PUBLIC

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS MET IN COMMITTEE ROOM 1, PARLIAMENT HOUSE, HOBART ON TUESDAY 16 DECEMBER 2025.

ROKEBY RD - SOUTH ARM ROAD UPGRADES - ACTON ROAD INTERSECTION

The Committee met at 2.00 p.m.

CHAIR (Ms Butler) **-** Welcome everyone. Before we commence the hearing, I will introduce the members of the Committee: to my right, Dean Harriss; and to my left, Helen Burnet. We have Terry from Hansard; and Scott Hennessy, the Secretary, and Georgia assisting him today.

Ms Rattray and Mr Shelton are apologies for the hearing today.

Secretary, would you please read out the message from Her Excellency the Governor in Council referring the project to the Committee for inquiry?

SECRETARY -

> Pursuant to section 16(2) of the *Public Works Committee Act 1914*, the Governor refers the undermentioned proposed public work to the Parliamentary Standing Committee on Public Works to consider and report thereon.
>
> Pursuant to section 16(3) of the Act, the estimated cost of such work when completed is $15 million - part of the Rokeby Road-South Arm Road Upgrades which currently has $55 million committed in funding.
>
> Rokeby Road-South Arm Road Upgrades-Acton Road Intersection.

CHAIR - The Committee is in receipt of one submission from the Department of State Growth. Could I ask a member to move?

Mr HARRISS - Chair, I move -

> That the submission be received, taken into evidence and published.

Motion agreed to.

CHAIR - The witnesses appearing before the Committee today are representing the proponent, the Department of State Growth. Could I ask each of you to state your name, your position, organisation and then make the statutory declaration?

Mr MIDDLETON - Luke Middleton, Acting Manager, Transport Network Planning in the Department of State Growth.

Mr MUIRHEAD - Scott Muirhead, Project Manager at the Department of State Growth.

Mr van de HYDE - Jacques van der Hyde, currently Project Manager of the Department of State Growth and also in attendance today as a former recent Acting Project Management Team Leader leading Scott's team, and that was in the capacity between April and November 2025.

Mr LUKE MIDDLETON, ACTING MANAGER, TRANSPORT NETWORK PLANNING, **Mr JACQUES VAN DER HYDE,** PROJECT MANAGER, and **Mr SCOTT MUIRHEAD**, PROJECT MANAGEMENT TEAM LEADER, DEPARTMENT OF STATE GROWTH, WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

CHAIR - Thank you for appearing before the Committee. The Committee is pleased to hear your evidence today. Before you begin giving your evidence, I would like to inform you of some important aspects of committee proceedings.

A committee hearing is a proceeding in parliament. This means it receives the protection of parliamentary privilege. This is an important legal protection that allows individuals giving evidence to a parliamentary committee to speak with complete freedom without the fear of being sued or questioned in any court or place out of parliament. It applies to ensure that parliament receives the very best information when conducting its inquiries.

It is important to be aware that this protection is not accorded to you if statements that may be defamatory are repeated or referred to by you outside the confines of the parliamentary proceedings. This is a public hearing; members of the public and journalists may be present, and this means your evidence may be reported. Do you understand?

WITNESSES - Yes.

CHAIR - Mr Muirhead, would you like to make an opening statement?

Mr MUIRHEAD - Thank you. I might pass to Luke to start the statement, and I will follow on from there.

Mr MIDDLETON - Thank you, Scott. My role is as Project Client for the project within the Department of State Growth. I'm just going to outline in broad sets the need for the project, which relates to safety and congestion around the Acton Road junction.

South Arm Road provides a critical transport link which services adjacent suburbs as well as those further east. Traffic modelling undertaken as part of the Rokeby Stage 3 Corridor Planning Study undertaken in 2020, suggests that without the upgrade works, travel times for the five kilometre section between Acton Road and Pass Road will increase by four minutes, which is around 65 per cent, from six minutes in 2019, to 10 minutes by 2029. The works for the South Arm Highway upgrade are predicted to constrain the travel time increase to about 1.5 minutes.

The planning study also identified that the Acton Road intersection should be prioritised to address congestion and resulting safety issues. The Acton Road intersection currently experiences relatively long delays during the morning peak hour due to its function as a local access road for both Lauderdale Primary School and residential properties. As we experienced

this morning, when there are events going on at the school, the queues are fairly significant, although exacerbated today by the roadworks down the road.

The delays experienced result in some drivers using short gaps in traffic to pull out, creating the potential for crashes. There are also inadequate facilities to enable pedestrians to cross South Arm Road safely to access the westbound bus stop. In fact, there are no facilities to enable pedestrians to cross the South Arm Road safely in reality.

The works are funded under the 2018 election commitments for State Road Upgrades (Southern Region) which has a commitment of $11 million from the Tasmanian Government and $44 million from the Australian Government. This $55 million funding allocation covers two components identified in the planning study: the upgrade of the Acton Road intersection, which is this project, and duplication of the South Arm Highway between Pass Road and Oakdowns.

The upgrading of South Arm Highway between Pass Road and Oakdowns is still in the preliminary design stage. Design is not expected to be finalised until early 2027, with works not set to commence until mid to late 2027. Due to the feedback received from the community, this funding amount will also fund a pedestrian barrier to be installed on the northern side of South Arm Road from the intersection safety barrier east to Ringwood Road. This piece of work is looking to be fast-tracked for delivery in early 2026. Thank you.

CHAIR - Thank you. As a committee, we like to go page-by-page through the document, the submission that you've provided to us. Can I ask -

Mr HARRISS - I think Scott was going to make a statement.

CHAIR - Sorry, Scott, please, proceed.

Mr MUIRHEAD - I was going to continue with the opening statement to talk through the project itself in a bit more detail and some of the impacts.

On the proposed works, the project involves upgrading the intersection of South Arm Road and Acton Road in Lauderdale. The works include:

- the replacement of the existing 'Give Way' control junction with a new signalised intersection - so putting in traffic lights;

- dedicated turn lanes for turning movements into and out of Acton Road, two lanes in each direction for South Arm Road to facilitate connection with future upgrading of South Arm Road further to the west;

- two sealed indented bus bays, one in front of Lauderdale Primary School for the eastbound traffic and one to the west of the intersection for westbound traffic;

- footpath connections to bus stops via signalised pedestrian crossings;

- the two new bus stops to comply with DDA standards and a shelter for the westbound bus stop;
- dedicated cycling lanes through the intersection;
- a new entrance to the Lauderdale Primary School to improve access and service future bus models; and
- the extension of the existing carpark at Lauderdale Primary School.

Just to talk to some of the other options that were considered before landing at the signalisation of the intersection.

As part of the concept design development, an options analysis was conducted that considered three options for the Acton Road junction upgrade. There were two roundabout options that were investigated. One roundabout option focused on minimising acquisition of private property, so keeping as close to the current alignment as possible, however it resulted in disruption of traffic flows and difficulties providing access to Lauderdale Primary School. The second roundabout option improved those issues but required greater acquisition of private property and created access challenges to those properties as well.

The third option was the signalisation of the intersection, which the options analysis identified as the preferred treatment. This was due to improved pedestrian safety, reduced acquisition of private property, improved queuing and access to the Lauderdale Primary School, improved traffic flow in off-peak periods for South Arm Road, and future integration with the broader South Arm Highway upgrade, aligning with the earlier planning study in which intersection upgrade treatments were all considered as part of a multi-criteria analysis.

