



TRANSPORT AND RESOURCES COMMITTEE

Members present:

Mr SR King MP—Chair)
Mr CE Boyce MP
Mr LL Millar MP
Ms JC Pugh MP
Mr LA Walker MP
Mr TJ Watts MP

Staff present:

Ms D Jeffrey—Committee Secretary
Mr Z Dadic—Assistant Committee Secretary

PUBLIC BRIEFING—DEPARTMENT OF TRANSPORT AND MAIN ROADS

TRANSCRIPT OF PROCEEDINGS

MONDAY, 8 MARCH 2021

Brisbane

MONDAY, 8 MARCH 2021

The committee met at 9.18 am.

CHAIR: Good morning. I declare open this public briefing with the Director-General of the Department of Transport and Main Roads. I respectfully acknowledge the traditional owners of the land on which we meet today and pay my respects to elders past and present. We are very fortunate to live in a country with two of the oldest continuing cultures in Aboriginal and Torres Strait Islander people, whose lands, winds and waters we all share. My name is Shane King, member for Kurwongbah and chair of this committee. With me here today are: Lachlan Millar MP, member for Gregory and deputy chair; Colin Boyce MP, member for Callide; Jess Pugh MP, member for Mount Ommaney—with her little friend; Les Walker MP, member for Mundingburra; and Trevor Watts MP, member for Toowoomba North.

The purpose of today's briefing is for the committee to receive a general briefing from the Director-General of the Department of Transport and Main Roads and to consider the department's 2019-20 annual report. The committee's proceedings are proceedings of the Queensland parliament and are subject to the standing rules and orders of the parliament. As parliamentary proceedings, under the standing orders any person may be excluded from the hearing at the discretion of the chair or by order of the committee. The committee will not require evidence to be given under oath, but I remind witnesses that intentionally misleading the committee is a serious offence. You have been previously provided with a copy of instructions to witnesses, so we will take those as read.

The proceedings are being recorded by Hansard and broadcast live on the parliament's website. Witnesses will be provided with a copy of the transcript. Media may be present—not at the moment, but they may be—and will be subject to the chair's discretion at all times. Media rules endorsed by the committee are available from committee staff if required. All those present today should note that it is possible you might be filmed or photographed during the proceedings by media and that images may also appear on the parliament's website or social media pages. I ask everyone present to turn mobile phones to silent or turn them off.

I remind committee members that officials are here to provide factual or technical information and any questions seeking an opinion about policy should be directed to the minister or left to debate on the floor of the House. I also ask that responses to any questions taken on notice today are provided to the committee by 4 pm on Monday, 15 March 2021.

SCALES, Mr Neil, Director-General, Department of Transport and Main Roads

CHAIR: Welcome. Would you like to make an opening statement, after which we will have some questions?

Mr Scales: Thank you, Chair. I also acknowledge the traditional owners of the land that we are gathering upon today and pay my respects to elders past, present and emerging. Happy International Women's Day to you all. I thought it important to turn up at this meeting not just to answer the committee's questions on the annual report but also to give a bit of an overview of what we in the department have been doing to meet the challenge of COVID-19. On COVID-19, although we now have three active vaccines in the field, to quote Churchill, 'It is not even the beginning of the end. But it is, perhaps, the end of the beginning.' We will, in my view anyway, not go back to life pre COVID.

The department's been incredibly busy over the past year, as the committee would have seen during the estimates process. I look forward to the estimates process again after the budget to further update this committee on what we are doing. I thought it would be important to turn up and just let you know what we are doing with the department. The department, as we all know, is a \$9.8 billion business with over 9,000 employees, 70 different work groups—from marine officers to customer service staff to engineers to admin staff—in 100 locations across the state.

The department has done really well in just keeping going. We have not stopped a single construction site. We are about \$200 million ahead on our budget. All 91 customer service centres have been fully open all the way through COVID-19. Our Marine Safety Queensland branch has done an enormous amount of what I believe is good work protecting our 21 ports. The work that we did almost a year ago now to protect not just the ports but also the sailors on the ships was followed by New South Wales, Victoria, then latterly Western Australia. We did some groundbreaking work there.

We have operated a full bus, rail, ferry and tram service for essential workers all the way through this. Although we had an 80 per cent drop in patronage, I am pleased to report that it is about 30 per cent from where it was pre COVID. That work has also provided employment for about 12,000 direct employees and about 6,000 or 7,000 indirect employees while we have been going through COVID-19. At one point, 44 per cent of our staff were working from home. Before we did that, we made sure that the home working environment was absolutely right ergonomically and also that people could connect to our systems. We have wound that back now to about 16 per cent of our staff working from home two days a week. It has had some surprising results, one of which is that sickness has dropped by about nine per cent. Two of the things I am keeping a very close eye on are the mental health of our staff but also domestic violence, because people working from home could be a trigger for that. We all know that when we come to work there is a start point and then an end point. If you are working from home there is a start point but not necessarily an end point. We are just making sure that, moving forward, we are keeping a very good eye on our staff. I welcome questions from the committee on anything relating to what we in the department are trying to do.

