses the performance of all States and Territories on single-use plastics and New South Wales has consistently been underperforming on that assessment. It is really time for that to change.

It is really promising that the action we are seeing from States and Territories on this issue crosses party lines. We have seen some great policies coming out of Liberal-Nationals parties, Labor and The Greens, both in Government and in Opposition. They have introduced really strong policies and these have had enormous levels of public support. While New South Wales' plastics plan has been a long time coming, we believe this bill contributes a significant level of thinking and planning towards this whole process and, regardless of the outcome of this inquiry, we strongly urge some of the provisions of this bill to remain on the table as New South Wales' strategy is developed and implemented over the coming years.

The CHAIR: Thank you very much, Ms Noble. Mr Cucow, do you also have an opening statement to make?

Mr CUCOW: Sure thing. The Australian Marine Conservation Society, also known as AMCS, is Australia's only national charity dedicated solely to protecting ocean wildlife. Just for context, we are founded on a community of ocean lovers that spans the nation and we are staffed by scientists, educators and policy experts who have been advocating for evidence-based solutions for over 50 years now. Australians treasure our beautiful beaches and iconic marine life, but we know that plastic pollution is turning those once pristine waters into a toxic and lethal environment for iconic turtles, dolphins, whales, seabirds and other wildlife. These plastics are killing ocean wildlife. We know that our beaches and waterways are filling up with plastic packaging, straws, bottle caps, plastic bags, plastics such as these. What we know is the air-breathing mammals often become entangled in things like balloon strings or soft plastics like bags and, unable to reach the surface, they face suffocation or they can face brutal injuries if they remain entangled throughout their growth periods into adulthood.

We also know that many ocean animals such as turtles and seabirds mistake plastic pieces for food and are killed by internal injuries or life-threatening blockages that develop in their stomachs. Specifically, research into the lethality of plastics found that plastic bags, utensils, balloons, cigarette butts, bottle caps, food packaging, expanded polystyrene packaging, straws and take-out containers to be among some of the most lethal plastics for ocean wildlife. The source for that is a study by Wilcox et al in 2015. Just this year we have already seen shocking

reports that baby turtle hatchlings washing up on Australian beaches are sick and dying with their stomachs full of plastic. They had only hatched weeks earlier.

We know that this is an immense crisis. It is already out of control. Best available research indicates there is already over 150 million tonnes of plastics in the oceans and there will be more plastic than fish in our oceans by 2050 unless action is taken today. The evidence is all around us. We know that Australian Microplastic Assessment Project volunteers at Manly Cove found 11.87 kilograms of plastic debris during a collection in February. CSIRO research indicates millions of seabirds are dying from ingesting plastic pollution each year and over 100,000 marine animals as well. Australians have been doing their part, recycling and picking up trash believing that it will all get recycled. But according to Australian Packaging Covenant Organisation [APCO] data only 18 per cent of plastic packaging is currently recovered in this country. We know that recycling is just a bandaid solution and it is not proven to be a particularly effective one for the infrastructure that we currently have.

Once plastic enters the ocean we know that it is virtually impossible to recover it. The most effective way to stop plastic is to stop it at the source. With safer, non-toxic and friendly alternatives available for many of the single-use plastics cited in this legislation it is time for us to accelerate that transition to safer alternatives. Voluntary measures are not sufficient to meet the scale of the problem. Regulation is needed to create the pace of change that we need to meet this crisis head on. We know, as Ms Noble and others have said, bans of single-use plastics have proven to be effective around the globe and popular, with South Australia, Queensland and the Australian Capital Territory passing laws, and Victoria and Western Australia committing to do the same. The great thing is that these have had support from all political parties. I was present at the passage of the laws in Queensland just recently and they were unanimously supported by every MP in the Chamber from every political party. Yet, despite having the largest population density in Australia and the largest plastic footprint, we know that New South Wales is at the back of the pack, with no ban on single-use plastic bags and no laws to regulate the sale of unnecessary and lethal single-use plastics such as the ones we have cited.

To finish, we know that the Australian public supports these measures. In the Queensland Government consultation, for example, of 20,000 respondents, 94 per cent supported a ban on single-use plastics. They have been welcomed by ocean lovers, by businesses and the recycling industry, who all agree that Australia must act to stem the flow of plastic into the environment. On behalf of Australia's ocean lovers and our iconic wildlife, who cannot speak for themselves, we support this bill and its intent.

The CHAIR: Thank you both for your opening statements. We have some members who are attending via Webex and the remainder are here in the Macquarie Room in Parliament. The Committee has heard a number of comments, and the facts speak for themselves, that New South Wales is a bit behind the pack of other Australian States and Territories. Would either of you care to comment about why you think that is the case, recognising that different parties, both Liberal and Labor, with sometimes a Labor-Green alliance, have all acted? Is there something particular in New South Wales as to why we have not progressed as far at this time? Ms Noble, do you have anything to say? It is fine if you do not.

Ms NOBLE: I think it is useful to put a bit of national context around it. Most of these instruments have been introduced pretty recently. You go back five years and we were facing quite a different scenario in terms of single-use plastics bans and legislation around the country. This is all very much a moving feast and Victoria obviously has a policy in place but are yet to introduce legislation. Aside from South Australia, which has an historic record of doing incredibly well on environmental issues in relation to plastic pollution and prevention, this is all quite recent. Definitely New South Wales is notably lagging on this but it is not as if there has been a five-year time lag here. It is really the last couple of years that a lot of this has ramped up.

The CHAIR: Thank you. Mr Cucow, it does not look like you have anything to add to that. You will make noises if you do. The Committee has heard evidence this morning about the importance of ensuring that the draft bill sets targets for packaging to be, say, compostable or recycled. It is important to make sure that companies are not able to continue to greenwash products by saying that they are biodegradable, when in fact they are potentially not. That is happening a fair bit at the moment, is it not?

Mr CUCOW: Sure, I can speak a little to that. One of the measures that is included in this and included in the laws passed in the other jurisdictions is an inclusion of oxo-degradable plastics in the list of prohibited products. We fully support that, because we are facing a circumstance at the moment where we are seeing a lot of biodegradable so-called plastics on the market. We are seeing them touted as an alternative to plastics, but unfortunately because they are just plastics with chemical additives that help them to break down more quickly, they persist as microplastics in the environment. In fact it makes it easy for things like marine wildlife, for example, to be ingesting those plastics. They are also virtually impossible to recycle, yet people throw them into recycling bins thinking that they are going to get recycled. It is really causing a lot more problems than is helpful.

We are certainly pushing for any compostable plastics that exist to meet the Australian composting standards, which I am sure you will have already heard today are better than other places around the world, and for good reason we should be enforcing those.

I would also say that a big part of the challenge as we implement bans on single-use plastics and people move towards compostable alternatives, is access to industrial composting infrastructure. We know that many councils, in fact, most councils around Australia do not have industrial composting facilities and the collection mechanisms required to get these kinds of compostable plastics into them. So people are throwing them in their home compost or into their landfill bins, which is happening quite frequently. That is not ending up breaking down in the way that we need it to. It is a tenacious problem and we have to act to stop this greenwashing by enforcing the composting standards that we allow to be used in labelling in Australia.

Ms NOBLE: I echo and agree with Mr Cucow's points and add that labelling is obviously critical. Targets are really important and it is good to see some of these included in the bill. We support mandatory targets because on the balance of evidence we have seen that voluntary targets just are not achieving what we need them to achieve. This just really goes back to and underlines the importance of a coordinated effort at all levels of government because these problems sit out and can be tackled through different mechanisms at all levels of government.

The CHAIR: Thank you. We have products at the moment with packaging that claims it is biodegradable. People are disposing of them potentially in a way that is biodegradable, yet these supposed products are not biodegrading; they are breaking down into smaller pieces of plastic. That suggests we should also be targeting those materials, or at least the instructions on them, to place a ban on those products. It almost sounds like it is worse than other plastics. Is that correct, Mr Cucow?

Mr CUCOW: Certainly in the regard that these plastics often cannot be recycled, I would say that in some cases they are worse than your standard plastic. I would agree with that assessment. What we would be asking for is regulation to ensure that any plastics marketed as compostable, which is better than biodegradable, must meet those Australian composting standards. Otherwise they truly are just not going to get into the facilities that they need to be able to break down properly. It is essentially false marketing; I would consider it.

The Hon. MARK PEARSON: Mr Cucow, could you just explain the different types of plastic impacts on marine life? We have the gross plastic that is probably thrown overboard from boats and is a consequence of large-scale fishing. My understanding, from what I can read, is that there is also plastics that we cannot see, which are just building up. Can you explain how they affect marine life over a period of time?

Mr CUCOW: I can give a little bit. Unfortunately for some of this we actually do not have the data available yet. We know that plastic is hurting ocean wildlife in terms of entanglement. I described a little bit about that in my opening statement. So things such as balloon strings and other pliable plastics can wrap around wildlife and cause injuries or prevent them from getting to the surface, and that can be one of the most lethal ways in which plastics hurt wildlife. We also know that ingestion is a significant problem. Sometimes eating those sharp smaller pieces, whether it is broken down plastic containers or bottle caps et cetera, can cause painful internal injuries and lead to death. We know that a turtle, for example, faces a 22 per cent chance of dying from eating just one piece of plastic.

We already know that over half of all seabirds have plastic in their stomachs already. It is pretty shocking. In terms of these micro plastics, when it really breaks down to that small particle level, we do not know the full impact it is having on wildlife. We are seeing emerging evidence that is affecting hormone levels within wildlife. We are seeing emerging evidence that it creates a greater likelihood of disease potentially associated with the chemicals that are used to produce these plastics or chemicals that attach on to these micro plastics when they are already out in the ocean. These are some of the ways in which we are seeing those impacts exhibiting in marine wildlife.

The Hon. MARK PEARSON: Is there any evidence yet that the plastics, particularly the microplastics, are actually contributing to a disease or if the animal is diseased contributing to it worsening?

Mr CUCOW: We have seen evidence so far of correlation, but I could not give you evidence of causation at this point. It is still a very emerging area of research. We also do not know the impact of these plastics on human health and we do know that microplastics are starting to show up in studies of humans as well.

The Hon. BEN FRANKLIN: As a direct follow-up to Mr Pearson's question, do you think there is enough focus on the infrastructure itself that keeps plastic out of the waterways? If not, what else can be done in

order to achieve that? Obviously you are not going to be able to keep everything out, I understand that. My question is: Is enough being done and if not what else can be done reasonably?

Mr CUCOW: Certainly we know that councils are doing very hard work trying to keep plastics from entering the ocean through stormwater and other such ways and that is having an impact. However, I have not been able to find access to good quality data on what the most effective measures are. I think there is definitely room for greater investment in research and infrastructure in that regard. However, there are just a lot of other areas in which plastic enters the waterways that are very difficult to control. This can be from plastic just blowing down the street and into the ocean, plastic that is littered at beaches et cetera, plastic that blows off landfill or that falls off ships and shipping containers et cetera when we have been shipping this waste to other countries. There is a whole host of ways in which plastic enters the environment. We do believe that the most effective thing that we can be doing is actually shifting away from using these plastics in the first place. With only 18 per cent of that being collected for recycling, we know that we are producing far more plastic than we have the infrastructure to be able to recover and remanufacture.

The Hon. BEN FRANKLIN: I totally get that. I was looking at the other side as well to see if we can assist in that.

The CHAIR: I will just jump in with a question to Ms Noble in relation to WWF's submission. The submission states that, firstly, in relation to the scorecards that you do, the 2020 scorecard assessed New South Wales as catching up to Queensland, the ACT and South Australia. Your assessment identified no action from the Government on plastic packaging and single-use coffee cups and lids, and limited action on a range of other single-use plastic products. However, you have then stated that in your last scorecard published that substantial progress has been made by New South Wales. Could you expand upon what that substantial progress by New South Wales is?

Ms NOBLE: This whole process of developing this plastics scorecard is reasonably challenging given that we needed to look at a range of commitments and the time lines behind those and the mechanisms behind those as well. We looked at a range of types of single-use plastics. Our previous scorecards looked at government commitments in relation to phasing those out and our latest iteration of that scorecard to be released over the coming months will really prioritise legislation as a mechanism for phasing those out. It will slightly shift the dial and shift some of the States' and Territories' positions because what we have found now is that over the past couple of years, as we introduced that scorecard, there has been a significant amount of progress. I hope that answers your question.

The CHAIR: Yes. I am just reading it again. To clarify, you are basically saying that the significant progress is in what I understand was a draft discussion paper. The *Cleaning Up Our Act: Redirecting the Future of Plastic in NSW* has not been released yet in terms of exactly what the Government is going to do. I am asking for clarification around whether there was anything that the Government has actually done to signal significant progress or that WWF is hopeful because of these discussion papers that have been released. Is that what that means?