To quickly touch on the materials, it's broadly a road construction project. It has a service life of 40 years for the pavement, and for the bitumen surfacing a service life of at least 15 years. The materials, where feasible, would be sourced from Tasmania, pending contractors to be procured, such as aggregates to be sourced from local quarries, and road furniture sourced from local suppliers.

To briefly talk to the benefits of this Acton Road intersection: they are alleviating the congestion and maintaining travel time into Hobart CBD, improving connectivity to South Arm Road from Acton Road, improving safety for all users, and providing new opportunities for active and public transport, managing the congestion and safety at school drop-off and pick-up times, and making the intersection safer for motorcyclists, cyclists and pedestrians.

A benefit-cost ratio has been completed, with the BCR coming out at 3.7 with a discount rate offour per cent. That means that for every $1.00 spent on these works, it's expected to get $3.70 of benefit to the community. That's a strong result and confirms the value of the works.

The works done to date: the design of the project has progressed to a detailed design stage. The progression of design has included site investigations, heritage assessments, environmental assessments, road safety audits, and stakeholder consultation. All these investigations have impacted the detailed design, which has been referred to the Committee.

To talk to some potential impacts: there are several impacts that need to be considered with this project. We are impacting eight property accesses. Also, for those eight property titles, they will be each impacted by partial land acquisition.

Noise has been considered throughout the works. Noise assessments have been completed, confirming that no noise mitigation is required for the works. We've also been working with utilities providers, as utilities connections to nearby properties will need to be altered and relocated accordingly.

As part of the environmental investigations for the project, impacts to swift and blue-winged parrot potential nesting and foraging trees were identified. An assessment was made against the EPBCA [Environmental Protection and Biodiversity Conservation Act] significant impact criteria, and it was determined that the project is unlikely to cause significant impact. However, the project has still been referred to under the EPBC Act 1999 so that these assessment conclusions can be endorsed. We are expecting the outcome of that referral to come in on 6 January. It should be noted that if the results of that referral come back different from what we expected, then there will likely be some time impacts - but that isn't the expected outcome.

To talk to the costs: the estimated cost of works is $15.1 million - that's the P50 estimate - or $16.5 million as the P90 estimate. These include contingency and escalation. For this project, the key contingent risk items that have been factored in include:

- additional utilities requiring relocation resulting in additional cost;
- the escalation of tender prices based on market saturation;
- the extent of ground improvement works being required may be greater than anticipated, or there might be heavier rainfall than envisioned, causing delays to the project and therefore costs.

This cost estimate shows - under the $55 million funding allocation - this demonstrates that the works are currently forecast to be delivered within the available budget.

To quickly talk to the timings of future actions for the project: that includes the progression of land acquisition throughout January and February 2026. The current scheduled tender advertisement date is for late February 2026. The assessment of tenders and award of contract would happen between March and May 2026 - so, hoping to award in May 2026 - with construction likely to commence in July 2026, and roughly a 12-month construction period, so going through to mid-2027 - although we will know a bit more about that once the tenders from market do come in.

It should also be noted that there are some approvals that are outstanding that will need to be closed out before the progression to tender, which include the EPBC, which I've mentioned, as well as confirmation of our project proposal report which has been submitted to the Australian Government for endorsement of the spending of that committed funding.

In summary, the proposed works have been developed in response to the need to improve the operation and safety of the South Arm Road and Acton Road intersection, particularly

during the peak drop-off and pick-up periods for Lauderdale Primary School. These works are considered to be a fit-for-purpose and value-for-money solution to address the existing community need for upgrading safety of the South Arm Road and Acton Road intersection and maintaining travel times. I welcome questions.

CHAIR - Thank you very much for this submission. There's a lot of very well-organised information here for us to scrutinise. My first question is around the strategy undertaken to rework that whole corridor through the South Arm Highway. I think it was called the - was it Rokeby Road Strategy?

Mr MUIRHEAD - Rokeby Stage 3 Corridor Study. That was in 2020.

CHAIR - In 2020. Can you provide us with some information around the whole strategy and why this particular aspect of that strategy was earmarked to go first? There are different sections of the Rokeby along that path, I believe, that will be upgraded from two lanes to four lanes, et cetera.

Mr MUIRHEAD - Luke would you like to talk to the Corridor Study?

Mr MIDDLETON - You're probably across it a bit more than me at the moment.

Mr MUIRHEAD - Sure. The Corridor Study, completed in 2020, considered the duplication from Pass Road through to Acton Road and a prioritisation exercise was done via a multi-criteria analysis. The first priority projects that came out of that study were the Acton Road junction upgrade and the Pass Road to Oakdowns duplication.

The reason why the Acton Road junction upgrade was included as part of the first priority of works was because it was forecast that in the 10- to 15-year period from when that Study was complete there would be considerable congestion at the current Acton Road junction if no further mitigation measures were put into place, which is why it was specifically called out in that Study to be prioritised, even though it is geographically separate from the Pass Road to Oakdowns section.

CHAIR - With the $50 million that's been allocated to realise that strategy in that whole road upgrade after this project's completion, will there still be enough funding to complete the other stages as well? I believe there's $50 million and this is, hopefully, the $16 million that's coming from that $50 million. Is that correct?

Mr MUIRHEAD - That's correct. The project's being funded by the current $55 million commitment via that 80/20 split that was talked about before. The Acton Road intersection is expected to cost $15.1 million up to $16 million, depending on contingencies. That leaves a bit under $40 million available for the Pass Road to Oakdowns upgrade. Initial concept design cost estimates for the Pass Road to Oakdowns upgrade have indicated that additional funding will be required to complete that full extent of works under that. The Department is currently awaiting some updated cost estimates for the Pass Road to Oakdowns section based on the preliminary design, because there have been fairly significant changes between concept and prelim design, so we're hoping to, at the prelim design cost estimate, to have a better understanding of the extent of what the budget shortfall will be. We'll have to understand that in more confidence.

CHAIR - Do you know how many students currently attend Lauderdale School?

Mr MUIRHEAD - I do.

CHAIR - And what the projection is for student numbers at Lauderdale School? I believe it has a significant population.

Mr MUIRHEAD - I can't talk to the projection, but as of March 2025, this is according to the DECYP, Department of Education, the website, their enrolment figures. There are 686 students currently enrolled at Lauderdale Public School.

CHAIR - Was consideration of the entry and exit points for - I think there's a childcare centre behind the school. I think we walked past it this morning. That looked like it would probably attract quite a bit of traffic as well.

Mr MUIRHEAD - Currently, besides the access that we are upgrading into Lauderdale Primary School, the design is looking to maintain accesses to all other accesses that we are currently impacting. I suppose no upgrade or anything - more to maintain the access that they currently have and link it in with our upgrade works.

CHAIR - But there are quite a lot of young people within a small space, which gives reasoning for why we need to have a safe intersection, correct?

Mr MUIRHEAD - Absolutely.

CHAIR - Any other questions on page one?

Mr HARRISS - In the Need for Works, it notes 3.2 per cent per annum in recent years of traffic growth and that suggests that that's high for Tasmanian perspectives. What is a standard growth rate? Do you know or not? I'm interested to compare it to what a standard growth rate is.