CHAIR: Thank you for that. You will know from past committee hearings that the taxi industry is an important issue for me. I refer to wheelchair accessible funding. Could you give us an update on that program?

Mr Scales: We have provided grants for wheelchair accessible taxis. The taxi industry in Australia has been doing it tough for a while, not just because of what has happened with rideshare but also because of the dearth of international passengers. One of the big hopes for taxi operators—whether or not they have wheelchair access—was our international airport, which was really hammered by COVID-19. It is coming back slowly. We are about to meet the taxi industry on a three-or-four-times-a-year basis to see how we can actually help.

The grants are available. I am not sure of the take-up as we sit today, but the grants are available for wheelchair accessible taxis. We did encourage that a lot pre COVID. For the committee's benefit, the previous disability commissioner for Queensland, Kevin Cocks, is now my executive general manager for disability matters. We are looking at disability in all its forms and working not just in concert with the stakeholder groups in Queensland but also in concert with the feds to see if we can reset the access requirements not just for vehicles but also for physical infrastructure.

In Queensland at the moment, of the 146 stations we have on the rail network about one-third are accessible. If you look at the tram network, though, that is fully accessible. It is low floor, level boarding. The width of platform gaps is three inches, or 75 millimetres. Where we have been able to get in right at the start and design it from scratch, we have a much better opportunity. Accessible taxis are a key part of that. As you said, we do have the grants out there. We are encouraging the taxi industry to take them up, but the taxi industry was really doing it tough for certainly the past year and a bit before that.

CHAIR: It would be up to the taxi industry itself to advertise that those grants are there? We advertise them to try and increase the take-up.

Mr Scales: Minister Bailey has been out in the press on that. Certainly we have met the Taxi Council Queensland advocate Blair Davies on a regular basis. We have set up a series of meetings—the first one has not happened yet—with the industry just to say, 'This is the journey we have been on with COVID-19. These are the stimulus measures the state government has put in. What is the next step?' I have never seen a rideshare vehicle that is fully accessible, so it is important to us. Bear in mind that the strapline for the Department of Transport and Main Roads is to create a single integrated transport network that is accessible to everyone. That sounds really easy but it is not. I have been trying to do it for nine years while I have been here. We are making progress in some areas. If you take the bus fleet, particularly in the centre, that is fully accessible. You can get wheelchair access. There is wheelchair access on the train network and the tram network, and our colleagues in BCC are working hard on the ferries to make them accessible as well. There is a whole raft of information going forward.

Mr MILLAR: I refer to workforce statistics as at 30 June 2020. The percentage of employees located outside South-East Queensland has dropped from 38 per cent in 2013-14 to 31 per cent in 2019-20. Why is that?

Mr Scales: I am not aware that it has dropped that far. I will probably have to take that one on notice. That might be at that snapshot in time, because we have 2,000-plus school crossing supervisors who come in obviously for schools then go out again. We have maintained the same staff numbers—there or thereabouts—for the last nine years while I have been at the helm. I shall get a

very exact answer for you. My view is that, of the 100 locations across the state, the staff numbers for the ones outside of South-East Queensland—if you take areas such as Cloncurry, which I visited last week, Cairns, Townsville or Rockhampton—are pretty much as they have been since 2013.

CHAIR: I want to make sure that the question we are placing on notice regards staffing numbers outside the south-east.

Mr Scales: No worries.

Mr MILLAR: That is reflected in table 5 on workforce statistics as at 30 June 2020. That is what I want to refer to. Continuing with the workforce statistics, we have seen an increase in temporary positions—that is, regarding employee head count—from four per cent in 2013-14 to eight per cent. It has almost doubled.

Mr Scales: The reason largely for that, Deputy Chair, is the QTRIP program. We bring people in to do QTRIP work, they do the work and they go out again. It is not actually efficient to have engineers, surveyors and that sort of thing to do our QTRIP program. I am pleased to announce that over the past three years we delivered probably about \$1 billion more than we said we would over those three years. We have met and exceeded our program for the past three years. This year we are about \$200 million ahead. The temporary staff we bring in are for that. The other reasons to bring them in are in the event of a tropical cyclone or a flood. It is not so much bushfires up here, but we bring on temporary staff, certainly in the RoadTek area, to deal with that peak and then they go out again. We use that as a flexible resource.

There are two issues. One is the capital expenditure side, on which we have done really well. The other bit is in the event of a tropical cyclone. Think about the monsoon, where we had something like two metres of rain in eight days. We do not have the staff on tap all the time so we bring them in and they go out again.