Ms NOBLE: Yes. I think we would classify the discussion paper and the scope of the discussion paper and the items that it does include as progress, certainly. As everyone would be aware, we were expecting the plastics plan to have been released several months ago. The point at which we were making those assessments around significant progress is starting to pass. Yes, it is based around the scope of that discussion and what it includes and what we believe will be included in the plastics plan.

The CHAIR: I will ask another question in relation to time frames and timetables. You mentioned that we were expecting a plastics plan out several months ago. We have targets and now we have an inquiry into this bill, and it will have to report back and everything else. There have been some submissions that suggest that the time line or time frame is too ambitious. What are your views on that, taking into consideration the fact that both of your organisations work across the whole country and work with all of the different States and obviously at the Federal level. Are the time lines in this bill realistic in terms of what the other States and Australia is doing or can you see that they will not be achieved and need to be pushed out? I am after your general views on that. I will go to Ms Noble first.

Ms NOBLE: Sure. I think it is a very reasonable point to make to look to other jurisdictions and their time frames and how they are progressing this. I note that some of the comments made by Boomerang and possibly others this morning did point to the fact that this is moving relatively quickly in other jurisdictions and one of the strongest calls from industry retailers and producers is actually around consistency. So I think there is certainly

an argument to be made for, if other States and Territories are moving on ambitious timelines there is no reason why New South Wales could not meet those regardless of the fact that this legislation might be introduced later.

The CHAIR: Mr Cucow, do you have anything to contribute?

Mr CUCOW: Sure thing. So I would note that under the national waste plan and the targets set by that there has been an agreement from both the State and Territory environment Ministers and the Federal Government as well to work towards a ban on problematic plastics by 2025. Just on that timeline alone, we really have to get moving if we want to be able to make that happen in New South Wales. However, from the perspective of the impact on national wildlife, we really cannot wait that long. We are already seeing impacts all over Australia and it has become undeniable. Every day that we wait we know that more plastic is flowing into the ocean and more ocean wildlife will die as a result. That is why we are particularly urging the Government to act with haste.

We are urging the Parliament to support measures such as these as quickly as possible. What we have seen in other jurisdictions is a time frame of about six months to give people time to catch up. Of course, that comes after legislation has passed, not including the time in which this is debated in government, in the media and talked about. It is enough time for businesses to plan for a transition. The other thing I would say is that with South Australia, Queensland and the Australian Capital Territory all having passed legislation this year and having bans in place this year, a lot of businesses that operate interstate are already having to get their house in order, as it were, and for them, offering them consistency as quickly as possible will really help them.

The CHAIR: I also have a question in relation to the Australian Packaging Covenant and your views on it. They have made a submission and will be appearing later today. Their submission is in relation to obviously talking about their 2025 national packaging targets. I am just wanting to get your views on whether these are achievable. We know that the packaging covenant is not mandatory. What are your views around this reliance on those targets and the voluntary and goodwill of business? Do you think that the targets need to be legislated at a national level?

Mr CUCOW: As it stands, even just looking at APCO's most recent report it is pretty clear that we are a very, very long way from meeting those voluntary targets. For example, the target for 70 per cent of plastic packaging to be recycled or composted, with only 18 per cent currently being recycled it is hard to imagine how we can get there with voluntary measures. We have had voluntary measures for a very long time now—for decades, I would say—and we are not seeing the pace of change that is required. We will see some of the big players come on board, of course, and we have seen some promising moves from some of the supermarket giants et cetera, but for us to achieve those kinds of targets we really need change in every business in every sector. That is not going to happen, unfortunately, without making these kinds of targets mandatory and without having enforcement programs in place.

The CHAIR: Yes, thank you. Ms Noble?

Ms NOBLE: Just to reiterate Mr Cucow's comments, WWF Australia is a founding member of APCO's Regional Plastics Pact. We think that is a really important initiative and it is really important to bring all of these organisations to the table to look at these issues and to develop some really ambitious timelines and targets on this. However, we do remain of the view that mandatory targets are absolutely essential to achieving even the targets that are being set out at the moment for 2025. We think they should be legislated federally, as well.

The CHAIR: In relation to the bill, are there any particular omissions, additions or improvements that you would like to speak more about now that you have not included in either of your organisations' submissions? Ms Nobel is shaking her head. Excellent. That was all very clear. Thank you both for appearing and for the work you do in this space.

(The witnesses withdrew.)

PIP KIERNAN, Chairman, Clean Up Australia, sworn and examined

TERRIE-ANN JOHNSON, Chief Executive Officer, Clean Up Australia, sworn and examined

SARAH-JO LOBWEIN, Co-Founder and Community Engagement, Sustainable Organisations of the Sutherland Shire (SO Shire), sworn and examined

The CHAIR: I welcome our next witnesses from Clean Up Australia and Sustainable Organisations of the Sutherland Shire. Would you like to make a short opening statement? I assume both witnesses have one. We will start with Mrs Lobwein.

Mrs LOBWEIN: Before I do, I have some photographs printed out.

The CHAIR: Would you like to table those?

Mrs LOBWEIN: Yes.

The CHAIR: Sure. The secretariat will get those off you.

Mrs LOBWEIN: Since 2015 our community volunteers have recorded a high quantity of plastic bud stems at all of our 15 clean-up sites at Botany Bay. In the past two years we have identified a high quantity of bud stem pieces, approximately six millimetres to 10 millimetres, at certain sites, and broken larger pieces. Cotton bud stems are made from polypropylene and breakage indentations are consistent with some sort of mechanical—not chemical or UV—degradation. We have determined these stems are coming from our local sewerage outlets due to the filter size. After high rainfall events, tides and swells we find hundreds. For example, 712 whole sticks and 254 pieces was our record at Potter Point on 29 March this year. Even on clean dates we still find 10 cotton bud stems per kilometre.

What is our data and evidence? The majority of Sydney's wastewater—in excess of 88 per cent—is treated to primary stage. This approximately 950 megalitres per day of wastewater contains smaller particles and dissolved pollutants. This seeding process is based on screening and therefore very small plastics are getting through this primary screening and ejected into the ocean. Locally where our sites are, our closest wastewater treatment is the tertiary treatment at Cronulla, which exits directly at Potter Point—so, inshore—and Malabar, which is a primary treatment. Its outlet is 3.6 kilometres offshore, which you can see on page 3 of those images. We have been finding more stems in our clean-ups on ocean-facing sites compared to estuary sites, suggesting that they are from wastewater not stormwater run-off. Other items that we do not have time to discuss today that we find also determines whether they have come from stormwater or sewage. We have put that in a longer report that has further information but there are pictures of those other items on page 4.

The step screen filters in the wastewater plants that are relevant today have a six millimetre aperture but the cotton bud stems are two or 2.7 millimetres in diameter, which you can see from the images on pages 5 and 6. We find measured pieces of those six millimetre apertures and these indentations indicating that there is mechanical breakage or weakening when those buds fall across the filters transversely. FOGs—fat, oil and grease, or oil globules—are another type of evidence. They are the white deposits visible in the pictures on pages 5 and 6. They leave a residue on the fingers and are toxic to dogs. FOG is released and created in sewer collection system from sinks and drains from homes, businesses et cetera and undergo reactions with chemicals in wastewater, resulting in the production of insoluble solids. When we find these cotton tips with this FOG on them it may be from a direct release of raw sewage from overflows or they have been sitting in the sewerage systems from low flow conditions and then make their way through the primary sector resistance and are not being broken down mechanically, biologically or chemically.

What are some solutions or proven solutions? In Warrnambool in Victoria the Better Buds campaign has resulted in the local wastewater, Wannon Water, to be upgraded in April 2020 with screens that are now 0.5 millimetres seals and one millimetre wire mesh openings, which is stopping the buds getting through. There are interstate and overseas bans on cotton bud stems, and in the UK they have seen a decrease in plastic stems washing up since those bans were introduced. There are re-usable and compostable alternatives that are already being manufactured, which I have images of on page 7 from our local retailers. I have a few demos here, too, if you would like to see them. Our recommendations include education. We call for a public education program statewide to inform the public on the correct use of private and public stormwater and wastewater systems.

Number two is to stop the source: upgrading all Sydney and New South Wales waste treatment plants to tertiary level and, at the very least, incorporate more efficient state-of-the-art screening filters in all Sydney and New South Wales primary treatment plants. Number three is to upgrade all the stormwater systems along the

various stages of the network, including finer physical filtration at the release endpoints. Number four is to prioritise the introduction of a single-use plastic policy that includes the banning of the use and production of plastic single-use items such as these cotton bud stems in the first stage of the policy, not phased out in the second stage. Lastly, number five is that re-usable systems and compostable single-use items need to be implemented statewide, supported and incentivised for manufacturers and their consumers.

That is what I have got to say. Obviously there are plenty of pictures that you can see—I have got physical if you want to see the actual indentations, the FOGs, but the pictures I think are okay. You can see quite clearly what is happening there. I have got a couple of re-usables and compostable items that are now available. In recent evidence, on Saturday we did Yarra Bay and Frenchmans Bay and I have here the cotton tips and the lollipops just from one kilometre. That is because of the swell. In different parts of Sydney you get the same number of lollipops as cotton tips because people are putting lollipops or they are coming from the stormwater. But in Cronulla, for example, we get way more cotton tips than lollipops and we can actually tell the difference: lollipops are litter—they are quite clean—versus what we are finding on the cotton tips that are washing up.

The Hon. SHAYNE MALLARD: The bottom line is people are putting them down their toilet.

Mrs LOBWEIN: They are putting them down the toilet, yes.

The Hon. SHAYNE MALLARD: Unbelievable.

Mrs LOBWEIN: Yes.

The CHAIR: Thank you. We will get into that exact issue during questions. We will go to Clean Up Australia for its opening statement. Ms Kiernan?

Ms KIERNAN: Thank you for inviting us today. Clean Up Australia was founded 32 years ago by my father. It is now the largest community-based environmental event in Australia. During that time 19 million Australians have taken part in a Clean Up event. Last year in New South Wales alone we had 300,000 volunteers who gave 600,000 volunteer hours to the effort and collected over 6,600 ute loads of litter out of the New South Wales environment that otherwise would have remained there. We are the trusted voice of the community when it comes to the environment. Over those years we have put out our annual *Rubbish Report*, which is a snapshot of what our volunteers are collecting in their efforts. Increasingly, that is made up of plastic. Some 50 per cent of what our volunteers report as collecting is plastic or contains plastic, which is increasing year on year. There was a 5 per cent increase from 2019 to 2020 in terms of the plastic collected.

The community wants to see change. Several of the witnesses today have touched on that point, but overwhelmingly our community wants to see these single-use, problematic plastics phased out. We asked our volunteers in 2021—some 9,000 of them, in fact—what their view was of government legislation to phase out single-use plastics. Overwhelmingly, 95 per cent of them were supportive of that action. We know that the sentiment is very strong for this change. There is also some research that was conducted during the pandemic by Pact Group that showed that 35 per cent of households are conscious of producing more packaging waste and 55 per cent of households are more concerned about the level of packaging waste.

As also touched on by earlier witnesses, it is going to take a collaborative effort to solve these challenges between government, businesses and the community. We have seen some great progress in other jurisdictions but we need New South Wales to step up and enact this legislation. It is also very important from the consumer point of view that there is this harmonisation across the country so that there is less confusion about what can go where and what items are phased out. We have seen some good progress from businesses stepping up to make these changes on a voluntary basis. For instance, this year we saw Coles phase out all single-use plastic tableware across the country. That was brought into play before the South Australian ban took place. We have seen McDonald's phase out their last plastic straw—that is 519 million plastic straws a year that otherwise would have been used and circulated. We welcome the proposed changes in the bill today and the community really needs you to enact this bill. Thank you.

The CHAIR: I will go firstly to SO Shire's very clear evidence for the phasing out of plastic cotton buds and confection sticks. You suggest that the bill look at that in the first three months rather than the first six months. Do you believe that industry has known for long enough and has been able to be prepared for that to justify the three months over six months?

Mrs LOBWEIN: Yes, I do. In other States, manufacturers that have overseas and also Australian items are already producing the non-plastic versions overseas or getting ready for the other States. We have already got a lot of these bigger companies already making them. For example, in Coles and Woolies we have got the

non-plastic options. They are ready. They got plenty of time. Also, these are one of the items that quite easily have an alternative. They are not a single-use item that is hard to find an alternative for.