Mr MIDDLETON - It's generally between one per cent and two per cent across the state. Obviously, some roads have less than one per cent.

Ms BURNET - My question goes to what you were saying previously, Mr Middleton, in relation to that first paragraph on page four of our report. You're talking about the upgrades, '… travel times for the 5-kilometre section between Acton Road and Pass Road will increase by four minutes from six minutes to 10 minutes', and then the works will reduce that time or constrain the travel time increase to 1.5 minutes over that period, is that right? It will go to 7.5 minutes rather than to 10 minutes. Is that what you mean?

Mr MIDDLETON - That is what that's saying, yes.

Ms BURNET - It's just this intersection and the upgrade there will be that reduction in time?

Mr MIDDLETON - Yes.

Ms BURNET - I have questions around safety, but I will come to that. I don't have particular questions per page. I have particular questions around safety, environment and students.

Mr HARRISS - Can I follow up on Helen's question? The timeframes that you talk about here, you're saying that this specific project is related to those times, or is that whole corridor part of it?

CHAIR - Once completed the whole Rokeby.

Mr HARRISS - I would have thought it relates to the whole part of it.

Mr MUIRHEAD - That's correct. That's from the planning study.

Mr HARRISS - This intersection won't do the suggested times here, will it? No.

Mr MUIRHEAD - No, yes.

Ms BURNET - That makes more sense, thank you.

CHAIR - I have a quick question around the consultation on the design. It states here there was liaison with Clarence City Council. Was that in relation to the intersection or the strategy for the whole area?

Mr MUIRHEAD - Both. Specifically, what the stakeholder engagement that is referred to a lot in this submission is talking about this project specifically - the Acton Road junction. We have talked around this specific design with Clarence City Council. We are also engaging with Clarence City Council on the Pass Road to Oakdowns project which is currently in design. Correct me if I'm wrong here, Luke, but I believe they made comment on the initial planning study as well.

Mr MIDDLETON - Yes, they would have.

CHAIR - Okay. Also - which we raised this morning on our site visit - has there been consultation with the private school bus contractors that will be providing the bus service in and out of Lauderdale Primary School around the design of that particular turning circle?

Mr MUIRHEAD - Yes, there has been. That bus provider is Metro. Through consultation with them, they actually provided the advice that the bus turnaround point that's going into Lauderdale Primary should be designed to allow for a 19-metre articulated bus. Even though they're not currently going through that, it was their advice to allow for that future provision. So, there has been that consultation with Metro in the design stage.

CHAIR - Is the Wynyard Bus Company providing school buses as well?

Mr MUIRHEAD - My understanding is no, but I would probably need to take that on notice to confirm.

CHAIR - Yes, if you can provide that on notice to the Committee. We have as a Committee looked at projects involving buses before and there have been issues with the design and the consultation. Just to be thorough, I want to make sure that we get this right.

Mr HARRISS - In the second paragraph it mentions relatively long delays during the morning peak hour. Do we know what that actually looks like? Also, do we have any crash data on that intersection?

Mr MUIRHEAD - I can talk to the crash data in the recent period. This is crash data I've taken between 2018 and 2020. There was an identified 11 crashes in that period around the Acton Road junction with South Arm Road, one of which was serious; three were minor, such as requiring first aid; and seven were without injury, so causing property damage only for that four-year period.

In terms of your comment on the queue lengths, I probably can't talk to quantitatively, specifically what that is, I would probably need to refer to our traffic modelling to provide that.

Mr MIDDLETON - We could verify the level of service, which is sort of what we're talking about there. We will take that one on notice.

Ms BURNET - I might ask a question around the proposed works and the users. We've talked about the car volumes and delays in time. There was clearly congestion when we were there today with the activities at school and with the roadworks further down the road.

In relation to overall safety for vulnerable road users, what thoughts have been put into making sure that this is the safest road for pedestrians and this upgrade is the safest for pedestrians, pram users, bike riders?

Mr MUIRHEAD - I suppose if I bring it back to what I mentioned with that initial options assessment that was done when there was consideration of roundabout options and then we landed on the signalised junction upgrade.

A key factor of that was based on pedestrian safety, because it provided that signalised pedestrian connectivity across South Arm Road and across Acton Road as well. In terms of the design process generally, it's a requirement when we're going through our designs that we are considering all road users, which includes cyclists, pedestrians, motorcyclists, and public transport. So all those factors are specifically called out when we go through our safety and design workshops, which are workshops that we do at intermittent stages of the design process, to make sure that safety elements are addressed for each of those categories in the design.

Ms BURNET - The safety workshop - is that internal, or is that the Department, or is that with external stakeholders?

Mr MUIRHEAD - Depending on the project: for this project, I believe it included - for example, Metro was invited to the safety and design workshop. Depending on the complexity of the project, sometimes it is just done at the Department level with the relevant technical experts.

Ms BURNET - This goes to the heart of need for works, I suppose: do you have a clear indication as to how people arrive at school - like the percentage of kids using public transport, private bus transport, cars, or bikes?

Mr MUIRHEAD - I don't have those figures available today. I will have to take that one on notice.

Ms BURNET - Yes. I think it's really fundamental, from my perspective, Chair, to make sure that we know what is required for that school and surrounding environment. Is it heavily dominated by car users? Presumably, yes - but is it something that - is there greater possibility of kids and teachers and so forth using active transport or using buses, if there are safer options?

Mr MUIRHEAD - Absolutely.

CHAIR - That would be helpful. When we're also looking at the usage and how students and that school community are accessing the school, I'm interested in what those peak times look like as opposed to non-peak times in conjunction with the usage of that South Arm Highway. Not only are you having a lot of school drop-offs or pick-ups, but you also have a lot of traffic coming through as they're going to work in Hobart or other areas as well. Do you have that kind of information?

Mr MUIRHEAD - I don't have the split of the - kind of comparing traffic numbers in peak and out-of-peak. But I do know, as Luke kind of touched on the need for works, that prioritising access for the school in those pick-up and drop-off times was a priority in the selection of the design and the progression of the works that we're doing in the Lauderdale Primary School itself, although I don't have that split of in-peak and out-of-peak numbers here.

CHAIR - Okay. I have one more question on page five. Does anyone have any more on page five?

Ms BURNET - I have another question related to that. Are there other out-of-school activities - like, is there out-of-school care? I'm wondering how that changes the use and timing.

Mr MUIRHEAD - I'm not sure on the out-of-school care. I will have to take that one on notice.

In terms of impacts for the use, I suppose the road is being designed accounting for future traffic growth in the region. The traffic lights will be managed to account for in-peak and out-of-peak flow, so it would be anticipated that even if there's another minor, I suppose, rush of traffic at the end of an out-of-school activity, we would be able to accommodate that with the phasing of those traffic lights as well.

Ms BURNET - Sure.

CHAIR - Mine's around the roundabout options and what would have been - I think your first option was roundabout, but there was concern around the acquisition of adjoining landowners' property. How much more were we looking at for project costs for that acquisition? How much more would that have cost?

Mr MUIRHEAD - I don't have the specifics, and we probably don't have the cost estimate of that one, as it was built up to the level where we could compare acquisition costs against each other. But I would be able to say that they would be significant based on the concept outlines that were developed at that point, as in we do have partial land acquisition involved in this one. So it's been unavoidable given the putting in of two lanes in each direction, but where the roundabout had to sit, it was a significant increase compared to the design that we are on now.