Mr BOYCE: Some time ago the Auditor-General identified a \$9 billion projected shortfall to road maintenance funding throughout the road network, bridge and culvert refurbishment was operating at 20 per cent of its budget need and road resheeting was at 16 per cent of its budget need. Could you give us an overview on what is happening in regard to addressing that problem?

Mr Scales: I will probably return to this at estimates later on in the year. We are doing a number of things. First, I am pleased to report that the maintenance budget is now over \$1 billion a year. It is \$4.4 billion over the next four years. That is the first thing.

Secondly, we have a vehicle called iPAVE that runs over our 33,000 kilometres of road on a continuous basis. It is a really smart piece of technology because it operates at road speed, so you do not have to close roads to examine them. We are being much smarter on where we spend our maintenance dollars. On the alleged shortfall that the QAO report came up with, as an engineer and as a maintenance engineer you never have enough dollars in the bucket to do everything that you want to do all the time. I can assure the committee and anybody who is watching that the road network is safe.

On bridges and culverts, we have 3,108 major bridges. A lot of those were built, as members would be aware, a long time ago. We are gradually getting around to replacing those or strengthening them. A really good example is timber bridges that were set up some 50 or 60 years ago and that we have gradually taken out. If you say that is a maintenance backlog it is, but we will get around to it eventually. That is the second part. The first part is that we have the budget. The second part is that we have the iPAVE machine, which has a laser array on it that allows you to look not just at surface roughness but also at how things are happening on the road surface.

The third thing is that we have a \$26.9 billion budget for capital, so we are renewing a lot of the roads anyway as part of that. That is another element. The fourth area is technology. With our pavement technology, a good example is something called foam bitumen that we are using a lot of now so that if the road is inundated when the water recedes the pavement is still there. Another project we have is EME2, which is a really high density road surfacing that we are using on the Gateway North upgrade. It produces 25 per cent less greenhouse gases but lasts longer.

There are four things happening: one is that we have the budget, two is that we are continuously monitoring what we are doing, three is the new investment that we are undertaking and four is that we are taking bridges and modifying them as we go. We are continually monitoring the surface. We continue to monitor what we do on those four things. I will probably return to it in more detail should I be asked that question at estimates. We have just done all of the work again because we do it on an annual basis and I will have more up-to-date information.

CHAIR: How many iPAVE machines are there? Obviously they go throughout the state. On this committee we have four regional members who would be very interested to know that they are not just south-east based.

Mr Scales: I think there are only two in Australia. We have one and I think the other is in Victoria or New South Wales, from memory. It operates all the time, continuously. In the state we have 33,353 kilometres of road—there is about 180,000 all up—and 77 councils. We have been adopting a 'one-network' approach since I got here. If you are in a vehicle, you are not really interested in whether it is one of our roads or a council road; you just want the surface to be reasonably smooth, reasonably safe and in good repair. We are working very closely with our 77 councils. I am joint chair with the LGAQ's Greg Hallam. We have 17 regional road and transport groups—and I know I am telling you to suck eggs a bit, because you are all aware of what they are. We give a 50 per cent grant on the TIDS, the Transport Infrastructure Development Scheme, and a lot of that money is spent on our roads, in conjunction with the local authorities. That is happening as well, member for Callide. That is happening off the side.

Mr BOYCE: The federal government committed \$20 million to the replacement of the Peterson Bridge at Mundubbera. Is there any guarantee that that funding from the federal government will remain, given the fact that the government has moved that project out in their forward estimates?

Mr Scales: I think the key point is that I have a very good relationship with our colleagues in the feds. They have been very good to us in terms of budget. Personally, I cannot see they would take the money away at all. It is in our forward program. It is in QTRIP and we will get to it eventually. I have talked to the local mayor about that and I know my minister has also put something out on it. We will get to it. We are doing the work now on the engineering side, because it is alright fixing the bridge but there are the two approach roads either side. It is in the system, I think.

Mr BOYCE: In the town of Taroom work has just started on the bridge at Sandy Creek on the Roma Taroom Road. The general public are asking me how they go about naming the bridge when it is complete. Can you give me an overview on how that works?

Mr Scales: There is actually a system. It is on our website. Basically, we take submissions from the public. Sometimes you get lots of competing names. They come in, they get assessed and the minister will make a determination. If you take the Toowoomba second range crossing in Mr Watts's area, we named various crossings and we got locals involved. I think that was pretty successful. There is a process. It is on the website. You make submissions, we make a determination and put a recommendation to the minister and the minister does it. There is a system there.

Mr BOYCE: In actual fact it is not the local government authority that does that; it is the minister's office?

Mr Scales: It is the minister's final decision but we make the recommendation based on the submissions.