We are not saying stop using cotton swabs or stop using cotton buds, but they can swap to the non-plastic items because, from our own data, there is just so many of them. It is not like something that we can look at later. If we are getting 200 washing up in two hours, if we were out there for five hours that day we would have got 500. These are not just from overflows; this is a regular occurrence. That is telling you how many of these cotton buds are just getting out into the ocean, breaking up into smaller pieces, microplastics and then obviously the flow-on effect of that. The short answer is yes.

The CHAIR: I assume that the same companies are producing cotton buds with plastic sticks and then realising there is a market for people who choose to buy the more sustainable alternative?

Mrs LOBWEIN: Yes.

The CHAIR: They are making it for that market as well at the same factory.

Mrs LOBWEIN: Yes.

The CHAIR: People will always turn to the cheaper product, and that is always the way.

Mrs LOBWEIN: Exactly, yes.

The CHAIR: I am assuming there is a percentage of people that would ordinarily take up something when it is more sustainable but, ultimately, not everybody moves until—

Mrs LOBWEIN: That is right, yes. What we have been finding—obviously years ago you had to get your plastic-free ones from online or from the smaller health stores. Now the big businesses like Aldi, Woolworths, Coles, you have got some separate brands that are only selling the compostable versions now. But then we have got brands like the Swisspers ones where right next to them they have still got their plastic ones in a plastic bag or in the hard plastic with the plastic stems, but right next to it—hiding next to it in a smaller box—is their compostable version. Then we take pictures over time—I think you cannot quite see in this one, but I take photos when the compostable of the same brand is cheaper than their plastic version, and also how things change in how they are displayed. Sometimes they are quite easily displayed next to the plastic ones; sometimes the bigger boxes—the bulk boxes, which are obviously going to be cheaper for consumers—are not there and they have only put the smaller of the compostable. But we have definitely got, for example, one brand like Swisspers—I think this picture is from Woolies—where they have definitely got their plastic options and the compostable options. They are making them at the same time. They could easily stop making their plastic versions.

The CHAIR: I just wondered if we could touch on—this question will be for all witnesses, I think—the difference between education and mandating companies to stop producing a certain product. Education will work to a point—and Clean Up Australia has probably had many years' experience around the "do not litter" campaign, for example—but at some point not all behaviour changes. Would you care to talk about whether you think it is important for legislation like this to occur where things are phased out, or do you think education can cover it?

Ms KIERNAN: I might start with that. I think it is a combined effort between the legislation and the education. We know from past experience over 32 years that if it is not mandated, we do not get the success with this sort of change. But we also need education, and it has been touched on earlier today that there is great confusion for the consumer about what can go in what bin. That needs to be a big part of these changes. As I said it is a collaborative effort between business, government and the community but we need to bring community along on that journey and simplify it. We do not want to have a situation where we are phasing out certain problematic plastics but they are being replaced with others that are perhaps greenwashing and where there is not that understanding by the consumer. Education is a big and important part of these changes. Did you have anything to add to that?

Ms JOHNSON: The community responds very well to education programs, but ultimately it is very confusing. When you are standing in that supermarket aisle and you have one crying child and a basket, you will not want to stand there and read minutely all of the labels. It would be so much better if you could just make that decision quite quickly and know that you can safely dispose of that product without creating more of a problem in the process. That is really what we should be aiming to do: making it as simple as possible for every one of us to make those decisions very quickly.

The CHAIR: Thank you. Mrs Lobwein?

Mrs LOBWEIN: Yes, I agree. We have a little saying, "Swap for the sea", so making it as convenient as possible for the majority of people. We have people who will source the correct products and know where it goes but for the majority of people, exactly as you have said, it is time and convenience. If you take away the plastic option then they cannot quickly pick up the plastic option. I hate to be pessimistic, too, but on the flipside—education is very important but unfortunately we will always have people that will throw things down the loo. Here we are in 2021 and people are using our sewerage system like a bin. Sydney Water and other wastewater treatments around Australia have plenty of information on their websites for their residents saying only the three p's down the loo, but as you can see something is happening. People are obviously just using—I do not know whether it is a convenience thing but they use it and they just throw it down the loo.

Education is important that way, but we will unfortunately always have litterers. This is the thing with the plastic packaging and the single-use items. The less plastic that is able to be littered, the less will be a problem for our environment and for our own health. I think that education and obviously banning the products, banning the source, have to work together. But we will always have this small number of people that will do the wrong thing, whether it is on purpose or absentmindedly. If the product is not there for them to do anything wrong with it then we have stopped the source.

The Hon. MARK PEARSON: Ms Kiernan and Ms Johnson, did you approach McDonald's or did McDonald's do it off their own bat?

Ms KIERNAN: McDonald's has responded to the change the community wants to see.

The Hon. MARK PEARSON: So you did not make a submission or an approach to McDonald's?

Ms JOHNSON: We have had several discussions with McDonald's over the years and they have been quite reluctant, purely because they are a global company and so they are unable to make those decisions based just in Australia. They could take a leadership position but unfortunately they chose not to at that point in time. They were looking at overseas experience. They have been working on this, particularly in the UK, for quite some time with very mixed results. Some of the options that they came up with early in the piece just did not actually work, so it did take them some time. But we also appreciate there was a quickening of the process after the ABC waste story—the turtle that arrived in Thornleigh.

The Hon. MARK PEARSON: Yes, there is nothing like a little bit of fear and pain to get these big companies moving.

The CHAIR: I just wanted to check one of the statistics that you referred to in your opening statement, Ms Kiernan—I think that plastics now make up 50 per cent or have increased 5 per cent from last year. Was that an increase of 5 per cent in relation to the overall quantity, or the make-up of 100 per cent of plastics?

Ms KIERNAN: This is based on our *Rubbish Report*, so this is a snapshot of what our volunteers are collecting and reporting to us. From 2019 to 2020 there was a 5 per cent increase nationally in the amount of plastic being reported as collected.

The CHAIR: In relation to that, we have heard a fair bit today about the greenwashing by companies suggesting that their plastic products, plastic bags and what have you are biodegradable or oxo-degradable—that they will degrade—when they are not. Are you finding quite a bit of this, whether in pieces or whatever, in your clean-ups?

Ms KIERNAN: We have found that the various levels of phasing out of plastic bags across the nation did impact our rubbish counts on plastic bags. It was slightly higher for New South Wales because we have not had a ban on the plastic bags. But we do find that, similarly with the container deposit scheme, when we put a value on those items we collect less of them as well. With the 10c refund scheme for containers, our volunteers were pulling less of those out of the environment once those schemes were well established in certain jurisdictions.

Ms JOHNSON: But to take your point, yes, we are finding a lot of pieces. We are having lots of reports of torn plastics and torn pieces. Polystyrene is a huge issue as well, because once it is out in the environment it breaks up very quickly into smaller and smaller pieces. Of course what is happening is that the counts of that are accordingly changing. So yes, lots of torn materials and smaller broken-up pieces are finding their way into these counts now. Part of that, as well, is awareness: People are actually looking for them. As we are talking more and more about this and as the media is picking it up more and more, we are finding that people are actually looking for it as well. That is where the education comes in. We are opening their eyes to what is around them and they are becoming a lot more involved in trying to come up with a solution, which is why they really need this Government's help to get these things across the line.

The CHAIR: Is it the same with SO Shire?

Mrs LOBWEIN: We literally started 10 years ago but the actual data did not start until five years ago, but in that 10 years we watched the amount of litter increase. Obviously that has to be anecdotal because we do not have the data, but what was being washed up was less than what was being littered. We were concentrating on balloons, for example. That was going to be our source reduction plan. We get 10 balloons in one kilometre every clean-up, so the fact that 19 balloons in New South Wales can be released into the air is just ridiculous. We would start off looking at that and then by looking down and counting the balloons, that is when we started to see trends in the other things that we were picking up. We watched the cotton tips increase over time and then watched the other trends—where it was not just after a swell, for example. It was 200 on a normal clean-up, whether or not it has been after a big swell.

Then the pieces started coming. We never saw little pieces before. Obviously that could be anecdotal, too, because we were not looking for pieces back then. But I am pretty sure that when I was doing other clean-ups, if I lay my towel down and saw small bits of white plastic, I would have noticed it. We have watched the small pieces increase over time, as well as cotton tips. Ten years ago walking along the beach doing clean-ups I did not pick up cotton tips, and now today I could go down and I would pick up 100 in a kilometre. We are seeing certain items definitely increasing, and polystyrene and cigarette butts are some of our huge items. Obviously polystyrene has to be banned because you just cannot pick it up. At least these items we can pick up; it is tedious but we can pick them up. The polystyrene blows; it keeps on breaking up into smaller pieces.

We recently did a clean-up in a nature reserve off Towra Point and we picked up plastic bottles and glass bottles from the 1960s and 1990s, for example the plastic bottles from the nineties that had the black bottoms. I do not know if you remember the production of the plastic bottles. Underneath that there were just millions and millions of small bits of polystyrene and microplastic that we just do not have the solution to collect at the moment. It is just there. The plastic bottles that were not breaking down we can pick up. The glass bottles last forever; we can pick them up easily. Obviously the bigger plastics are breaking down, but the smaller bits are increasing at a rapid rate. We have to stop the big bits of plastic ending up in the environment so we do not have these smaller bits breaking down—or breaking up, I should say. They do not break down; they break up.

The Hon. BEN FRANKLIN: Thanks very much for being here. Particularly to Ms Kiernan, I just want to say thank you. Your father was a hero of mine and I am thrilled that you are still involved in the organisation—one, as you rightly say, that carries a significant brand of both awareness and credibility in a way that I think many others do not in Australia. I just want to say thank you for that. You particularly talked about the fact that there is an increasing level of public support for doing something in this space and I think you are right. I guess what I was interested in is the level of engagement in the sort of voluntary work you do from the community and potentially yourself as well. Can you give us an indication as to whether that has been increasing significantly over recent years.

Ms KIERNAN: Yes. We have been really encouraged over the past two years. We just got through the bushfires two years ago and we had incredible community support. And then of course this year's clean-up was in the middle of the pandemic and we had more community registrations than ever before.

The Hon. BEN FRANKLIN: Great.

Ms KIERNAN: We are seeing this incredible goodwill from the community to get out and do the practical action. They like the fact that, regardless of where you live, who you are or how old you are, you can get involved with a clean-up activity. But it is about more than just picking up the waste. It is about going to the source and tackling the waste challenges at the source. We have great engagement from our community through social media. Whenever we have done any posts around the phasing out of single-use plastics, those are the posts that get the engagement through the roof. As I mentioned, there is the survey of our 9,000 volunteers around Clean Up Australia Day this year who are really overwhelmingly supportive of this change. Not only are they willing to get out and do their bit in terms of their volunteer hours, they really care about the issues that we represent on their behalf and they want to see this change.

The Hon. BEN FRANKLIN: Thank you. And do you find the same, Ms Lobwein—that people are speaking with their feet?

Mrs LOBWEIN: Yes. Our first official clean-up as a group was 2015 for Clean Up Australia Day. From that moment that was a great event because the people who turned up thought the beach was clean and then when they actually saw what they were picking up they thought, "A clean beach", and then they saw what was actually there on a clean beach. From that, that is why we started the group—because people wanted to do more regularly. You can do Clean Up Australia Day not just on the Clean Up Australia Day weekend. But then we

started looking at the volunteers who wanted to do something with that—not just clean up because if we clean up that is all we are going to do; it is about stopping the source. So that is when we started looking at counting the items to see what was there to try to link it to the source. We worked with businesses and the community to stop the source of these particular items.

Then we found we have different types of volunteers and communities. Pre-COVID, we would have three big clean-ups a year and you would have 120 people turn up wanting to pick up rubbish; but, that was an awareness thing because they would say, "Oh, why are we here? This looks like a clean beach." Then they come back with 2,000 butts and go, "Oh, I didn't see them"; or the 20,000 bits of plastic that weighs next to nothing, but they are 20,000 bits of plastic; and then to the core volunteers that through that went, "Right, what can we do?" They are the ones who get this data. So they are out there whenever they can at these sites counting the actual items. That is the tedious bit. You pour it all out, you separate each different item, count it, tally it, and work out what is going on.

Before 2015, obviously I was doing things on my own in part of different groups, but locally we are seeing a lot of people being interested and wanting to help clean up. But they are also at a loss about what to do after that because they are so overwhelmed with the products that they would like to buy, but they are not there or they are too expensive or there is not a variety of them.

The Hon. BEN FRANKLIN: Totally. I guess the sense that I was trying to get is: In the past few years, have you seen the numbers increasing, or not?

Mrs LOBWEIN: Yes. Sorry. Short answer—yes.