CHAIR - Can you also explain to the Committee, for the record, the safety aspects of young people crossing roads with a roundabout as opposed to with traffic signals?

Mr MUIRHEAD - Yes. With the design that we are progressing here with the signalised intersection upgrade, it allows for signalised pedestrian crossings phased with the traffic movements so that you can ensure that pedestrians are walking across the road - particularly for kids and more vulnerable people who may not be as fully aware of their environment - that they are crossing on green, there is no way that road traffic can be going through there at the same time.

With a roundabout option, you don't have that control. You aren't able to restrict the road traffic in those certain periods to allow the crossing. Of course, there are situations where that can happen. There are signalised roundabouts, but given the numbers in the situation, that wasn't seen as an appropriate solution in that area either.

CHAIR - And an overpass or underpass, they're both referred to in the submission. Can you talk us through the decision not to have an underpass or an overpass as part of the project design?

Mr MUIRHEAD - Yes. It was brought up in the community consultation for that. The reason why it hasn't been progressed is largely due to the significant spatial impact it would have on Lauderdale Primary School itself. It would require restrictions on their available parking area and further back in towards the school, so that was a key reason why it wasn't seen as a feasible option when compared with a signalised pedestrian crossing.

Ms BURNET - Again, on the signals: I note there's a slip road turning into - is that Rokeby Road or Acton Road?

Mr MUIRHEAD - On the South Arm Road.

Ms BURNET - South Arm Road, sorry. Is that signalised as well?

Mr MUIRHEAD - Correct. That is signalised. So, all three - the slip lane, across South Arm Road, across Acton Road - are all signalised.

CHAIR - And they will be disability-friendly signals?

Mr MUIRHEAD - Correct. The intersection is all DDA-compliant and that talks about the width of the ramps, the tactiles and the timing, the phasing of the pedestrian crossing as well.

CHAIR - Thank you. Any questions on page six? I have one.

Ms BURNET - Does it involve culverts?

CHAIR - Not yet, but we should ask. It's a very good question, drainage.

Ms BURNET - You go for it.

CHAIR - I had a question around the managing of congestion and the safety at school drop-off and pick-up times, and the turning bay for buses that are dropping off or picking up students from school. Is there room for a bus to be parked and another bus to access that turning bay?

Mr MUIRHEAD - Yes, I confirm there is enough room for two buses to enter that parking turn-around area simultaneously and one would be able to overtake the other. That is based on an analysis on a 12.5-metre rigid or a 19-metre articulated. It should be noted that it's pretty close for two 19-metre articulated. The analysis shows that, yes, it's possible and can be done.

CHAIR - We are dealing with schoolchildren and they sometimes make erratic decisions. If there is a footpath that they are meant to walk on, there's a good chance they may not stick to the footpath. Is there good visibility in that turning bay for bus drivers and other people in vehicles to be able to see any schoolchildren who may be straying from those walking paths?

Mr MUIRHEAD - As part of the analysis with our design vehicles being 12.5-metre rigid or 19-metre articulated, that assessment includes a safe-sight distance analysis. That includes safe-sight intersections to see cars coming and to make sure there's appropriate visibility for pedestrians as well.

Ms BURNET - My questions relate to stakeholder engagement. It probably goes to the appendix you have in relation to the consultation of feedback summary. I notice that there's only one Roads Tas Facebook page post. I'm wondering if you were satisfied with the feedback that you received in relation to this project?

Mr MUIRHEAD - I would say we are satisfied with the feedback received. That is the 17 emails and feedback forms across the information sessions, the school display and the council display. We believe that the feedback received is indicative of the broader community feel. I note your point on the one Roads Tas Facebook page. But it should be noted that there are also advertisements sent out - those are the ones that you can see there in the appendix in the newspapers, via Lauderdale Primary School newsletter and on our web page update, and unaddressed postcards to the nearby residents, which is the one we typically feel sees the most response because it directly addresses those that we think will be most directly impacted by it.

Ms BURNET - I note that congestion, pedestrian and cyclists' connectivity and safety and design features seem to be the most urgent or the most prominent concerns. Did you take into account most of those concerns?

Mr MUIRHEAD - Yes, we did.

Ms BURNET - How did you take into account those concerns, because we only have a summary here?

Mr MUIRHEAD - The designs that went out to the public consultation were done on the prelim design. The designs weren't quite well developed. Most of the points that were in there, a lot of them included into our design such as pedestrian and cyclists connectivity and safety and design and traffic flow.

An example of where we've made adjustments to our design, based on the consultation summary, is probably most notable in the changes we've made to property accesses. Admittedly, that's more through our direct engagement with landowners, not necessarily the consultation period, but we were able to take on the feedback of - we initially had some changes to accesses done in a certain way that would have made functioning in that front area of the property not great for that landowner. We were able to adjust where the property entrance - where the driveway would run through for their property and make sure that the accommodation works that we were doing were appropriate.

CHAIR - Subsequent to that question, I note that there will be trees removed, which have probably provided a noise barrier or a noise absorption for two of those adjoining landowners. I note that there have been noise investigations undertaken, but those noise investigations probably don't account for what it will sound like without all those trees alongside the road. Will there be subsequent noise investigations for those adjoining landowners after the trees have been removed? I think it will make quite a bit of difference to the residents there.

Mr MUIRHEAD - I will quickly talk about the noise, because I have a little more information on that based on the noise modelling and monitoring that has been done to date.

A noise assessment was done of the proposed upgrade. The project will realign the road closer to properties on the south side and, as you mentioned, those trees are coming out - resulting in - the model came out with an increase in traffic noise levels of one to two decibels for those sensitive receivers in that area.

Typically, changes in noise levels at that level would largely be imperceptible. This is based on the results of this modelling. For example, the noise modelling in the area identified that existing traffic noise level is between 50 and 55 decibels. So, that change was seen as fairly minor. The predicted change in noise levels is not expected to be perceptible, and so no noise mitigation works were recommended.

In terms of future noise monitoring, none have been scheduled at this point. In saying that, as with any of our road upgrade works, we are working with our impacted landowners, and if that noise issue, particularly with the reduction - I can't speak to whether that model actually factored in that reduction in trees; I'm not sure - so, if they're saying it is a perceptible noise difference, then that would be something we'd look to entertain.

CHAIR - It's a bit like looking into a crystal ball, really, isn't it? We don't know what that noise level is going to be once all the shrubbery and trees are removed for those. So, options will remain open for those landowners to be able to work with DSG if there is an issue with noise further down the track?

Mr MUIRHEAD - That's right. Yes.

Mr MIDDLETON - If I may, I should add that it's been proven that vegetation doesn't really reduce noise; it acts more as a visual screen which increases people's perception that noise isn't an issue. The vegetation has to be very dense to actually provide a small reduction. That's been proven time and time again. Those trees - whilst they've got big trunks, there's a lot of space alongside each of those trunks, so there's a lot of space for the noise to get through.

CHAIR - Okay. Can I get you to run through the flood mapping of the area and the drainage and the culverts, which are part of the project?