Ms PUGH: I am in the final stages of hopefully having my Sumners Road overpass named. I want it named after a person so I think there might be additional steps in place in that case. My question is about local businesses. One of my favourite statistics on Main Roads is that I understand over 90 per cent of everything that you procure comes from Queensland based businesses. On Friday I visited a company called National Plastics and Rubber. They supply internationally. They supply to almost every mining company in Queensland. They supply to Heathrow Airport. However, they do not supply to Transport and Main Roads because it has never occurred to them before. I wanted to get a basic understanding of the process of how they, as a fantastic international business of some repute, would go about applying to be one of your suppliers.

Mr Scales: There is something called QTenders that has everything that we are doing. QTRIP is a four-year program. Everything we put out to tender is on that. If they have a particular product, you can see by what we are building and where we are going what that product is. They can submit something to the department. Given that it is from a local member, submit it straight to me and I will stick it in the system and get back to you. It depends on what the product is, what the specs are and where we can use it. Once we have gone through that it will come down to price and delivery. Because we are funded by the people of Queensland we try to keep it all Queensland based, as far as we possibly can.

Again using Mr Watts's area as an example and the Toowoomba second range crossing, there were no work camps; they were all people who drove in. We said that 'local' is if you can drive there within an hour. All the stuff there was very local. The only thing we ran into difficulty with was when we procured the utes. The prices of the guy in Toowoomba were slightly above the prices of the guy Brisbane

in Brisbane, but they were procured locally anyway. That is just an example. All the PP was procured in Toowoomba as well. We make a very deliberate effort to try to procure from as many local sources as we possibly can. We have statistics on, for example, the Mackay Ring Road, the Townsville Ring Road stage 4 and the Toowoomba second range crossing about keeping it as local as we can. For the purpose of this, send me the details and I will stick it in the system for you.

Ms PUGH: Obviously we have had a lot of projects locally. Certainly I have heard stories from the suppliers onsite that things have come from Wacol, for example. A lot of stuff is created locally, which is fantastic. How are you able to procure things locally? I imagine you must be one of the best practised departments with statistics over 90 per cent. It is very impressive.

Mr Scales: We have had a lot of practice. Transport and Main Roads has been around for 11 years, but the two individual components, particularly the main roads department, go back decades. We have always tried to get things from local suppliers, not just for employment but also for quality and ongoing economic benefit. We like to think we are good at it but we can always get better. Things like what you have raised just now, member for Mount Ommaney, are great because we can put it in the system and see if it works and keep it going.

CHAIR: Noting that we are not trying to start rivalry between departments!

Ms PUGH: Not at all.

Mr WATTS: My question relates to the range crossing. I am getting a lot of feedback from the people on the range about G-brake noise and engine noise. I would be interested in getting an update as to what is going on there. I know that in New South Wales on the Illawarra Range going down into Wollongong they have cameras but they do not have any legislation to enforce. I have been pushing for cameras because a lot of the trucks are above the decibel limit that should be on the road, but they do not seem to be tested for that when they get their annual test done. One component of my question is the noise, cameras and what is happening there.

The other part is James Street and whether we now have a situation where the lights have been reconfigured for local traffic with those changes. I note that there still seems to be a priority for the traffic on James Street, which I do not think there should be. If you want to go through Toowoomba quickly, use the bypass. That is what we built it for. The very last part is the 90-kilometre-an-hour speed limit on the range crossing itself. I wonder whether there is any situation where that might be reviewed. I know some of the trucks are frustrated at the 90-kilometre speed limit.

Mr Scales: Thank you for the question. I think it is a great piece of road. It is 42 kilometres long. We designed it so there would be a maximum of about a six per cent gradient, so there should not be many times you need to use engine braking. I monitor the patronage on that particular road every week. I am pleased to say that the heavy vehicles have remained pretty steady all the way through and I think you will agree that you have got your town back.

Mr WATTS: There is no doubt it is a great piece of infrastructure.

Mr Scales: On the engine noise side, now that I have got back my 133 inspectors who were helping our colleagues and the police on the borders—not just in New South Wales but also at Birdsville for South Australia and Camooweal for the Northern Territory; we have had our inspectors deployed on that—I can deploy inspectors on that just to do some spot checks. Then I can come back to you directly locally.

On cameras—you mean noise cameras, really—we have not got that far in that technology, but it is something the department is looking at. That is an area we would consider for the future, once we have noise cameras. Just indulge me for a moment. Basically they have a decibel trigger on them. Decibels are really odd because every three decibels is a doubling of power, so six decibels is a quadrupling of power. The regulations that the trucks are built to are federal regulations, so they should be consistent if the truck is from here, New South Wales, Victoria or wherever. The idea is that you have this camera, it is monitoring continuously and if it has a spike over a particular level it will take a picture of the licence plate and then that will go into the system for enforcement. We are not convinced that this technology is there yet, but it is a stream of work that we are doing because it is important, particularly in residential areas—not necessarily rural areas but certainly other areas where you have a road and you have engine braking, which can be quite noisy. Eventually I will update the committee on where we are on that if you leave that one with us. Separately I will do some checks with our vehicle inspectors.