The Hon. BEN FRANKLIN: Thank you.

The CHAIR: What do you both have to say to, I suppose, industry but also potentially Government that might say, "This is all too complicated. The plastics industry is very complicated. It is going to take a very long time to phase all this out. Give us time. We'll get there." What is your comment on that, Ms Lobwein?

Mrs LOBWEIN: I will try to keep it short but, basically, it is going to cost us in the long run either way. It is going to cost us environmentally; it is going to cost us in human health; it already is; obviously, we do not have time here and that is not what I am presenting, but it is going to cost us financially, socially, health-wise. So we have to start. We are already 20 years too late. That is my personal opinion. It is achievable and it is doable. We are seeing different parts of the world implementing plastic policies and they are showing that it is achievable. There are some amazing products being invented—amazing re-usable systems—so it is not all about creating an alternative to plastic that is still single use. There are different types of re-usable systems—whether it is re-usable cup systems, swap and drop, re-usable containers, swap and drop—so the community and business need the support because they are kind of treading water.

Some of the businesses are waiting to be forced to do it. We have talked with a lot of businesses about costs. At the moment we are watching different items come on par. For example, we talk about paper straws. We have watched, over the past five years, with community support and businesses making them, paper straws are now almost on par with how cheap plastic straws are. Like I said I will try to keep it short, but I think we have to act now so that businesses and community can—make it easier for them.

The CHAIR: Thank you.

Ms KIERNAN: I think—to answer your question "Is it all too complicated?"—no, it is not all too complicated. Justin Bonsey from the Southern Sydney Regional Organisation of Councils articulated it very well this morning when he said it is an incremental approach. So start with the low-hanging fruit, start with the problematic single-use plastics and what is proposed in the bill, and then we go from there. We have got great examples across the rest of the country where we have successfully started to phase these out. So it will take a collaborative effort between business, government and the community to bring about lasting change and to create this idea of a secular economy where, as my father used to talk about 32 years ago, there is no such thing as waste. So it is a journey. We are not going to get there overnight and it has been raised today some of the challenges about how we capture and sort some of these materials and ensure that they are circulating and being recycled. But we have to start somewhere and this is a great proposed start to start with these problematic items and start phasing them out.

The CHAIR: Thank you. We are out of time. Thank you very much for the great work you do—the thousands of hours of time that no doubt you have put into cleaning up our environment from all this litter that gets in there. Thank you so much. It is so important. Thank you for appearing.

(The witnesses withdrew.)

SERENA OVENS, Chief Executive Officer, Physical Disability Council of NSW, affirmed and examined

HAYLEY STONE, Senior Policy Officer, Physical Disability Council of NSW, affirmed and examined

The CHAIR: Do you have an opening statement? Yes, Ms Ovens.

Ms OVENS: Firstly, my thanks for asking the Physical Disability Council of New South Wales [PDCN] to provide evidence here today. PDCN is the peak body for over one million people with physical disability who live in New South Wales, providing systemic advocacy, expertise and advice to our members and stakeholders, and taking their collective issues and concerns to government to continue to improve their human rights and inclusion in all parts of society. Unfortunately, even today many of our members face discrimination, exclusion, and inequity in New South Wales society, no more so than when out and about in community. Because of this, PDCN is very concerned about the upcoming changes to the Waste Avoidance and Resource Recovery (Plastics Reduction) Amendment Bill. Whilst we applaud New South Wales' desire to reduce plastics pollution, we feel that if this is done on a wholesale basis before any suitable alternative to single-use plastic straws can be sourced, this will come at an even further cost to many of our members—those who require plastic straws to eat, drink or take medications because they cannot do so independently. We must stress that we are not pro-plastic; we are pro-accessibility.

Plastic straws are not a lifestyle choice nor a luxury for some of the people with disability. Those that use them do so because it is the only way they can drink or eat. Plastic straws handle all temperatures, all types of liquids, are flexible but do not disintegrate on use, do not become a choking risk or are unsafe for those with biting issues. Other alternatives such as paper, metal, silicon and bamboo each have drawbacks that can be unsafe for a person with disability. PDCN cautions the Committee to ensure that in making the amendments to the bill, we do not place further barriers to participation in community on people with disability, or greater costs in order to meet the basic needs of eating or drinking on those who are often least able to afford them.

We are concerned that the bill as it stands will medicalise plastic straws, making them harder to purchase and requiring people with disability to carry straws with them in public, becoming another reminder that the fundamental rights of people with physical disability come in second place to the broader public policy initiatives. We remind the Committee of Australia's commitment under the Convention of the Rights of Persons With Disabilities to work towards universal design, of which plastic straws are an example. We propose instead that we look to manufacturers to find better ways to recycle plastic straws or to find a biodegradable alternative to single-use polypropylene products but in the meantime allow retailers in the food, restaurant and catering industries to service their clients equitably by continuing to hold some supplies of plastic straws for those who need them.

Lastly, let us do our part as part 5 of the Act and its relevant objectives suggest in division 1 section 48A (c), and whilst encouraging a more conscious consumption of resources through public education, also educate, understand and support the needs of people with disabilities to access vital plastic drinking straws whilst out in community and not put the shame or burden back on them. Until vital alternatives to plastic straws are available, we must be mindful of the words of Alice Wong, a disability activist with neurological muscular dystrophy when she says:

> Once you have something that provides access, it is difficult and harmful to take it away from a marginalised community that depends on it. I live in a world that was never built for me, and every little bit of access is treasured and hard-won. Bans on plastic straws are regressive, not progressive.

Thank you.

The CHAIR: Thank you very much for your opening statement and for appearing today. We will go to various members for questions. I will kick off with a broad question if you like. During the drafting of and deliberation on this bill—because this is a Greens bill which my office looked into and drafted—we were very aware of this issue. Firstly, I wanted to explore this requirement—the attempt, if you like, that we put into the draft bill—to deal with this. We have acknowledged that it is an issue and we have not put forward this legislation with "Let's just ban it and plastics are more important than accessibility"—that is ridiculous and not the intent. What we came up with was proposed section 48G, which says:

> (1) The plastics elimination targets are subject to any legitimate reason for manufacturing, selling or distributing single-use plastics—
>
> (a) that meet the access needs of people who, because of a physical or other condition, need the items to be able to eat or drink safely, independently and in comfort, or
>
> (b) that are required for medical, therapeutic or health-related purposes.

The proposed section states "subject to any legitimate reason for manufacturing, selling or distributing single-use plastics". If shops, hotels or cafés still had plastic straws—the bendy ones that are the best ones—they could just have them there and give them to people who request one. There are still issues with that; is that correct?

Ms STONE: Yes. I think there is insufficient clarity around how that is going to work in a practical context and I think that really goes to our concerns. One of the things that we raised in our submission was that we were not sure whether that would mean that plastic straws became, for instance, medicalised and would only be sold by specific suppliers and that that would reduce their general accessibility for people with disability. So that is one of the concerns that we had. I do think that possibly some of the other jurisdictions who have also looked at this issue have provided a little bit more clarity in what is intended by the exemption provisions. I think that we would like to see a little bit more clarity on just what it would mean in a practical sense.

The CHAIR: Could you expand on that last bit which is important as well? Do you have any further detail to guide the Committee when we look at this? You are suggesting that maybe some other jurisdictions have provided greater clarity. Could you expand on that?

Ms STONE: For instance, in my preparation I have had a look at some of the other jurisdictions. Some jurisdictions have adopted an approach where they provide exemptions for sale, distribution or supply by a person or class of persons to or in respect of persons who require them for disability or medical requirement. Again, it is not ideal but I think what we really need to see, and what would add additional clarity, is if it were to specifically state that the suppliers like cafés and businesses that would normally provide plastic straws were able to hold supplies of those straws and distribute them on an as-needs basis to persons who would reasonably be expected to otherwise need those. Then you could clarify that by adding that a class of person, for instance, would be someone who had physical disability. So what we really need to see is that the plastic straws are available at the point where a person would usually access them. So at that stage where it is a cafe, a bar or a place where a person would be purchasing food or drink.

The CHAIR: Thank you. I understand Ms Sharpe has a question or two.

The Hon. PENNY SHARPE: I have been interested in two things. Obviously other jurisdictions have moved on this. Could let us know what the feedback is from people with disability? Because even if they have got those clauses in there, is it the case really that if you go down to the street to have a cup of coffee or get a drink at your local café, that they have moved? Do they still have stashes of straws that are there? Has that been the experience?

Ms OVENS: I cannot talk directly to individuals in other States as to what their experiences have been but I can take that on notice and ask for feedback from our fellows across the country. Our concern is that in some States it goes to the need to even carry a permit or a licence to show that you have a disability and need a straw, which is really prohibitive for someone with a disability to have to do such.

The Hon. PENNY SHARPE: I agree with you. I think that would be a terrible outcome. I am just wondering about some of the big retailers. McDonald's is often talked about in terms of its changes with its straws. Again, have there been conversations with organisations like yourself and McDonald's about the impact of that, or is it that people have just had to go, "This is just the way we do it now. There's no room to move"?

Ms OVENS: We have not had direct contact with McDonald's or other large retail stores et cetera. We do know that there are some changes already happening. Some of our members who do purchase their own straws because they need exceptionally long straws are already seeing those disappear out of the markets. They cannot purchase them like they could do very cheaply in party stores et cetera where they were available. Of course Australia is a very small market, so we lose our manufacturing side very quickly and then have to go and look for a product internationally, which then also becomes a bigger issue at that point in time to try to source and deal with the cost. We are concerned that this will become an issue that is a cost issue for people with disability, full stop, as opposed to retailers and suppliers. Once again, it is a problem for people who have very little resources initially in the first place, particularly many of the people who have actually needed these because they often have quite a high-level disability, who are not working like you and I, and who are sitting on a disability support pension and have very little access to additional moneys to spend on additional resources.

The Hon. MARK BUTTIGIEG: I might have missed some of the details. Just to sharpen that up a bit, if you were to put a mandatory provision of stock to be distributed on a—

Ms OVENS: As-needs basis.

The Hon. MARK BUTTIGIEG: With the specifics of what the as-needs basis is depending on whatever the specification is, that would tighten it up sufficiently then.

Ms OVENS: Absolutely. We are happy to see mandatory stock kept in all retailers and resources and outlets so that people can request them as they require of them, as opposed to having to try to resource them themselves and carry them with them. Some people cannot literally hold them anyway. They will need someone to help them.

The Hon. MARK BUTTIGIEG: Because the fear would be that if you are a small cafe or an operator like that, you might not bother if it is not mandatory.

Ms OVENS: Correct. If the cost becomes more too for anybody, even the retailers, then they may not; or they might think they are doing the right thing, which we heard about before, where they are providing paper straws but do not realise that that is a problem for people with disability who need them for different reasons.

The CHAIR: I will just jump in here in relation to a note in your submission that there is potential possibly for—you have here that "plastic straws are normally considered able to be recycled". Firstly, whether they are recyclable but also have there been straws made from—and we have heard evidence today about some plastics that are labelled biodegradable but are not. Have there been straws made that are supposedly biodegradable as well, do you know? Have they hit the market yet but made of plastic that are usable?

Ms OVENS: Not that we are aware of. We would love to see it, obviously. The more that we can produce a product that is able to be biodegraded and used would be wonderful. Polypropylene straws are recyclable. The issue is that the processes that we use at the moment mean that most of them get filtered out in the sorting process and fall out and end up in the rubbish as opposed to recycling. So having techniques like some companies do where they provide a specific box for people to recycle their straws—we are all quite used to putting our plastics in a plastic bin, our paper in one and our rubbish in the other. If we can, particularly large retailers such as McDonald's and Hungry Jack's et cetera, have an area we can actually put your straw, then they can be bundled together so they do not fall through mechanisms to recycle them.

The CHAIR: That is potentially partially an option.

The Hon. BEN FRANKLIN: Thank you very much for being here today. It is an important issue and one that I think a lot of people—frankly, including me—had not considered. Obviously part of the issue is about supply. Another part of the issue would be, if and when we go down a line of getting rid of plastic straws overwhelmingly, to create the education for those facilities, cafes and so forth for them to understand what they need to do and so on. Could you talk to how that would be achieved? When the overwhelming majority of straws will not be plastic, what needs to happen in that space with making sure that businesses, restaurants, cafes and so on understand what their responsibility is and how best they can be educated?