Mr MUIRHEAD - Yes, absolutely. Throughout the design development, we developed a suitable system for directing stormwater to the appropriate legal points of discharge. Near the area there are four legal points of discharge, which we are maintaining. These works are just connecting with the existing points of discharge. This involved consideration of where discharge is directed and increases in the flow or into the considerably more impervious pavement. So we need to address that.

The proposed intersection upgrade will provide a significant increase in the impervious area. To avoid the construction of an additional basin along Acton Road, the proposed stormwater conveyance network will divert as much surface water as practicable down the South Arm Highway to an upgraded outfall into Ralphs Bay. The diversion of catchment flows is proposed to be achieved by incorporating new pits and pipes along Acton Road that will divert the road runoff back to the South Arm Highway for as large an extent as practicable.

Additionally, catch drains on Acton Road above the cut road batter will divert as much catchment as practical back to the South Arm Highway.

There will be two upgraded culverts to receive external catchment flows that carry water across the South Arm Highway carriageway and these are designed to cater for a one per cent AEP storm event. That's a one in 100 year. The proposed road drainage system will provide at a minimum, that it was one per cent AEP for those high stormwater structures. Overall, across the project, it will provide a minimum five per cent AEP drainage capacity and up to one per cent AEP in most locations, with the remaining overland flow accommodated within the road's drainage system.

Based on the flood modelling that was conducted - and we looked at the flood models developed by Clarence City Council as well, so we're working in coordination with them - no adverse flood impacts to adjacent properties are anticipated from the proposed design and the upgrades to the road drainage system that we're putting in with those pits and pipes along Acton Road. The culverts on South Arm Road are likely to generally provide improvements to the drainage system in the area.

Ms BURNET - Is there any inundation near the detention pond? Is there any likely inundation through, is that Ralph's Bay?

Mr MUIRHEAD - Based on the review, there's no likely inundation in that area, no.

CHAIR - Any further questions on page seven?

Ms BURNET - I'm curious. You are preparing for a one in 100 year flood event or storm event. Is that the standard at the moment? Is that what we're catering to as a standard thing by DSG with these kinds of upgrades?

Mr MUIRHEAD - Yes. Your design flood levels change sometimes for the structure that you're designing for and the areas where it's at. For example, these major culverts that we're putting in where we're looking to divert the water across the road have a more stringent design criteria, so that one in 100 is standard. Whereas sometimes minor, if you're in a location where perhaps you might just have a swale drain on the side, it would be more common for that to need to comply with a less stringent criteria, whether it's a five per cent or 10 per cent AEP.

Ms BURNET - Does there need to be any sort of upgrade of the detention pond once it's built?

Mr MUIRHEAD - Yes. The detention pond, where that is going in - sorry, I will just scramble through my notes to talk about it properly.

CHAIR - Take your time. It's fine.

Mr MUIRHEAD - The bioretention basin is new - it's not an upgrade of the existing. We are putting that in there to address water quality to make sure that we are maintaining our water quality requirements given any discharge into Ralphs Bay. The new bioretention basin is on the southern side of the South Arm Highway at the easternmost extent of the works prior to the outfall into Ralphs Bay. It's intended to treat the majority of the runoff from the paved road surface.

Ms BURNET - Does it articulate with any of the other properties? Will they use that outlet as well?

Mr MUIRHEAD - The catchment area to the north may include some of those surrounding properties as well, depending on the catchment that goes into the road.

What our modelling has done is largely to address the increase in the impervious area from the project. I can't talk too much to the runoff from other properties, but I know that it's adequate to account for where we expect the increase in runoff to come from the project.

Ms BURNET - What levels of requirement are you reaching for the bioretention pond to meet water quality requirements? It's a fairly sensitive area.

Mr MUIRHEAD - As you mentioned, it's located within the Ralphs Bay Conservation Area which is managed by the Parks and Wildlife Service. As part of that, we are doing a reserve risk assessment. We've submitted a reserve risk assessment which gets conducted by the Parks and Wildlife Service which assesses the risks of the work being done within the conservation area. They assess that as well and provide further approval that, 'Yes, this works and does not do any undue harm to the conservation area,' basically. It's also a part of our EPBC referral, so we talk about our drainage outflows. We talk about how the bioretention basin is there to allow the water quality to be at a certain level so that we're not impacting the waterways in that area or any species that live within that area.

Ms BURNET - I didn't see any reference to that. I might have missed it in the report that you provided us.

Mr MUIRHEAD - It's on page - it's in Additional Impacts next to Heritage Assessment. It's in 7.2. I call it out as bird life, swift parrots, because that is the key reason why we're referring to EPBC.

Ms BURNET - But you're not talking about the bioretention pond at all and going into Tasmania Parks and Wildlife Service's land, which seems a bit odd. That hasn't been named up, unless I've missed it somewhere in what's been presented to us. Because, if you have suggestions or evidence on how this impacts on Parks, I believe that would be useful to table for the Committee's consideration.

CHAIR - It would make for a more considered submission. What in particular are you requesting? We're looking at the potential effects and the analysis that's been undertaken by the Department of whether or not they could potentially be a risk to Ralphs Bay through the water coming through.

Ms BURNET - Yes, and if you're putting in a bioretention pond in a conservation area, what considerations have occurred?

Mr Hennessy, is it okay now to have that considered as part of these works?

SECRETARY - If it is part of the works, we have to take it.

Ms BURNET - Okay.

CHAIR - Any further questions? We're still on page seven, but we can move to page eight.

We will move to the bird habitat maybe when we get on to the next page.

I was going to ask a question regarding the ongoing negotiations with the adjoining landowners. I had the impression from the submission that there may be some unresolved issues at this stage with the acquisition of property. Can you run us through where those negotiations are up to?

Mr MUIRHEAD - They're worded that way in such that the land acquisition hasn't been formalised at this point, so it hasn't been signed off by the Minister for Infrastructure or -

CHAIR - The Valuer-General?

Mr MUIRHEAD - Yes, exactly. In terms of the negotiations, we have developed our accommodation works, so the works that we're doing with all those nearby adjacent owners in consultation with them, but they have not all been signed off yet as we are still progressing the land acquisition formalities themselves.

There are no specific issues that have been raised, that have been called out, as an issue from landowners to the projects. The one that was mentioned before was the access arrangements which we have made some changes to address. No, there were no particular

issues. I suppose I've left it there as negotiation as they are not finalised as we're still working through that process with each of the landowners.

CHAIR - A corner site of the intersection is owned by government or Crown already. Is that correct? Can you run us through that?

Mr MUIRHEAD - Yes, that's correct. That vacant lot that you can see to the north-west side of the intersection, there are two titles there that are both currently owned by the Crown and managed via Department of State Growth. One, because we will be doing a lot of the intersection upgrade work themselves, will be going into that area. There's also an area off to the side. Basically, we wanted to make sure that there was enough space for us to shift across that we weren't going to be impacting Lauderdale Primary. It also provides opportunities, once the project is all approved and progressing - as you mentioned we've had to remove some trees - it does provide opportunities, and we have space there in the future for potential revegetation.

CHAIR - Can you talk us through the lighting at the intersection as well - or the proposed lighting at the intersection? I couldn't see anything in the submission about that, but if you could provide that for the record?

Mr MUIRHEAD - There is street lighting included in the design at the intersection. What I don't have today, and I can take on notice, is specifically how many streetlights that are going to be there at the intersection, but street lighting is included.