You are entirely right that James Street was set up for local traffic and also set up to give priority to local traffic. It is something that we are going to have another look at. Again I will wind that in, Chair, with your indulgence, to the same response to the member.

In relation to the 90-kilometre speed limit, I know the trucks want to go faster. One of the real benefits of the second range crossing is that it saves 25 minutes from Toowoomba to the port. I can tell you from previous experience that five minutes is a long time; 25 minutes is an enormous amount of time. That 90-kilometre speed limit was set not just by us but with the local authority, the councils, and with the police. It was set for safety reasons. One of the things I can do, once we get another bit of operation time under our belt, is have another look at it and then come back to you again.

With your indulgence, Chair, I can send the member a response with those three things that gives a lot more detail. Certainly the trucking industry have also lobbied me about the 90-kilometre-an-hour speed limit. They think it probably could be and should be increased. We have a different view because we have to look at safety for the whole of the network. It is not just the department; it has those other components as well. We are certainly going to have a look at it.

I make the point again that we have done really well with the naming of various bits of structure on that. That goes to a couple of points as well. I think on the technology side it is one of the areas the department is pretty strong on. I refer back to the member for Callide and can say that with pavement technology we are probably as good as anywhere else. In fact, we are as good as anywhere in Australia and we are probably leading edge. That is part of the maintenance side. Once we fix it we do not have to keep going back and fixing it again.

CHAIR: I think in the last parliament we went down and visited the ARRB about pavement technology. Sorry to butt in with an example but, in relation to engine braking, in an area that the director-general is probably familiar with just outside Petrie, at the request of residents we lowered the speed limit and now the residents are upset about engine braking, because all the trucks are slowing down through that area.

Mr WATTS: I just seek clarification from the director-general. This is me lacking the technical understanding, but there seems to be a whole class of vehicles that are fully loaded that go down there and they must have a different technology because they do not make any particular noise. I do not want to mention any companies here, but there are some companies with whom nobody has any problem and then there are other trucks. As you say, on a dBB logarithmic, a few dB up makes a big difference to how well you sleep that night. Is there different technology? Is this to do with date of vehicles or is it to do with the technology they are employing? Is there something that we need in the regulation to restrict this or is it that people have modified the vehicle, pulling baffles out and things like that, for fuel economy?

Mr Scales: It could be a whole range of things. The engines are usually manufactured by an original equipment manufacturer and put into the truck itself. If the baffles have been taken out for fuel economy, that is something that we could take up through the vehicle inspectorate, but the vehicle standards are set federally. You will find that some engines and some manufacturers are a lot more efficient than others, depending on where they come from. I am just saying this from a personal point of view: the trucks from Sweden or Scandinavia tend to be a lot quieter than ones that are built where you have big, wide-open spaces. The reason is basically that it is their internal market so you have the benefit of that. We have Euro 6 coming—Euro 6 on trucks and on cars—which will give less emissions and you will find that that gives you a better engine braking algorithm as well. That will go forward. The other thing, I suppose, is that it depends on the age of the truck and who is maintaining it and to what standard. We are very alert to the fact as a department, working with our colleagues and the police, that it can be, as you say, very distracting if you have engine braking.

Mr BOYCE: A lot of people are probably not aware of the fact that engine braking is absolutely critical in the transport industry instead of using your normal brakes. If you run out of normal brakes you are in trouble if you are in a big truck.

Mr Scales: Absolutely. It is an efficient and necessary component that you have to have. You are absolutely right. I would like to invite the committee to the National Asset Centre of Excellence at Pinkenba to give you an update on where we are with pavement technology. I think it is important that the committee sees what this department is doing, because it does feed into maintenance and the member for Callide's point. It does feed into what we are trying to do with plastics, for example. People think you can just grind up plastics and put it into road base. It is not that easy, because there is a wide range of plastics and we are a bit worried that some of it could have the same sort of issues of PFAS. We are obviously not wanting to introduce that sort of problem.

We already have specs for crumb rubber so you can grind tyres up—either bus tyres or truck tyres—and put that into the road surface. Again, you have to be very careful because if you take the price of crumb rubber in Queensland—say it is 10 bucks a tonne—we do not really want people going

offshore and buying it for six bucks a tonne because all you are doing is sorting out somebody else's tyre problem. What we have on foot in the National Asset Centre of Excellence for pavements I think is something the committee would find of interest, if you have time to do it.

CHAIR: I am glad you mentioned that. I was going to ask if there would be a chance for the committee to visit the Smartship simulator. The member for Callide and I have already had this opportunity. It is a pretty good bit of kit. As this committee looks after ports, I think it would be of benefit.