Ms STONE: I can talk to that. I think that possibly the Plastics Reduction Commission could have a role in that. I really do welcome the introduction of a Plastics Reduction Commission. I think it is a fantastic idea and other States are looking to adopt something similar. The issue that we have got here is an interplay between environmental protection and a basic human right. I would imagine that an appropriate entity to push for a public education would potentially be the Human Rights Commission. Obviously organisations like ourselves would be promoting the use of plastic straws where we felt that they were necessary. Broader community and awareness across the sector will be difficult to achieve, but I think it is not impossible to achieve. I think that many people with disability themselves are very strong advocates for their own rights, and I think that they would themselves be pushing for the provision of plastic straws.

Ms OVENS: We just hope that the onus is not always put on the person with disability to do that.

The Hon. BEN FRANKLIN: Absolutely. I guess that was part of the motivation for my question, because we have that responsibility as legislators and so on.

Ms OVENS: So do we. As an advocacy organisation, that is very much what we do as well, but obviously there needs to be education at all levels. So a top-down approach using the commission would be great. A public awareness approach that is done through our usual television campaigns et cetera could also help, but we equally can target and talk to those organisations, particularly ones like McDonald's and Burger King, in the retail sector areas where we can have an effect as well is something that we can do.

The Hon. BEN FRANKLIN: I suspect talking to the industry will actually be the most important side of this. That is very interesting. Thank you.

The CHAIR: I just wondered whether you have had consultation with the State Government. It has a draft plastics plan that has been out for a discussion. I am assuming you potentially made a submission to that. Have you had any other conversations with any area of government about assistance or working on this particular

dilemma because it is also of course looking at, as we hear, something in relation to phasing out plastics at some point in time in the future?

Ms OVENS: There have been a couple of roundtables over the last—I am going to say two years. There was also quite a considerable concern brought up a while back that People with Disability Australia took quite a lead on, but we have not addressed or been aware of the Government's specific policy on this to deal with it.

The CHAIR: Would you welcome further consultation with them before they brought out a final plan?

Ms OVENS: Absolutely. Yes, always.

Ms STONE: Definitely.

Ms OVENS: Unfortunately, we are small and so keeping on top of every single legislation that comes across the table can be quite difficult. Sometimes we see them and other times they do not hit our desks.

The CHAIR: Yes. It is important that they do. Thank you. I think your request to the Committee today is very clear and simple. We are out of questions, but your contribution is incredibly important. Thank you so much for appearing.

Ms OVENS: No problem. Thank you.

Ms STONE: Thank you.

(The witnesses withdrew.)

(Short adjournment)

ROWAN WILLIAMS, President, Australasian Bioplastics Association Incorporated, before the Committee via videoconference, sworn and examined

PATRICK LIU, Chief Executive Officer, Sincere Medical Australia (trading as EcoAID Bio Tech), sworn and examined

The CHAIR: I welcome our next witnesses. I assume you both have opening statements to make. I will go to you first, Mr Liu.

Mr LIU: Thank you, Chair, and every Committee member for this opportunity and for organising this hearing. I hope this pass of the bill and this hearing can be a turning point to save hospitals from plastic pollution. Our mission started in 2006. By 2010 we rolled out the first sugarcane-based kidney dish for hospitals in Australia and probably even in the world, with our very first customer being Concord hospital in Sydney. Ten years later—right now—we have created and marketed a whole range of plant-based material to replace plastic. Our products spread all over Australia and New Zealand, and we are in discussion to roll it out in European markets and the UK market. Also, we are committed to innovation and we are now working with a prominent university in New South Wales to create some unique formulation for our products to expand our product range.

While we are fighting with the plastic pollutions we are facing some challenges. Firstly, while the usage is going up, the adoption is still slow and patchy. There is a need to increase adoption by identifying and cutting down the man-made barriers and to provide funding and incentives to offset the current high cost of the plastic substitutes. Secondly, we are committed to be the closed-loop solutions. There is need for the Government to step in to help the business and help the hospitals to build up a scheme of composting and recycling medical waste. It is very urgent now, otherwise more and more medical waste will end up in the landfill. Thirdly, I think that innovation is the key. We hope the Government can provide more incentives and to boost innovation, in particular provide more incentives to the universities and the companies to adopt and to commercialise a lot of technologies already available. Waste reduction should not be a burden or a cost to our economy. I think now is a new opportunity for investment and for the economy to grow and create more jobs.

In closing, I want to thank again the Committee members for your initiative. I believe there is a lot of things we can do. In particular, I want to thank every frontline worker because every day we receive emails from them. They are crying for change. Without their passion and their inspiration we would not go this far. Our products were previously featured in ABC's *War on Waste* TV program, and the war has started. We have to be quick. There is not much time left for us to fight to win this war and not much time left before the average temperature increases three degrees. There is not much time left for a lot of household families. Businesses have to relocate because that piece of land is not suitable and not inhabitable anymore. It is time before we run out of time. Thank you.

The CHAIR: Thank you very much for that statement. We will go now to Mr Rowan Williams. Do you have a statement as well?

Mr WILLIAMS: Yes, I do. Just a brief one. I apologise for not being there in person but I am currently in lockdown.

The CHAIR: That is absolutely fine. We have had several witnesses already via videoconference. It is just as good as appearing in person.

Mr WILLIAMS: Thank you. I do have a statement. Good afternoon, and thank you for the invitation to attend to give evidence to this inquiry. My name is Rowan Williams. I am the elected president of the Australasian Bioplastics Association, and it is in a voluntary capacity. My day-to-day full-time job is working for BASF Australia, where I am the regional market development manager for biopolymers, looking after Asia Pacific, advocacy in stakeholder management and education on the development of this market for the appropriate use of biopolymers whether certified compostable or fully bio-based. Our key messages from our submission were that if certified compostable bioplastics are to be promoted, they should be certified to the requirements of the Australian standards—which are Australian Standard 4736 and Australian Standard 5810 for commercial and home composting respectively.

We would like to point out that the proposed section 48B (ii) has an inconsistency that could be better clarified. The National Plastics Plan and Federal targets for all packaging to be recyclable, re-usable or compostable by 2025 is out of step with the 2024 target in this bill. Section 48D, wherein all packaging will contain 30 per cent recycled plastic, is inconsistent with the low in compostable plastics as they cannot and do not contain recycled content. Their end of life is destined for organics recycling such as composting or anaerobic

digestion, and there will be nothing left to recycle. Single-use plastic bans should be extended to cover agricultural applications such as mulch film and perhaps silage wraps and things of that nature, which are rarely recycled or recovered or disposed of appropriately. Single-use bans should be extended as in the National Plastics Plan to cover all fragmentable technologies such as oxo-degradable, oxo-biodegradable, enzyme mediated or any technology that cannot meet the requirements of the Australian standards where food contact has occurred or food waste is in evidence on the article. Thank you. They are our key messages.

The CHAIR: Thank you, Mr Williams, for pointing out some of the various points that you did in relation to the bill in your submission and that you have just summarised. I think it is an extremely good point in relation to the fact that certified compostable packaging cannot be comprised of at least 30 per cent recycled plastics. That is very important, and we will take that on board. Mr Liu, they are quite impressive numbers that you have in your submission, for example 28,700,000 products that you have sold and you have saved 700 tonnes of plastic waste. What is the incentive at the moment for hospitals to go down the path of procuring your materials? Hospitals are under financial pressure and some of them are kind of struggling to potentially get various materials. Is pressure coming from staff, as you suggested? Is there any legislation in other States that is making this mandatory or is it at the moment just the goodwill of a hospital to try and look a bit more sustainable?

Mr LIU: Very good question, thank you. We actually look at this issue from two angles. One from the top to see all financial directors to help pressure on the budget. Normally actually initially they are reluctant to change, particularly if our price is higher, because they want to meet their target. But actually the spark comes from the staff. They are the one to spark the fire and they actually raise the issues. In the hospitals a lot of the individual departments—like operating theatres, the theatre managers are very determined. They say, "I want to use this product no matter how much it costs." Or some surgeons say, "I want to use [inaudible] no matter how much it costs," so the hospital has to put it in place.

A lot of the initiative and incentive come from the staff. They are the ones to create the changes. We call them influencers, from social media's point of view, because a lot of staff, nurses and doctors, they are not only working in one hospital. They might even be working across States and they even work overseas. They use one of our products in Westmead probably. When they move to Brisbane's Princess Alexandra Hospital, they will start to ask the staff, "Can you bring me these products? I do not want to use this plastic anymore." That is the point now. In particular right now, every hospital does have a sustainability manager and some health districts. They also play a very vital role to implementing the procedures. I believe more and more hospital staff have the awareness and the incentive to change. That is why we hope that the Government and the bill can give another boost to make things happen.

The CHAIR: We have heard a fair bit today about the claims by companies that their product is biodegradable but it is oxo-degradable, which I have learnt a lot about in terms of the difference and the fact that they do not biodegrade but break down into very tiny little bits and then make their way into our oceans and everywhere else. Mr Williams, how does this biodegradable claim impact on the Australasian Bioplastics Association? Is it confusing? Does it confuse customers? What is your recommendation for this Committee around that claim?

Mr WILLIAMS: It does not cause the association grief other than we have to spend all of our time answering exact questions like that because simply the claim of biodegradable or biodegradability unqualified is completely meaningless. It does not tell you the when, the where, the why, the how, if any biodegradation occurs and if it does, what are the by-products of that biodegradation and under what conditions. The only way globally to know that an article or widget has the inherent property of biodegradability is it needs to be certified compostable. Within the global standards for compostability you have pass or fail tests for biodegradation and disintegration of that widget. There is not a standard for biodegradation anywhere, but there are test methods for biodegradation and disintegration that sit within the global performance standards.

The Hon. MARK PEARSON: Just for clarification, when is it actually disintegration? The problem we are grappling with is that more and more evidence is pointing to the fact that, as you say, this notion of biodegradability really needs to be defined in terms of plastics and how a plastic degrades, and when it does degrade is it just differently dangerous or a different problem. How do we achieve disintegration and is there anything left after disintegration?

Mr WILLIAMS: Great question. First of all, can I have it recorded that we do not talk about degradation, it is biodegradation. Biodegradation occurs in the presence of microorganisms. These polymers or these articles need to be consumed by microorganisms in the right conditions. Everything degrades. We are actually degrading in front of each other right now. We can put it that way. The measure for biodegradation is that you have to evolve CO2. Small amounts of CO2 will come off the article and that evolution of carbon dioxide can

be measured and normally it needs to be greater than 90 per cent of the article within 180 days for commercial composting. But in practice, a plastic bag or a package or an article will biodegrade or evolve that CO2 in a commercial composting pile, windrow or in a home composting scenario relatively quickly. Instead of 180 days in commercial composting, in practice they are normally gone in four to six weeks.

In home composting, because it is highly variable, how you might manage your home composting pile compared to how I might be the extreme between really well managed and an uncontrolled landfill. Again, it depends very much on how that is managed. But nonetheless if it is done well, this process of biodegradation occurs relatively quickly leaving, if it is greater than 90 per cent, around 10 per cent of the material as water and biomass. There is not anything left at all. You can call it 100 per cent biodegradation and disintegration as part of the same process within that time frame. Oxo-degradables and these other degradable plastics, because they do not have the property of biodegradation at all, will only fragment—

The CHAIR: You put inverted commas around the word "degradable" but Hansard will not capture that. You may want to say "so-called degradable", maybe.

Mr WILLIAMS: "So-called degradable" is fine. All conventional plastics and all bioplastics are degradable by nature, but biodegradation and subsequent disintegration is guaranteed by the certification here and abroad.

The CHAIR: This is for both witnesses. What happens with your products when they are not disposed of in the optimum way? If biodegradable plastic bags are used for rubbish, they go in the non-recyclable bin, they go into landfill, what happens to them, Mr Williams?

Mr WILLIAMS: Obviously the first thing we want is we do not want them to get into the landfill, we want them to be properly disposed of. These articles, if home compostable, will be disposed of at home—part one. If they do go off in food organic and green organic [FOGO] collections, then they are often going to composting or organics recycling. If they do go into the conventional recycling bin, which can occur, then they will probably be pulled out today. But as we move down a path of getting rid of single-use plastics that are non-compostable, in theory there will be more compostable materials that will go into FOGO and will go into home composting in the future.

If it goes into a landfill, you have now created an anaerobic environment which is devoid of the beneficial microorganisms that will biodegrade and subsequently disintegrate the article. It will occur but it will take a lot longer. Landfills are normally heavily compacted and devoid of oxygen, so you do not have the same quantum of beneficial bacteria or microorganisms or fungi to digest the polymer or the widget, as we called it before. If lost to the environment, clearly they will biodegrade and disintegrate in an unknown time frame. It could be fast; it will certainly be faster than conventional plastic. But the idea is not to let them get lost to the environment in the first place. Here we know that 80 per cent or 90 per cent of plastic waste in the environment or in the marine environment is terrestrially generated, so we need to stop it at the source. That is why we have an entire program of logos, certification et cetera to make sure they go to the right end of life.