CHAIR - Also the programming for those signal lights and how they will work, for the record, i.e. timing, whether or not they're sequenced or programmed for peak times or less times.

Mr MUIRHEAD - The sequencing of those traffic lights will be managed in coordination with our ITS team. As part of the works being complete there will be the detection loops included in each of the lanes and the Bluetooth link up so that all that data is available so that the phasing of the traffic lights can be done appropriately to manage peak times and off-peak times.

CHAIR - Thank you. The speed limit will be how many kilometres an hour? And there will be a dedicated 40 kilometres per hour zone area for the school, because it's close to a school, is that correct?

Mr MUIRHEAD - That's correct. So, there is the 40 kilometres per hour for the school zone. It's 60 kilometres per hour along South Arm Road posted speed limit, and posted speed limit of 70 along Acton Road.

CHAIR - Acton Road: has there been consideration to maybe having that at a 50-kilometre zone going into that intersection, and slowing down for lights? Has there been an assessment done on that?

Mr MUIRHEAD - As part of the design, what is factored going into that - although it is posted as a 70-degree, as you're going into that intersection, it's being considered as essentially an operable speed of 50 kilometres as cars naturally decelerate heading into that intersection. So you don't necessarily reduce your speed limits heading up to these intersections, as cars

naturally do that. It's part of safe driver behaviour. I suppose that's why the reduction in speed limit isn't progressed along that area of Acton Road.

CHAIR - Right. So it will stay at 60 kilometres an hour, but 40 during school hours?

Mr MUIRHEAD - 70 on Acton and 60 on South Arm, minus the school zone still in place and the school zone unchanged to existing.

CHAIR - Thank you. Any more questions on page nine?

Ms BURNET - In relation to, or further to, your lighting question: clearly, there's street lighting for the intersection, but regarding lighting for pedestrians and pedestrian pathways, what has been proposed for that, since this is an opportunity to make it safer for pedestrians?

Mr MUIRHEAD - I will have to take that one on notice.

Ms BURNET - I wanted to go back to a question again from page eight, Chair, if you don't mind. I note that there's activities currently underway, additional Indigenous heritage investigation near Ralphs Bay. Is that in conjunction with Parks and Wildlife as well?

Mr MUIRHEAD - That's correct.

Ms BURNET - Can you outline what you're looking at there, please?

Mr MUIRHEAD - I can, yes. During design, an Aboriginal heritage assessment was conducted which included a regional search of the Aboriginal Heritage Register within the south-east region of Tasmania where the project is located. The search found that there are no registered Aboriginal heritage sites within the Acton Road intersection. However, there is a cluster of shell middens along the southern boundary of the Acton Road junction, the closest of which is approximately 50 metres from the project corridor that we're talking about. It's basically on the northern shoreline of Ralphs Bay, where those middens are in the register.

So, while initial assessments advise that there is generally a low potential for undetected Aboriginal heritage sites to occur within the intersection upgrade area, additional investigations will be required. These investigations will also be an input into the reserve activity assessment that we talked about, as it's some of those middens up in that Ralphs Bay Conservation Area that we're talking about, near the bioretention basin. That is still outstanding because it was kind of a secondary investigation. We're hoping to get the findings of that in early 2026.

CHAIR - Is there a plan B? Whether or not if this does end up becoming an issue for this project, is there a plan B?

Mr MUIRHEAD - It is very hard to determine, because it really is dependent on what artefacts are found. There are separate, I suppose, management strategies that need to be put in place, depending on what is found. I'm probably -

CHAIR - I'm just remembering that Brighton bypass area, with the middens there - trauma - insofar as having that plan B or an alternative, if it's found that that could be disturbed and really shouldn't be - if there is a plan B?

Mr MUIRHEAD - Well, I suppose, the key thing for us is once we get the results of that investigation, we will be able to determine what actions are required. Sometimes those actions are additional management plans in place in the construction period. Sometimes they need to be more extreme, such as adjustments to the design itself. It's hard to comment without the conclusion of them at this point.

CHAIR - Yes, and that's part of that contingency -

Mr MUIRHEAD - Exactly. That's certainly an item that contingent risk would look to address.

Ms BURNET - From my perspective, it's useful to have a clear indication as to what you might be doing to mitigate or reduce the impacts on how a project might be considered.

CHAIR - Any more questions on page nine?

Mr HARRISS - One around traffic management during construction: do we know what that will look like? Is that designed by the Department or is that a contractor?

Mr MUIRHEAD - As part of the specification that goes out to the contractor, we include certain traffic management requirements that the contractor will need to adhere to around road access. For example, in the specification we have drafted for this project that talks about peak times and out-of-hours, a minimum of a lane in each direction needs to be provided on Acton Road and South Arm Road.

On contraflow arrangements, impacts that would require only one lane access on those roads would only be allowed in off-peak times. There's a requirement to maintain access to Lauderdale Primary School at all times and to allow for bus operations to flow through there at all times, as well as the public bus, and that appropriate pedestrian footpath connectivity is maintained at that time.

These are all requirements that we include in the specification. Then it sits with the contractor to put together their traffic management plan that complies with those requirements that are included in the specification.

CHAIR - As a subsequent question: will those traffic management plans be consulted with the school community? Will there be an opportunity for the community to undertake, say, car sharing or different ways of getting their children in and out of that school, or for large work to commence during school holiday periods and so forth? Will all that be articulated with that school community? It's a 12-month project; it's a long time with a lot of disruption.

Mr MUIRHEAD - Yes, absolutely. As part of the contract that will go out, Lauderdale Primary School is identified in our engagement plan as clearly a key stakeholder that needs to be worked with closely throughout the construction period. That will require the successful contractor to coordinate the staging of their works with Lauderdale Primary School, particularly around the works in the school itself and then on the roads. It's just about maintaining those access requirements and allowing for those peak drop-off and pick-up periods.

In terms of the strategies for the school to employ throughout that construction period, that will be something that will be a moving piece throughout the construction as the impact to the school will be different as it progresses. There will need to be a continual feedback loop between Lauderdale Primary School, the contractor and the Department all being on the same page about what the impacts are for the upcoming stages of work, and how they should be best addressed and making sure, as you mentioned, that they are all appropriately communicated ahead of time to school, parents and the broader public for the road impacts.

CHAIR - I was really surprised today when we had our site visit at the amount of car parking access there is at the back of the school near the gymnasium area. Will there potentially be another drop-off/pick-up point that is used during that 12-month process when the other one is being upgraded? Are there any designs to form another side, of sorts, because there's a lot of space there?

Mr MUIRHEAD - That hasn't been determined yet. I suppose -

CHAIR - It will be up to the contractor, I suppose?

Mr MUIRHEAD - Yes, it will be up to the contractor and up to the school. That isn't something that we have stipulated in any of our documents besides the fact that they need to coordinate closely with them. As you said, there are certainly those opportunities to put in there so that the appropriate balance can be reached of allowing works to progress at the right pace, so that it doesn't take longer than it needs to, whilst still making sure that the school can operate appropriately in that pick-up and drop-off - doesn't become too much of a nightmare for the parents there.