Mr Scales: The committee is hereby invited. I think it is really useful to have a look at the smarts that we have. I think there are probably over 100 ports in that community now. The issue there, of course, is that, if you take Curtis Island and the gas plant, we had actually trained all of the pilots and the captains before they docked a single ship. You can turn the swell up and down, you can turn the wind up and down, you can even put an iceberg in the harbour. You can do all of that sort of thing.

Mr WATTS: We will be in trouble if we get one of those at Curtis Island!

Mr Scales: I know, with global warming. You have a 360-degree wraparound. You can actually feel the horizon moving up and down. You have lots of different bridges, plus you can drive a tug as well.

CHAIR: It is amazing. Just while we are on that, would it be possible to visit Cross River Rail, where the tunnels are being dug.

Mr Scales: I have to inform the committee that I was there this morning, International Women's Day, because they are named after very powerful ladies: Else Shepherd, who was a very powerful engineer—

CHAIR: And the chair of Powerlink, where I used to work.

Mr Scales:—and Merle Thornton. Else is now out of the cavern. It is now boring its way forward. The other one, Merle, is yet to go. It is worth having a look. They are 165 metres long, 1,260 tonnes each and the cutting head advances forward 1½ metres and it pushes off the ring, which is all segments, and all the segments are produced by a local company, Wagners. Wagners have produced all the segments.

Ms PUGH: In Wacol?

Mr Scales: Yes. I think they might be a bit closer than that. I think half of the segments are onsite. It is just a fantastic piece of kit. It is worth having a look at.

CHAIR: We would love to see it.

Mr Scales: I will sort that out.

Mr WALKER: I had the opportunity to meet some of the team last Friday on Cross River Rail in the inner city. The team is highly professional. They run a very safe induction and the tour was very informative. The volume of soil removed, how they remove it, the noise suppression, traffic management and truck management is exceptional. I thank the team for their time last week. The other thing I would like to receive through the committee, if I could, Chair, is the stats around the amount of crushed glass that goes into bitumen across the state. I know we have started trials in Townsville. Exceptional volumes of crushed glass go into bitumen under tight specifications, but I think there is a great story to be told about what Mr Scales' department is doing in putting material back in and recycling. It is a big story and it is a great story and I would love to see the stats around that across the state.

Mr Scales: That would be easy. I can do that. Chair, if you get to see what we are doing in the National Asset Centre of Excellence, there is a lot of work in there, but one of the things that is exercising our minds at the moment is the plastics side of it. The range of plastics is very wide. Certainly I can get you those sorts of stats and what is happening elsewhere.

CHAIR: Member, would you like to place that question on notice or wait until we visit the centre of excellence?

Mr WALKER: We can wait until we visit. I think it is a good story to get out in the public arena, because we are doing it at so many different levels. I take on board what Mr Scales just stated. In Townsville we have a company, QPlas, which deals in the softer plastics which recycling cannot manage. There is a big range of plastics and it is quite tough for industry to manage. It is great that you are in that space and the Queensland government and the team supports more work right across the board when it comes to recycling.

Mr Scales: With another hat on, I am chair of Austroads. Austroads are doing a lot of work in this regard. We have an initial report on plastics. With your leave, I can give it to the committee secretary for distribution amongst the committee. That is state-of-the-art. It has a really straightforward, good executive summary and then all of the work behind it is underneath. It will give you everything you need in the summary and then, beyond that, you can see the work that we are doing.

CHAIR: We will place on notice the question about statistics on crushed glass, though.

Mr Scales: Yes.

Mr MILLAR: Going back to the workforce statistics of 30 June 2020—it is on page 13 of the briefing we have here—we have seen the permanent workforce from 2013-14 reduced from 73 per cent to 70 per cent. If you go to the statement of comprehensive income on page 12, employee expenses increased. Your original budget was around \$608 million but you actually had \$633 million, so there is a variance of \$25 million. Why is that? We saw an increase in employee expenses yet a decrease in some areas of the FTE numbers.

Mr Scales: On the FTE numbers, I will get back to you on that.

CHAIR: We have a question on notice with regard to that.

Mr Scales: If you want me to add that particular point in, I am happy to do that.

Mr MILLAR: I am only seeing this for the first time now.

CHAIR: Mini estimates.

Mr Scales: I am trying to turn up just by myself, and that sort of detailed question—

Mr MILLAR: You can get back to us on that. On another matter totally unrelated, I found an issue going to Far North Queensland with the sugar industry to do with the National Heavy Vehicle Regulator. The issue around critical roads and the requirements on moving harvesters and agricultural equipment is becoming a very stressful situation for many cane farmers because of the amount of things such as the agricultural pilot, the pilot signs et cetera. I understand it is necessary on the Bruce Highway—absolutely—but with critical roads that are just country roads, is there any desire to fix that up or to try to help the industry move machinery around?