The CHAIR: Mr Liu, there is a certain requirement for masks to be disposed of properly. Does composting that waste not potentially risk the need for them to be disposed of safely, medically?

Mr LIU: Yes. That is why I think in one of the recommendations in my opening statement I said there is an urgent demand for a scheme to establish that. We actually talk with hospitals, we even talk with councils, we talk with Planet Ark and there are some other institutions and organisations dealing with this sort of waste. From what we are told, in the household—they call it a B2C. They are the kerbside bins to collect all this composting green waste for the composting purpose or the other recycling bin for the recycle purpose. But for the medical waste, so far in the hospital, rarely is there a composting bin there. They might be collecting some food waste. There is even a machine that can compost food waste on site but a very minimal amount and only more or less available for the big hospitals that have bigger containers and hospital beds. But we heard different opinions. A lot of staff ask us how to dispose of our products. Sometimes we tell them the first choice is always composting, but when they check with the waste management company, they say, "We cannot provide a composting bin to you." Then we check and ask them, "Why can you not?" They say, "Okay, because a composting site cannot accept the medical waste", even though it is compostable.

There are two arguments. One is they never received it before, and they are the economic reasons because each hospital's waste is not big compared with the big shopping centres, compared with McDonald's. But another point is it is pretty difficult to deal with in COVID. A lot of products, any waste, out of a hospital, people are very careful—"I don't want to bring troubles to my area, to my composting site." If any rubbish, waste from medical, is infectious and affected people, then there will be a problem. That is why we are thinking there is a need for the

Government to step in to really—maybe you can do a pilot trial and select a few big hospitals and also select a few big waste management companies and a composting site. We talk with composting sites; they say, "Oh, you talk with the waste management company", and the waste management company says, "You talk with them; you talk with the councils." So we are just in the middle.

The CHAIR: Where is medical waste taken now to be dealt with? The big bags of everybody's disposable gowns, gloves and everything in the big bins, where do they go at the moment?

Mr LIU: Here is the image that my clinical consultant, who is working as a nurse in a hospital, in a theatre, sent to me. This is an image of, they call it biowaste, which is in the yellow bag, which has been contaminated by the blood or these sorts of things. That sort of waste actually normally would be incinerated or be burnt. They create CO_2. So that is why our products sometimes will be burnt actually, not composted. They will be burnt, and then the argument is we create less CO_2 emissions compared with conventional plastic. That is one point. The other part, in terms of PPE products, I do not want to simply say they end up in landfill, but you can check it out with a lot of waste management companies. I truly believe the majority of them end up in the landfill.

The Hon. BEN FRANKLIN: Can I jump in quickly? What is currently best practice when it comes to the management of medical plastic waste?

Mr LIU: There is no clear policy or guidance. Every hospital is different. If you go into some hospitals—that is why in my opening statement I said I am always inspired by doctors and nurses. When I was in Princess Alexandra Hospital in Queensland, the nurse actually set up the collection bin by themselves. Some PVC products—they actually create a small bin, put all the things in, and talk with the sales rep, "Can you collect them back? Can you take them back, and your guys can— In the end I think Baxter worked with the PVC council in Australia and the two actually started to recycle PVC products. Without the nurse initiative, these things will not happen. There is no clear policy.

And then each hospital cover different ways. Some big hospitals have space. They might allow the suppliers, they might allow the waste management company to put actual bins over there for collection. But at some smaller hospitals space is a real problem, so they will not have anything. Some nurses actually put our products inside a carton to ask us, "Can you collect it back?" I say, "I can", but the problem is for us to collect, business-wise it is not economical. Secondly, how do we collect the bag? That is why we are even thinking of investing to build a composting machine by ourselves to put it in a site to compost this. That is the whole thing we are trying to work out because right now there are no clear policies and mandate to do things in clear guidance.

The Hon. MARK BUTTIGIEG: Can I follow up on that point? Just on that, Mr Liu, have there been any representations made to government agencies about getting direction, because you would think in an industry with such a high turnover of disposable plastics there would have been conversations about this? Have there been any representations for guidance?

Mr LIU: At least from my knowledge, no, but in saying that there are a lot of associations, peak bodies, talking, I believe, at a government level, but so far we have not seen any clear guidance. The only positive thing we are seeing, actually, when we were attending the South Australian Government's tenders, on the tender documents they state clearly: Right now you can tender plastic products, but we tell you two years later your product will be phased out; it will be ready for replacement. But how exactly they are going to adopt the plant-based material and the bioplastic things, we do not know.

The CHAIR: Mr Williams, I will jump in with a question around the infrastructure that is available at the moment to collect the compostable bioplastics, if you like. What infrastructure exists at the moment to capture any of those that make their way through just the standard collection system that councils have got, kind of kerbside collection systems? Is there anything there?

Mr WILLIAMS: I think the answer to your question is that largely today the market for compostable or certified compostable widgets is mainly for source separation of food waste in the house, so your caddy liners or your bin liners or things like that. And today councils more and more are rolling out FOGO. It is certainly not everywhere at the moment but it is becoming more prevalent. I do not have the exact number but I think it is 20 or 24 per cent around Australia, but it is a little skewed because some of those municipalities only have 1,000 people, so you have got to be careful with statistics. It is not widely available, but it is there. But largely the market for compostables is for those bags. We are seeing more certified, compostable materials entering the single-use or disposable space. So where you have gotten rid of single-use plastics like cutlery, cups and takeaway containers, you are seeing today substitutions for those single-use items with certified compostable alternatives for things like

Mr Liu has described, like closed loops—food courts, music events, things like that—and then the next progression after that will be more in kerbside as the compostable packaging target comes together by 2025.

Today we do not really have on the market, at least for our membership, anything that is really represented in what will be a compostable package, and by "package" I mean something you might find in your freezer or in your pantry or in your supermarket freezer or whatever. We do not refer to cutlery or takeaway containers as packaging. We are talking about the more problematic packaging that today finds its way into the landfill and perhaps could be a compostable alternative if you can get over some barriers to making that particular package. So our point also in our submission was that compostables are not an alternative for everything. Really, they are probably limited in their applications to where they have either contained food or had contact with food or are being used to divert food from landfill through FOGO or those applications. It is not a case of let us get rid of single-use plastics and make them compostable because it is good. That is not the intention at all.

The CHAIR: Thank you. Just looking at where some of the plant-based bags are marketed—for example, Glad, I am sure you are very aware, has the green, plant-based bags that contain 20 per cent plant-based plastic produced from renewable sugarcane. These are not just for the caddy composts in kitchens. They are also, at the moment, for general kitchen waste. The fact that they have the 20 per cent plant based in there and the rest, I assume, is just regular, conventional plastic—what impact does the 20 per cent have in the overall scheme of that bag? Is it a good thing that 20 per cent is there? What does it do with the overall recycling? Do you understand my question?

Mr WILLIAMS: Sure.

The CHAIR: Once it gets to landfill.

Mr WILLIAMS: When it gets to landfill, it behaves like any other conventional plastic. It is going to sit there for a while. It is not going to go away. It will degrade, as we established earlier, over a long period of time. The addition of bio-based content or plant-based content obviously does not give it the property of compostability or biodegradability. You have simply substituted the fossil-based carbon with a renewable source of carbon from sugars, plants, starch or whatever it might be, but the property of polyethylene remains the property of polyethylene. You have not changed it at all. The fingerprint is exactly the same. Might I also add that not all compostable plastics are renewable based or fully bio based either; there are still quite a lot of compostable plastics that are made through the fossil fuel chain because of economics, because of functionality and because of end-use application. It is quite hard to get a 100 per cent compostable biopolymer that is fully bio based, simply because of functionality.

The Hon. MARK PEARSON: What do you mean by "simply because of functionality"?

Mr WILLIAMS: Sure. If you make, for example, a shopping bag out of a fully, 100 per cent bio-based, particular polymer, it is water soluble. Getting your milk container from the supermarket to your car—you won't make it to your boot. It will fall straight through the bag. So, functionality—you need to balance what it is you want the thing to do.

The Hon. MARK PEARSON: And is there anything that helps speed up the breakdown of the most saturated plastic, in a sense? Is there anything which will help break down more quickly the worst type of plastics that take the longest to break down, without causing more harm to the environment? Is there a catalyst?

Mr WILLIAMS: I am not aware of any alchemy that would allow you to add something that would give the magic property of making the conventional plastic disappear. There are different ways of recycling those things. There is ChemCycling today where you can take the problematic plastic, bring it back to its original monomers and then use those monomers to make more of the plastic, but I have questions over that. If it is a problem at the end of life, why would you want to make it again? It really comes down, sir, to: What is the polymer? What is the application? What is the end of life?

For example—maybe this is a better example—we do not want to replace those water bottles that are sitting in front of you, made from PET, with a compostable polymer, because PET is a particularly robust recycling stream. We do not want to interfere with that. We have a dozen inquiries a week from someone who wants green marketing to say, "I want to make that water bottle compostable because it makes me look good." We tend to reject those applications because it is not achieving material circularity. It is interfering with a robust recycling stream. It brings no benefit to the organic recycler or composter. It is not diverting food waste from landfill. Quite frankly, it is simply greenwashing.

The CHAIR: Where are the big opportunities for more compostable products, then? I am assuming there are a lot more—say, the low-hanging fruit, if you like, Mr Williams.

Mr WILLIAMS: I am not sure that there are low-hanging fruit because if you cannot collect them, then they are no better than the things today that we are trying to get rid of because they are not collected. You have to think about the end of life first. If I could draw you back to the analogy of—let's look in the landfill today. What is the most problematic plastic package and could it be made compostable? "Could it" is something we go through every day. Can it achieve the barrier properties of keeping oxygen in or out, or keeping water in or out? What we do not want to do is create a package that reduces the shelf life of the product, because we are already wasting enough food anyway. All of these packages need to be fit for purpose.

We spend our time looking at the landfill and working back, saying, "Could it be this black PET tray, for example, that has had a ready-to-eat meal in it? Today, because of that food that has been cooked on howsoever, it has rendered that PET tray—it has condemned it to the landfill." You might argue, "It should be recyclable." Yes, it probably should, but the question we would ask of the conventional recycling industry I "If we sent you back all of these black PET trays that are dirty and covered in lasagne from the bins, do you actually want them to recycle?" The answer today is most likely no, so off to landfill they go. I would argue that they are examples of where we are looking to make the most problematic package a compostable alternative, linked to food. It is different to what Mr Liu is talking about; I have no knowledge of the medical space at all. But as soon as it comes to food waste, food diversion and food contact, they are the kind of applications where compostable plastics make sense.

The CHAIR: Just to be clear, because we heard earlier in relation to wrapping certain food products—say, vegetables—with plastic: Does the biodegradable plastic breathe air, if you like, or does it work for wrapping food? Excuse my ignorance for not knowing that.

Mr WILLIAMS: The simple answer is: Yes, it can. However, most garden-variety compostable polymers today—on their own as a monolayer film or the equivalent of your Glad Wrap film, which is a PVC film—have lousy barrier properties. They do not keep things fresh for any longer than—maybe not any less—and not as well as, say, your PVC or polyethylene wrap. That is a good thing simply because if they did not let oxygen in and out then microorganisms would not like to eat them so much and compost them. Again, it is back to function and form. Can I make one quick comment just to get it clear on compostables versus conventionals—just a quick elevator summary?

The CHAIR: Yes, please.

Mr WILLIAMS: There are around 400 million tonnes of conventional plastics produced each year at the moment, growing to over a billion by 2040. By contrast, the capacity for compostable plastics is 1.5 million tonnes. You are talking about 400 million tonnes of polyethylene, polystyrene and all the conventional plastics, and our forecast out to 2026 for compostable alternatives is around 1.5 million. My point is that we are very niche, wanting only to be in the areas where we can divert food waste from landfill in an appropriate way. It is not a wholesale replacement of conventional plastics that perhaps should be recyclable or re-usable. Compostable becomes your next opportunity.

The CHAIR: Yes, thank you. That is a very good, clear point to end with. Mr Liu, I just wanted to check if you had anything further for the Committee. I believe we are out of questions for both witnesses.

Mr LIU: I will just make some recommendations, if I can. I totally understand where Mr Williams is standing on this. I totally agree with that. I think in the medical industry the functionality is also more sophisticated. I think single-use plastic still has a position in the hospital, probably for the infection control purpose. Now, we need to design a scheme to make sure we can really capture and collect it and then re-use it. I think our job is actually to raise the awareness and to educate the market. We start to see some big guys copy our products; it is a good sign, actually. If big guys start to—they have got bigger buying powers. At the end, they might start to boost up the usage and the production of composting plastic compared with conventional plastic. Right now, all of those big guys are comfortable with the margin they make from conventional plastic. That is why they are reluctant to change.