CHAIR - Ms Rattray would be very disappointed if I didn't ask this question around TasNetworks and what kind of changes will need to be made to power lines, and whether or not you've booked that in with TasNetworks already? She'd be very disappointed if I didn't ask that question.

Mr MUIRHEAD - There are overhead TasNetworks cables that can be seen on the north-western end part of the intersection as well as on the south. These poles are required to be relocated. Essentially, they will be reallocated just back to allow for the widening of the roads on both sides. So they will more or less follow their existing alignment, just pushed back.

The coordination with TasNetworks, all the TasNetworks - the design has been completed and coordinated with TasNetworks, who have put through their works of offer and the easement plan required for one of the landowners. The works themselves,to my knowledge, have not been booked in yet but all the work on the design side has been complete.

CHAIR - I must say that TasNetworks did an incredible job getting the power back on in Stieglitz too. They really outdid themselves. Any more questions on page 10?

Ms BURNET - I have a question in relation to the =school carpark upgrade. There is an extension to that western aspect of the school carpark, so that the road alignment sort of heads north-west, doesn't it, on Acton Road? What happens with the school? Is there a change in the boundary, like the titles?

Mr MUIRHEAD - That's correct. This is part of what we are progressing through with the land acquisition at the moment. Basically, where the existing Acton Road is, even though it is a road casement managed by Clarence City Council, it is technically an old long standing private freehold title. The section that we are impacting needs to be acquired via the Public Trustee, which is basically the section - it's close to where we are doing that carpark upgrade. From that point of acquisition, we will then be handing the land to the Department of Education for their management. There will be an agreement between the departments for that exchange.

Ms BURNET - We're likely to see a title change come through parliament?

Mr MUIRHEAD - I'd have to [inaudible] into that process.

Ms BURNET - Is it usual that that kind of work would be done by State Growth in relation to carpark upgrades? How does that work? If it's DECYP or another department?

Mr MUIRHEAD - In a very simple case, where our impacts on them would have been minimal and they were next to a road; it wouldn't be something that would typically be done in a road intersection upgrade. The reason why it is accommodated in the project is because of the significant impacts that we are already doing to their access and, because of the need to shift the location of the intersection, there was an opportunity for additional space. It is likely because of the existing state of the pavement in that school carpark, that the works would lead to cracking and it was likely that we would need to repave that area of carpark, regardless.

Ms BURNET - As a compensation?

Mr MUIRHEAD - Exactly, the same as if we impacted anyone's access driveway. Since we were going to need to do those works anyway, it is seizing an opportunity for that additional space and works already being done on site.

Ms BURNET - Thank you. I was certainly impressed from the plans that it looks like there's greater clarity in how pedestrians would access the school via that carpark. Can you explain what you're intending there?

Mr MUIRHEAD - I can.

Ms BURNET - Quite often carparks don't really have a clear pathway for pedestrians.

Mr MUIRHEAD - On the accesses for the school, there are currently three existing pedestrian accesses to the school within the site extent: one off South Arm Road, by the eastbound bus stop; and two on Acton Road, north of the existing entry to the school carpark. Post construction there's going to be four pedestrian access points into the school.

The existing access from the eastbound bus stop on South Arm Road will be upgraded with a new pedestrian gate provided that will match the new black picket fence at the revised boundary, and there will be a raised wombat crossing provided in the school carpark directing students to the footpath by the school.

A new access will be provided immediately adjacent to the new carpark extents in the approximate location of existing the school staff carpark. This access will have a new pedestrian gate provided at the revised boundary that will match the black picket fence and

again, another raised wombat crossing will be provided in the school carpark directing students to the footpath by the school.

Then the other two existing entryways will remain unchanged but adjusted in location based on the intersection works.

CHAIR - Page 10.

Ms BURNET - On our site visit we were shown where the road will be widened on South Arm Road. Going to that southern aspect of the works and the South Arm Road widening, it looks like there's going to be five lanes, possibly six lanes across there at the widest point with signals, but the widening of the road will take out some of the trees. Can you explain in relation to the trees and the impact and trying to reduce that impact on swift parrot habitat?

Mr MUIRHEAD - Yes, I can. As a high-level summary for the trees, across the project there's 24 trees to be cleared. So that's various eucalypt trees. There are going to be eight that are able to be retained and protected on site with tree-protection fencing.

If I can just talk to, unfortunately, why these have to be impacted: it is largely driven by the - as we are including the two through lanes on South Arm Road going eastbound and westbound, that increases the road footprint, and with Lauderdale Primary School to the north, that wasn't an intent to push too far north into that area, or east for Acton Road, so that pushes the road south, which does impact a lot of those trees.

As part of the design, there was an initial natural values assessment and arborist assessment completed to inform the initial concept design, and a subsequent update of assessments based on the detailed design, so that way we could account for the actual footprint and the potential disturbance footprint from the construction works themselves.

From this values assessment, the assessment findings found that for swift parrot, which are an EPBCA critically-endangered species, there's the 24 habitat trees - 12 are foraging trees only, and 12 are foraging trees with potential nesting hollows. There's also the blue-winged parrot, which is a vulnerable species for EPBCA. There's clearance of 12 potential nesting habitat trees of the blue-winged parrot. So, that's a total of 24 trees to be cleared with impact to potential nesting or foraging habitat. There were eight that we were able to avoid impacts through localised earthwork considerations, and we will be putting up tree-protection fencing for those during all phases of the work.

If I can just talk to that impact assessment for those trees: the significant impact assessment completed for the Acton Road intersection - the significant impact criteria concluded that the current design is unlikely to breach any EPBCA-significant impact criteria in relation to these matters of national environmental significance. The assessment against the significant impact criteria for the vulnerable swift parrot and blue-winged parrot concludes that the project will not have a significant impact to these species.

Part of the reason for that is these trees are very unlikely to be used for nesting. This is due to the proximity of these trees to a busy highway and school. In combination with the abundance of better nesting habitat in the broader landscape and the higher likelihood of competition from species with a greater tolerance for urban environments in these trees that

we're getting rid of, there's the Meehan Range 200 metres to the north that is a more suitable, I suppose, habitat.

As mentioned before in the opening statements, although the outcome of that study showed that we wouldn't have significant impact to those species, we still referred our self-assessment to DCCEEW [Department of Climate Change, Energy, the Environment and Water] by the EPBC, and we are waiting on their determination to see if they agree with our self-assessment or not. We're expecting the outcome of that in early January - 6 January is the date.

Ms BURNET - If they want further information, then you will need to put that on hold?

Mr MURIHEAD - That's right. If they need - they might come back and say that specific controlled actions are required, and we may need to take some time to ensure that those controlled actions are adequately planned into the project, which is a potential schedule risk for the project. Until that outcome of that is there, that risk still exists.

Ms BURNET - You spoke about the Meehan Range being 200 metres away. Is that where the closest foraging trees are, or is that where the boundary of the Meehan Range starts?

Mr MUIRHEAD - No. I suppose that was just talking to the fact that there is an abundance of foraging and likely nesting trees in close vicinity, compared to these trees which are on quite urban environment comparatively.

Ms BURNET - It's not an urban environment really, is it? It's near a conservation park and it's not really built up in this area.

Mr MUIRHEAD - That's true. I guess that's fair to say. It was written like that in the values assessment as it was talking about a string of trees at the intersection, when you look at a satellite, compared to the broader area.