Mr Scales: That is a very good question. Over the last year we have received 24,000 heavy vehicle permit applications. We are turning those around really quickly. The repeat applications are easy to do, but moving agricultural machinery from farms across roads to the field happens when it happens; you are absolutely right about that. We are working with the industry, with our colleagues at the NHVR but also in the district areas as well—Mackay is a really good example of that. We are talking to some local cane farmers now about the Walkerston Bypass and how we can get cane vehicles from one area to another and the treatments we have there. It is all about safety and you cannot actually mandate things that will necessarily work in, say, Ingham or work in Mackay. There is a definite desire to work with the industry. Certainly my minister, over the last year, has been talking to all the key stakeholder groups, including the cane industry, about how we move things around. It is something that we are doing. It is something that we can keep the committee apprised of as we move forward.

I have met with representatives of the cane industry. When the cane is ready to harvest—I have been taught that that is when the flowers are coming out of the top—and the conditions are right, you want to move all your kit straightaway. We are trying to facilitate that, because the whole point of the department is to create a single integrated transport network.

Mr MILLAR: As an add-on to that—and this is moving back into Central Queensland now; I bring this up all the time—I believe that the Easter program the department of transport has with the police with the Fatal Five is really important. One of the issues we face around Easter time is the movement of cotton harvesters from Emerald down to Goondiwindi. When you have to go, you have to go. You cannot allow the rain to affect your yield. Is there any desire to work with the industry to try to work out how we can move machinery very safely over that period when you have to go?

Mr Scales: I have been working with the industry for the past nine years, and we will continue to do it, but the cotton harvesting kit is usually non-standard, meek and moves really slowly. We get the point that it has to move when it has to move. We are working with industry to try to facilitate that. It is all about yield; we get that, member for Gregory.

Ms PUGH: Just picking up on your point earlier about truck construction in countries like Sweden where the population is more dense and people have to live closer to major transport infrastructure, we are starting to get to that point here in certain parts of regional Queensland like

Toowoomba and Townsville. My question is around the criteria for noise barriers both for new roads—it is a lot easier to get them—and for existing roads. Obviously there is a decibel reading that has to be met, but it is impossible to get a decibel reading on a project that has not yet been built. What is that trigger point? How is that assessed in terms of an upgrade or a new project versus an existing road where there is that decibel reading that is much easier to capture?

Mr Scales: The process is described on our website and it is pretty comprehensive. There are a few issues that always come up. One is that we tend to take trees out when we build new things. People think, 'Oh, the tree has gone. It has an attenuation factor. It knocks the noise down.' It does not, actually. What we try to do is put more trees back than we take out. Sorry to come back to the member for Toowoomba North—

Mr MILLAR: No, it is a great piece of infrastructure. Use it as an example and build more.

Mr Scales: I think the issue there is that we did not have noise barriers everywhere because you did not need them. If you take the extra lanes we put in on the Centenary Motorway, we put noise barriers straight up because we knew it would generate eventually more noise than our trigger point. We have a pretty sophisticated noise monitoring kit which we can put into people's homes and just measure it, but the problem we always get to is that three dBs are a doubling of power. It is complicated, but three dBs are a doubling of power. People say, 'Oh, it is only 5 dB,' but that is nearly a quadrupling of power.

The processes are really well defined. They have served us well as the department for 20 or 30 years. However, if there are any individual issues—and that is for the whole committee—the engineers will turn out and do the best we can. I have to say, on International Women's Day, that we have 111 female engineers, which is enormous. I spent 25 years in the UK trying to get one and failed. I have 111 here and we have 10 per cent of our workforce full-time equivalent. We have about 700 engineers. All are PEQ standard.

Ms PUGH: To give you a bit of feedback about those new-style noise barriers, being that they are only two metres high but they are constructed of very different equipment: the constituents were initially quite sceptical. They were saying, 'How will they work if they are only two metres high?' They have since said, 'No, we are happy to eat our words; they are fantastic and very effective.' I thought I would pass that along from people who are actually living next to the road.

Can I also tell you my theory about the trees? I call it ambient noise. It is like going down to the ocean to take a decibel reading: you probably get a reading well over what you need to warrant a noise barrier, but you do not mind the noise because it is ambient noise; it is coming off the ocean. I think it is the same with the trees. If the trees are filtering the truck noise, it is a much nicer sound to listen to than straight-up air brakes from a truck where you have visual line of sight and you can hear everything without any filtering.

Mr Scales: I think that is a good point. My minister is really hot on this and we always put foliage back where we can. The foliage we put back is all native flora. It is not parachuted in from Bunnings; it is really good stuff.

CHAIR: On the issue that the member just raised, I did not know that there is a new style. Could you briefly talk about the difference between the old and the new?