So, we are the ones telling the hospital—the first question that we always ask a hospital is "Does this product have to be plastic?" But, I tell you, this one has to be because it contains 70 per cent alcohol. Normal composting material—for this one, composting plastic cannot last, so leave it plastic but collect it. But for this, the hospital says, "We just hold water. How long can it last—12 hours?" No problem; we achieve 72 hours or 36 hours, so do it. That is the point. That is why it is called innovation, because cross-industry experience is very important. The food industry, because they are the big guys, like McDonalds—super-giants in the market. They have the buying power. If they want to change something—easily, quickly. This one looks like an ice cream cup; actually, it is a denture cup for the hospital.

I am probably to say I am the first one to invent this one, purely because I took my daughter to the shopping centre. At that moment the Queensland Health asked us whether we can produce something which is non-plastic for denture cups. We say okay. We ask them what is the function for denture cup. "Nothing. We just put some water." Then we tell them this does the job. This is a paper coated with BioPBS. I think everyone knows that. It is part of plastic, bioplastic. So it will work, does very well, which is now in NSW Health and pilot stock, and actually every hospital here uses it. So I am saying that the first thing is we need to try to capture the single-use plastic, to either eliminate or recycle it from the source. If anything can be replaced by compostable material at a similar or even lower cost, then do it. Then some big guys will have the bargaining power, will have the technology advantage to really work something, to do some material, to make changes from the beginning.

The CHAIR: Thank you very much for your evidence today. It was very valuable and interesting for the Committee. That is the end of our time for you, though. Thank you very much. We will now call our next witnesses. Thank you, Mr Williams and Mr Liu.

(The witnesses withdrew.)

BROOKE DONNELLY, Chief Executive Officer, Australian Packaging Covenant Organisation, affirmed and examined

PETER BRISBANE, Government Partnership Manager, Australian Packaging Covenant Organisation, affirmed and examined

The CHAIR: Thank you very much. Do you have an opening statement to make for the Committee?

Ms DONNELLY: I do. Thank you for the invitation today, Chair. As outlined in our submission, the Australian Packaging Covenant Organisation [APCO] is accountable to the Commonwealth and all State and Territory environment Ministers for delivery of a substantial body of work to support the transition to a circular economy for packaging in Australia—an achievement of the 2025 National Packaging Targets. To deliver this work, we have implemented a collective impact framework, described in *Our Packaging Future*, which was published in 2020 and is referred to in our submission. This collective impact framework recognises that packaging sustainability can only be achieved through the coordinated action and collaboration by all stages of the supply chain and with the support from government.

Along with the 2025 Monitoring Program, which is also referred to in our submission, *Our Packaging Future* sets out a series of strategies and strategic intervention points to achieve the three outcomes needed to deliver packaging sustainability. These include packaging that is designed for circularity, improved collection and recycling systems, and expanded markets for used packaging. APCO's role within this system is as the backbone organisation, to coordinate and inform and drive action. We work with over 1,500 signatories to the Australian Packaging Covenant, both to improve the performance of each company and to drive better outcomes through collaboration within the sector and across the supply chain. The role of government is crucial. APCO strongly supports the role of governments in setting priorities and driving action within their jurisdictions, including through the regulatory funding and other approaches.

With regard to the Waste Avoidance and Resource Recovery Amendment (Plastics Reduction) Bill, we welcome the interest of the Committee in fostering discussion between the Parliament and stakeholder community and driving change on plastic waste. APCO encourages the Committee to consider opportunities to leverage and support existing programs and processes. Nationally, the legislation underpinning the Australian Packaging Covenant is being reviewed. APCO supports the strengthening of this approach. Within New South Wales we have welcomed the Government's development of the 20-Year Waste Strategy and Plastics Plan and anticipate these addressing many of these issues that we hope to discuss today. So thank you for inviting us along.

The CHAIR: Thank you very much. I might just kick off with questions. You just mentioned the 20-Year Waste Strategy and urging the Committee to work within existing programs. I assume you have had quite a few detailed discussions with the State Government around that waste strategy.

Ms DONNELLY: Absolutely. We worked quite closely with them on that. Our work in terms of the packaging space, especially in terms of the consumption and the resource recovery and the performance of that system, has helped to inform some of that work as well.

The CHAIR: There will be targets, I am assuming, within that in terms of targets for recycled packaging, targets for recyclable packaging and what have you.

Ms DONNELLY: Absolutely.

The CHAIR: Is it your understanding that there will be legislation to urge producers, to urge companies—actual legislation as well? Mandated targets, I should say.

Ms DONNELLY: I am not aware of what legislation will be involved. But I know that we have had lengthy discussions around targets and the approach and really looking to support that transition for that circular economy approach.

The CHAIR: What is APCO's position on mandated targets within a bill such as this one before us—or the Government might bring one—for recycled packaging versus working with industry on a voluntary basis?

Ms DONNELLY: It is important to note that we are a co-regulatory agency. We are not an industry association. So we do not work for industry. Our job is to actually make this piece of work happen and come to life between government and industry. So we do not take a policy position. We are the administrators of the Australian Packaging Covenant. Whatever that regulation is and whatever regulation is at play at that particular point in time, we will administer. If this Committee and the New South Wales Government should make a decision

to mandate targets, we would support that work and we would deliver on that. If they take a different tack, we would also support that. Our job is to actually make the policy intent come to life and to work with industry and government to achieve those outcomes.

The Hon. BEN FRANKLIN: How are we going in terms of the 2025 National Packaging Targets? Do you think they will be met?

Ms DONNELLY: I definitely think they will be met.

The Hon. BEN FRANKLIN: All of them?

Ms DONNELLY: Yes, all of them. They are the right balance of ambition and achievement. We have seen progress—consistent and steady progress—over the last couple of years since the implementation of the targets in 2018. So we have every confidence that they will be delivered.

The CHAIR: We have got the target here, just to be clear. We did have some stakeholders earlier today—Boomerang Alliance, for example—that did not think that the targets would be met. So I just wanted to explore that a little bit. We have got the 2025 targets: 70 per cent of plastic packaging recycled or composted. At the moment is it correct to say that 18 per cent of plastic packaging was recycled or composted in 2018-19?

The Hon. BEN FRANKLIN: That is the one that seems to jump out.

Ms DONNELLY: That is the most challenging target that we have and the most ambitious. There are four national packaging targets. The most significant in terms of achievement and requiring the most focus is the plastic recovery target, which is at 70 per cent and currently operating at 18 per cent. So we have seen a slow and steady improvement in the last couple of years, but it by far is our greatest challenge and the one that we are focused on. Only a week ago we supported the implementation and the launch of the ANZPAC Plastics Pact, which is a piece of work and a program to actually support the acceleration of the plastic packaging space. We should not take a step back from the sight of the challenge. It is very significant and it is achievable, but it does need that coordinated approach of government and industry together to achieve the ambitious target of 70 per cent.

The CHAIR: Just to explore that a bit further, you said that you definitely will achieve the target, so what can you see happening that will enable that 70 per cent target of recycled and compostable to be met? Does it have to be legislation to mandate that products are recycled?

Ms DONNELLY: I think it needs to be a combination of interventions. This is the really interesting part of this work. We are seeing traction coming from industry leading out, but when you are talking about this particular target you are actually talking about material that is simply not being recovered. One of the things that drives that is the lack of value in those materials. One of the key things if you want to drive that activity—if you look at the overall system, in the centre here is the collection and the recovery of material and that is actually the lowest performing area within that system. That happens because they are simply not the commercial outcomes that make those materials valuable. If you create, at the back end of the system, a home for these materials that have a value, then what that does is it naturally draws that system and you start a race to the top because you have created a valuable material and so commercially it makes sense. You are not going to put something into landfill that actually has a more commercial outcome at the back end of the market. That is the challenge that we have got now in terms of the market—finding the right balance.

To your question, it has to be a combination of things. It needs to be the marketplace and it needs to be some regulation and we are starting to see that in terms of the single-use plastic phase-out work that is happening at State and Territory level across Australia. We are seeing that in Queensland, in South Australia and also the Australian Capital Territory. What this has shown is sometimes those regulatory interventions are helpful in terms of, if you like, tidying up the ends of things to actually make it all come together. We want to drive as much activity as we can in the co-regulatory space to actually make the system as efficient and effective as we can, especially from an economic viewpoint, and then there is a really valid conversation to have about what are the regulatory interventions that tidy up the back end of that system.

The Hon. MARK PEARSON: I am just wondering how imports fit into all of this. Are you taking into account the packaging of imports and is there any sort of agreement between other countries about this project?

Ms DONNELLY: The imported packaging—if you are talking about overall packaging, not just specifically plastic, I do not have the plastic number to hand. But for overall packaging, it is roughly in alignment, 40 per cent of it is imported. So 60 per cent is manufactured here in Australia of overall packaging and 40 per cent is imported. That is one of the challenging spaces in terms of how do you manage that activity. The way that we approach it in the work that we do is we actually use marketplace levers to push back up. We do a lot of work

with industry for them to set the standards through guidelines like the Sustainable Packaging Guidelines, which they then provide back to their suppliers.

We have to remember that if you are buying packaging in this country, you are the customer and you set the terms of what your business is with that packaging supplier. That is actually a good lever in terms of actually setting what is acceptable and not acceptable in terms of the imported packaging that is coming in here. There has been a lot of conversation over the years around if there is some kind of regulatory intervention. It tends to get quite complicated because you usually talk at a Federal level; you are usually talking free trade agreements. It is a very difficult space for regulatory interventions and we found the most traction that we have got has been to actually address it through the marketplace mechanisms of setting the standards of what is acceptable in contracts and agreements with organisations who are purchasing imported material.

The Hon. SHAYNE MALLARD: Good afternoon and welcome along. You may have heard me mention earlier that I did some consulting for the packaging covenant 20 years ago.

Ms DONNELLY: That is a while back!

The Hon. SHAYNE MALLARD: I know. I just texted Michael Yabsley, who I worked with in that, to say, "Look what has come back to haunt me." What was interesting was we were working on the basis that bans and legislation were inevitably coming and it was better for the industry—not the packaging industry alone. We are talking about people who use a lot of packaging to get their house in order. We found a lot of resistance, I have got to say, 20 years ago. I see that you were established in 2016 and you said before you are a co-regulator. Has it been a structural change and has that engaged the sector much more strongly into it?

Ms DONNELLY: Yes. There was a very significant change in 2017 with the introduction of the current Australian Packaging Covenant. That was in recognition that the Australian Packaging Covenant was failing to deliver on its promise of 20 years ago.

The Hon. SHAYNE MALLARD: It was voluntary.

Ms DONNELLY: Yes. There were significant changes made in terms of the governance of the organisation and also the approach. The approach at your point in time would have been primarily about litter prevention—

The Hon. SHAYNE MALLARD: That is right.

Ms DONNELLY: —whereas in 2017 a very clear objective was designed which was about the transition to a circular economy for packaging in Australia, which is a massive mandate and a very different piece of work to what the covenant was originally intended for, which was to address litter issues. So having moved—obviously, one would hope after nearly 20 years—past what was relevant 20 years ago, it also needed to be delivered in a way that ensured that it was a co-regulatory agency that was actually delivering for government and industry and not getting caught up in political issues or industry issues as well. So it is very much an agnostic, apolitical organisation that is here to actually support the transition for the system and to work effectively with government and industry.

It was a very significant change even in terms of the representation of the board. There is an equal representation between independent directors, industry associations and industry representatives and that is to bring the balance into the governance of the organisation and make sure that it is delivering on its objectives. So it was a very significant change. At that time the signatories to the covenant had stagnated and it was around approximately 840 signatories or members of the covenant. Today we have close to 1,550 four years later, and that is because we actively seek out to ensure and hold to account organisations who are not or have been resistant to participating in covenant activities to date.

The Hon. SHAYNE MALLARD: I congratulate you for that. We did the Do The Right Thing campaign. Remember the jingoistic campaign? So when I saw you were coming I thought you would be concerned that this proposed legislation would almost make you redundant, but your evidence already in your submission is that you welcome it and it would be part of the toolset for you.