Mr Scales: It is all acoustic. Acoustic engineering is always tricky and challenging. When you visit the National Asset Centre of Excellence, I can get an appraisal on that to tell you what we have done. Some of our noise barriers around the Centenary Motorway are wood. The latest ones are concrete. Perhaps they do not look as nice, but we cover them with trees eventually. They are much more effective and are maintenance-free, whereas we have to keep going back to maintain the wooden ones. As the member for Callide pointed out earlier, there are never enough dollars in the bucket to do everything you want to do at that time.

Ms PUGH: I disagree about the look. I have to say that I think they look very nice, and 20 years from now they will look much better than the wood ones.

Mr MILLAR: I would like to make a correction. I mentioned the reduction of FTEs, but you have actually increased your full-time equivalents in this graph. I apologise if I—

Mr Scales: No worry.

Mr MILLAR: You have increased staff. What I am looking at in the main question, so I do not waste departmental time, is the decrease located outside South-East Queensland.

Mr Scales: I will come back to you on that.

Mr BOYCE: Last year we visited CASA in regard to the drone technology and the facility at Cloncurry. How long is it before we see drones flying around at that facility?

Mr Scales: Drones are something I am really interested in, not just as an engineer but also from the departmental point of view. We have our Chief Remote Pilot, who is located in the department and who is CASA accredited. We use drones for various engineering reasons. We use a LiDAR scanner, which mimics the same sight as your eyeball, for bridge inspections. There is no need to stop the traffic. You can put the drone underneath and get some pretty good datasets.

There is a lot of speculation in the press about when we are going to see a person lifting drones, like air taxis for freight. That, in my personal view, is a long time away because they are very noisy. CASA have them down particular corridors. The facility you are talking about—I do not think it is one of the department—

CHAIR: It is State Development.

Mr Scales: State Development, so I cannot help you there. All I can say is that we have wrapped our arms around drone technology and we are using it as much as we possibly can. When you get a NACE call, National Asset Centre of Excellence, I will get our people to tell you what we are doing there. We use them often for engineering purposes. We find them really good. If you take our colleagues, for example, in QR, as long as you have a line of sight, you can use them for inspection of track. We are quite excited about it. The other thing we have, which we will try to show you, is 3D printers for use in designing bridge abutment. We will actually design it, print it out in scale and see if it all works.

CHAIR: I know the electricity supply industry is using drones for a lot of surveying of powerlines as well.

Mr Scales: To reinforce the point that the member for Callide made, CASA really grab it up in regulations and enlarge its line of sight. If you take the 9,000 kilometres of track that you have on the QR side, you would have to have line of sight to use it adequately and sufficiently. We use it to great effect on bridges so we can get underneath bridges without stopping the traffic, which is the same sort of idea that we have with the iPAVe machine. It operates at road speed, so you are getting really accurate condition monitoring of the pavement without actually stopping the traffic.

Mr WATTS: You mentioned a pavement that had some benefit. I am aware that the Wagners have a particular concrete that contains carbon. I am wondering where we are at in terms of getting that approved for infrastructure in Queensland. I know they are doing some things overseas, but I would be really keen to see that concrete that can sequester being utilised in our infrastructure builds all over Queensland.

Mr Scales: I am sure we have put that into the system and assessed it. Again, it looks like I am dodging the question—I am not—but I think we can take you through that when we are at the National Asset Centre of Excellence. The other thing is that we are working with Myuma who are using spinifex. They extract these polymer strands out that they can use for latex products; we are using it to reinforce concrete as well. It is an Indigenous-owned organisation. We have been working with them for 20 years now. Colin Saltmere, the guy that runs that, he is actually using spinifex to produce resin/latex products. I think the latest thing he had was Botox products as well. This spinifex is yielding all sorts of things. We did try to use it in bitumen. Because bitumen is at a really high temperature, the whole thing just falls over, but for concrete, which is low temperature—

CHAIR: Latex stops it crinkling?

Mr Scales: Something like that, chair, I wouldn't know. You might be an expert.

CHAIR: I do not know; that is why the question, director-general. Thank you all very much. We do have some questions on notice, Mr Scales. The first one was the workplace statistics outside South-East Queensland, and the second one was the statistics on crushed glass in bitumen. If we can get those statistics, that will be great, and we will see it more fulsomely when we come to the National Asset Centre of Excellence.

Mr Scales: I will send the committee secretary an invite to Smartship and also the National Asset Centre of Excellence and Cross River Rail. I will talk to my colleague Graeme Newton about that. I was down there this morning looking at two boring machines. You really need to see them. They are 165 metres long and they are really excellent pieces of engineering—very interesting.

CHAIR: That concludes this briefing. Thanks very much for your assistance and attendance here; we really appreciate it. A transcript of these proceedings will be available on the committee's parliamentary webpage in due course. I declare this public briefing closed.

The committee adjourned at 10.16 am.