Ms DONNELLY: Absolutely. The Australian Packaging Covenant delivers the Australasian Recycling Label, which is a national label consumer education program that informs industry and government. The work of the covenant is a lot more comprehensive than it was traditionally. It is actually delivering in such a way that a co-regulatory agency should and that is not about having a political opinion or a position on policy; it is about taking the system that is available to us and effectively and efficiently trying to deliver on that circular economy. There are some things that work well and there are some things that could work better. We mentioned in the

submission that there is currently a review of the National Environment Protection Measure and that is something that we would direct the Committee to have a look at because there are some things in the system, like any 20-year-old system, that need to be addressed and need to be updated to enable the equity in the product stewardship model that is essential to really driving the impact and the environmental outcomes that we are looking for.

The Hon. SHAYNE MALLARD: Thank you for that and congratulations on the work you do.

The CHAIR: I have a question exploring the mandatory aspect of it, if you like. Your submission states that New South Wales has a mandatory 80 per cent recycling target for plastic packaging applicable to companies in the packaging supply chain that are not members of APCO. If they do not sign up to the covenant they are subject to a mandatory 80 per cent recycling target for plastic packaging. If they become members of APCO what targets are they subject to?

Ms DONNELLY: The National Packaging Targets. The whole series of the National Packaging Targets that we were discussing earlier on is the framework. The difference between the two options, one is you are fully supported as a signatory to the covenant, you have access to the tools and resources, hundreds of them, that are available to support your work for the transition. If you choose to comply with the National Environment Protection Measure [NEPM] or the covenant at a State or Territory level, then you are required to report in various ways back to government. To my knowledge there are several organisations that claim to do that, but none that actually do that. It is one of the things, if you are looking at something in the NEPM that we have flagged as an issue in terms of compliance and the enforcement of it, after 20 years not actually complying with this regulation is one of the issues in the equity that needs to be brought into the regulation more strongly moving forward, to make sure that the recalcitrant ones who are resistant are actually stepping up and being held to account as are those who have been doing the work for 20 years now.

The CHAIR: What percentage of companies choose to go down the path where they are subjected to what I understand is part 8 of the Protection of the Environment Operations Act where the regulation establishes two packaging targets for companies that choose to be regulated, then they are subject to civil penalties if they do not comply? How many companies choose that over the covenant?

Ms DONNELLY: Very few, because there is no support for you. There is no form to fill in, there is no department that does that work in any government in Australia, so you are very much on your own. The reality is that to be supported in this work to make that transition you work with the Australian Packaging Covenant Organisation to actually administer that work. There is a list available of current organisations that we have approached and we know have an obligation in this space and have chosen to report to government directly. There is a list available on our website that lists those organisations. Our job at that stage is to refer those organisations on to the State or Territory government in which they are headquartered and for that government to then take whatever interventions, enforcement it is able to do at a State or Territory level.

The CHAIR: How many companies exactly, do you know?

Ms DONNELLY: Are on that list?

The CHAIR: Yes, going through the regulatory New South Wales Environment Protection Agency—

Ms DONNELLY: I think that list has about 38 organisations on it, and we are about to go through what is referred to as a brand audit process. We have identified other organisations that we believe have a liability and have an obligation to work under the NEPM and we will be speaking with them over the next couple of months. After that there will be some of those that are exempt because they are, say, under a $5 million revenue. There are a couple of exemption reasons there. We will work through that with them. There are those that will sign up to the covenant and then we will advise the various governments across Australia as to which ones have chosen to report to them directly and which ones have chosen to meet their obligations through working with APCO.

The CHAIR: What data collection and reporting mechanisms are currently used to track recycled packaging to ensure that companies are meeting the targets that have been set? Is it all self-reporting, if you like?

Ms DONNELLY: No. As we mentioned in the submission, last year we released the 2025 monitoring program. That is actually a framework of monitoring to ensure progress is watched over the period out to 2025. What is really important at this stage is we set a target. We are starting to see progress towards it. We need to make sure we stay on track. To be able to do that we have to identify key performance indicators that are actually driving that action. There is a range of key performance indicators. Then there are seven strategic intervention points. These are what you would think of as being the really critical things that you have got to get right to make

the transition work. That is a big part of that work in terms of identifying those seven strategic intervention points and then making sure progress is happening towards it.

That is monitored in a couple of different ways. That framework came out last year. We will report on it, probably around October-November this year in a public report. But we also have a series of other reports. There is a consumption and resource recovery report that comes out every year and that shows the performance of the system itself. There is also quarterly reporting that we do—I will give you another acronym—the GOG, which is the Government Officials Group. That is represented by all States and Territories in Australia that works directly with APCO on the delivery of the work and the framework that we have. We actually report to them every quarter. There is a quarterly report that goes to that group as well. That is every State and Territory, and Federal Government is represented in that group too. There are various levels of reporting. There is also an annual report that comes out from APCO which talks about all of this work in that context too. There are several reporting mechanisms.

The CHAIR: I think that is all from me.

The Hon. MARK PEARSON: Out of interest, has any company that produces a product taken any interest in promoting its product because it is endorsing a recycled packaging program?

Ms DONNELLY: Absolutely. It is a very key part of the work that we do. The key part of being a co-regulatory agency, if you do not have a mandatory situation then it is very much about the business case and the value proposition. To give an indication, there are two mechanisms in which you can become a member of APCO. One is you go through the brand audit process that I mentioned before, which is a compliance element. You have an obligation. You have to step up and do it. But the value proposition is so strong around sustainable packaging right now in the current marketplace that in the last, not even 12 months, since July, this financial year alone over 135 organisations have signed up to work with APCO purely from a voluntary perspective to be involved in work like the Australasian Recycling Label, the National Packaging Targets, and ANZPAC Plastics Pact. The launch for the ANZPAC Plastics Pact last week, there are 74 organisations that are meeting targets that are greater than the National Packaging Targets and accelerating the ambition beyond even what you are doing as a basic APCO member. So there is a very, very strong value proposition and brand benefit for organisations to be involved in this work and to have the transparency that is available through the coordinated effort of something like the framework.

The Hon. MARK PEARSON: Are you aware that Amazon might be using that as part of its promotion as well?

Ms DONNELLY: I have a conversation coming up with Amazon, so it is on a particular list.

The Hon. SHAYNE MALLARD: Following up on that line, is that being driven by consumer behaviour, or shareholder expectation, or quadruple bottom line reporting?

Ms DONNELLY: It is a combination of things. We had very much a perfect storm in 2017 with the *War on Waste* and consumers asking questions that they had not asked before. We also had the China sword impact. We have an incredible amount of pressure coming back from the investor community around—this is where environmental, social and governance [ESG] reporting is becoming so relevant.

The Hon. SHAYNE MALLARD: What is that acronym, ESG?

Ms DONNELLY: That is where you are reporting on the environmental indicators at a corporate level, a range of environmental indicators: for example, banks not investing in organisations that are still embedded in coal.

The Hon. SHAYNE MALLARD: That is called ESG?

Ms DONNELLY: Yes. And so we see that trend coming towards the waste and recycling industry as well. I was with some stakeholders in that space a couple of weeks ago and one of their concerns is that they recognise that they are on that pathway of also being measured on their ESG metrics and investors simply not investing if their work is not actually circular in its approach. There is a whole range of elements that come into play that is driving that uptake in that engagement in sustainable packaging.

The CHAIR: You have the target of 100 per cent of packaging to be re-usable, recyclable or compostable and 89 per cent of packaging put on the market in 2018-19 was recyclable, re-usable or compostable. We have heard from stakeholders today that really it is the recyclable—the plastic packaging—that is potentially quite an easy thing to put on labels to say that they are recyclable. But a lot of it does not get recycled, hence the

18 per cent of plastic packaging. Is there any move by APCO to look at improving that recyclable claim to ensure that more of it is recycled?

Ms DONNELLY: Yes. So there is a gap in the system between what is able to be recycled. And to be clear this is not technically recyclable. I mean if you were talking about something like e-waste as an example, technically recyclable would be if I took the lid off the top of that laptop but nobody is going to buy that that is actually a recycled laptop. So what is recyclable and what is recycled are two entirely different things. I mentioned earlier on the Australasian recycling label and this is a really important program because what it has done is drawn in and made very clear what is classified as recyclable. We are not just looking to say, "Can you technically recycle?" as that also includes, "Can it be collected?" Does 80 per cent of the community have access to be able to drop something off somewhere or have it collected in kerbside. If you do not have access to a collection system then you cannot recycle it even if it can be technically recycled. This is a really important part of the work. It cannot just be about what is technically recyclable; it is also about what can be collected and recovered in the system.

That is why it has been very important to clearly call out these materials that are able to be recycled. And this is what I was mentioning before about the low value of these materials. We should not be afraid to recognise that there is a commercial marketplace decision to not recycle these materials. To not collect them, to not recycle them and to send them to landfill is because there is not the economic or the commercial outcome at the back end that they are looking for. That is why if we can get more material into recycled content, more recycled content into applications then that material has a higher value; therefore it makes it commercially more attractive to actually recycle it properly. We could have a 100 per cent recyclable target but unless there is value in that material and it is actually being collected and recovered appropriately and there is a commercial outcome to it, it is going to be a struggle to make that happen. That is the challenge in the system about actually getting the recycled content into materials and applications that will have a value.

The CHAIR: This is my last question. What are some of the ways in which that value can be created? Do you have any recommendations there?

Ms DONNELLY: Yes. So some of the ways in which that value can be—some of the barriers in that end-market application include overcoming some of the standards. Some of you may be familiar with and have seen some of the plastic waste material going into roads and things like that. One of the challenges is actually getting the procurement guidelines right, to get the standards right, to get it accepted into these material applications. That is one of the really obvious things that we need. Some of the work that my colleague and I have done and our team has done around working with procurement is about how do you actually identify materials that could have recycled content in them. That is a really important part of the work. Also there is a lively discussion now around mandatory targets and whether making a mandatory target for recycled content would drive some of that as well.

We are doing some work around the economics of that this year to understand how much of an intervention that can be. I do not think it is an either/or situation; I think it is a combination of those things. We have to get better at identifying the opportunities to procure recycled materials. We also have to get them to be accepted. So we have to get the standards, we have to get it through departments and government departments that will actually buy these materials and use them. We need to do more work to understand what will be. Would a mandated recycled content target drive significant uptake? I think all of those things need to be considered when you are looking at what is actually going to drive the value in those end markets.

The Hon. MARK BUTTIGIEG: I have a quick follow-up question. If we use the superficial analogy of the renewable energy market where fossil fuels become tainted and therefore companies organically move towards renewables as it is not good business sense' it is not good social responsibility or business sense to go down that path. On the current trajectory I think what you are saying is that there is not enough impetus on the regulatory side to push us further down that path that we need to go to make it happen. Unless it is an economic value proposition there is still a lot of inertia to change there. You have to start mandating otherwise the market will not invest in the technology necessary to make recyclables cheaper and you are stuck to a certain extent.

Ms DONNELLY: It is something that the Committee should consider in terms of how and what is the right intervention plan. Product stewardship in itself—the model product stewardship—has different levels and levers in it because you want to try to get as much in that space of the collective and the collaborative effort because it is economical. Obviously once you start regulating there is a very significant cost to the community to do that. So you want to make sure it is a little bit like the single-use plastic work. We got a lot of traction and a lot of work done and then at the back end of that we are now seeing regulation being applied to very specific applications and very specific uses and that is helpful. That is driving those little recalcitrant areas which were

resistant to stepping up. Those are the kinds of things. It is not a blanket solution and I do not think that would be the best approach but a targeted intervention certainly would add some value.

The CHAIR: One last question from me. We had witnesses from local councils earlier today. The Southern Sydney Regional Organisation of Councils spoke about the need to update the definition of "waste" in the Protection of the Environment Operations Act because at the moment there is a need to clearly distinguish between "waste" and "resources" because waste is treated very differently in how it is disposed and everything else. There are a lot of different regulatory barriers to jump through to use what becomes resources. Do you agree with the need to do that?

Ms DONNELLY: I think the general narrative has shifted in the past several years around really clearly being quite distinct between what is a waste material and what is a resource. It is an important conversation to have because those resources can keep moving through that circular system and that is what we are trying to achieve here. It is important to do that. It is important that there are mechanisms. We drew the attention again to the NEPM review in the context that these are some of the things that we are looking at. Some of the definitions in there have to be updated to address issues like you have mentioned here. But also some of the reporting requirements—you mentioned local government—there have been reporting requirements on local government for 20 years that have not come to light either. A whole bunch of interventions are still at play in the current framework that need to be tested. When having these conversations it is really important to say, "Have we already got the lever that we need, how do we get that lever to be active and how do we use that in a way that is going to be effective for the overall system?"

The CHAIR: Thank you; that was very useful information. That is the end of our questions for you this afternoon. Thank you for your submission and for appearing today.

(The witnesses withdrew.)

The Committee adjourned at 16:49.