Ms BURNET - My last question is, you talked about eight trees, presumably *Eucalyptus ovata* or -

Mr MUIRHEAD -Yes, *Eucalyptus globulus* and *Eucalyptus ovata*.

Ms BURNET - So, eight *Eucalyptus ovata*, or -

Mr MUIRHEAD - I'm not sure on the mix of those eight, of those two.

Ms BURNET - Do we know if they're trees for essential foraging or -

Mr MUIRHEAD - Yes, all those were identified as potential foraging. So those eight would have been foraging trees that we will be able to maintain. They may have been potential nesting trees. I'm not sure if they were part of that count or not.

Ms BURNET - Perhaps, Chair, could we have that information on notice?

CHAIR - Sure.

Ms BURNET - Thank you.

Mr MUIRHEAD - That's for the eight trees that are being retained.

Ms BURNET - As well, for the 24 trees it would be good to know what type of tree and tree habitat they are and for which species.

CHAIR - Do we know whether or not the swifties have actually nested in those tree areas before? Or is there the potential for them to in the future? Do we know if they have nested before?

Mr MUIRHEAD - Based on the surveys that were conducted as part of the natural - there was no evidence of existing nesting in those trees. It was more they had the potential to be nesting environments because they had hollows, essentially.

CHAIR - Okay. Same question: is there a potential plan B if it is found that those trees need to remain because they are potential nesting and that's what the results come back from the EPBC investigation? Is there a plan B?

Mr MUIRHEAD - I suppose the plan B would be making sure that we're taking the advice on from DCCEEW before progressing with the project and, if it comes as controlled actions, ensuring that it's similar to the environmental one. It's hard to plan out what that plan will be without knowing what the outcome of their assessment will be, or to say that the outcomes of that assessment will be; we will ensure they are incorporated within the management of the project before progressing to construction, certainly.

CHAIR - Any questions before we move on to page 11?

Ms BURNET - I suppose before we go on, I'm not sure of the school's area, but are there any significant buildings along that side of the school or significant concerns in relation to the hydrology or anything? I'm curious to know why that wasn't considered - looking at the school side rather than taking some of that environmental consideration. I don't live at Ralphs Bay, but - and Lauderdale, but I would have thought that they were pretty important for the school community as well.

Mr MUIRHEAD - In terms of impacting to the north rather than the south?

Ms BURNET - Realignment; yes, that's right.

CHAIR - From here, not from here.

Ms BURNET - Yes.

Mr MUIRHEAD - I know that assessment was looked at in the initial option assessment. I will have to take it on notice to get back to you on that.

CHAIR - Thank you. Any more questions on that?

Ms BURNET - No, thank you.

CHAIR - Okay. We might move on to funding and costs. Do you have a question, Mr Harriss?

Mr HARRISS - Yes, around the contingency and escalation. The contingency at 19 per cent to 30 per cent - is that high?

Mr MUIRHEAD - It is high. The reason for that high contingent amount is partly because the outcome of a lot of these investigations that we just spoke about are still - the outcome of them is still to be determined. Also, as mentioned in the opening statements, there's the standard contingent risk items around construction.

Mr HARRISS - The escalation: it mentions that the Australian Government determines the escalation in project cost estimates as part of funding submissions from the Department of the Australian Government. Then it goes on to say that the Department has not diverted resources into challenging these Australian Government requirements. From previous projects, do we know how that sits with the escalations and percentages given from the Australian Government? Do they blow out or have they? Do we have any data on previous projects?

Mr van der HYDE - The projects that I've been involved in, it hasn't been consistently designed because it's quite situational dependent. It's difficult to say whether those contingency estimates from the Australian Government should be revised or not. Some projects have been quite within the contingency and escalation budgets. I am not too sure.

Mr HARRISS - No, it would be interesting to understand whether the escalation percentages obviously provided by the Australian Government get eaten into, I suppose.

Mr van der HYDE - It's quite seldom that we see the P90 estimates. We asked the Australian Government for 80 per cent of the P50 estimate to be released to us. Quite often I see us getting away with the P50 amount and not needing to access the P90.

CHAIR - It's your worst case scenario, isn't it, the high stakes.

Mr van der HYDE - Yes. Which tells me that we are not exceeding as often.

Mr HARRISS - Standard is to get your P50. In this case the 672.

Mr van der HYDE - Correct.

CHAIR - Did you have any more questions on that? Just on that, I've noticed in the contingency 8.1 and then the 8.2 the escalation, and part of the events or the contingent risks are due to market saturation. There's market saturation in the contingency, but then there's also market conditions, which is part of the escalation costs. Is that a duplication? They're both to do with market conditions. It's in the contingency as well as the escalation. Is that a duplication or are they two kinds of market analysis? Did that make sense?

Mr MUIRHEAD - I think I understand what you are saying. I suppose the difference is the item that's included in the contingent risk is more to identify a specific situation. If we had lots of projects going out right now, which would, regardless of price escalation of the industry at the time, it would mean that tender prices would come in higher because there's so much

work going. So, it's a separate item than general price escalation that you'd see in the industry, it's to deal with a specific event.

CHAIR - It must be hard to differentiate when you're trying to figure out what's part of the contingency costs and then what's part of an escalation cost, and which buckets they would potentially come out of, I imagine.

Mr MUIRHEAD - It is true. Usually, the contingent risk items come out of our risk workshops. We would do a risk workshop in which you call out your specific risks that you think might impact your project. Then in your cost estimate you would put a specific budget against each of those key contingent risks. In this case it was called out as a contingent risk in our risk workshop, and then your escalation gets applied to the total estimate after you have factored in those contingent reasons. I can see what you mean.

CHAIR - They're dependent on each other.

Mr MUIRHEAD - It's important to make sure that you don't have that duplication, which really comes down to your definition of what you put into your contingent risk.

CHAIR - Okay. Any further questions on page 11?

Mr HARRISS - Just one. The base estimate includes acquisition costs, noting - back on page eight - that ongoing consultation is with the Office of the Valuer-General (OVG) regarding that. How does that sit and are we comfortable at the moment that the right allocation's been allowed?

Mr MUIRHEAD - In the cost estimate that goes through, they do it based on looking at the total area that we're looking for acquisition and looking at the function of that area. As part of our cost estimate that gets put together we would look at what that particular style of land has been valued at, at recent projects. Whilst the OVG valuation is still outstanding for those items we have confidence that the estimate of those areas remains the same. We have confidence that the value of those areas hasn't changed to any significant amount from the point where this estimate was put together.

Mr van der HYDE - I'd like to add that the OVG is quite helpful nowadays in providing us with swift estimates ahead of the formal valuation, which helps a lot with the estimating of our projects.

CHAIR - Page 12, any questions? I think we've run through a fair bit of this already. Page 13? Okay.

Before you leave the table, I would like to ask you some additional questions and if you can just answer, as the submitters, a yes or no.

Does the proposed works meet an identified need or needs, or solve a recognised problem?

WITNESSES - Yes.

CHAIR - Are the proposed works the best solution to meet identified needs or solve a recognised problem within the allocated budget?

WITNESSES - Yes.

CHAIR - Are the proposed works fit for purpose?

WITNESSES - Yes

CHAIR - Do the proposed works provide value for money?

WITNESSES - Yes.

CHAIR - Are the proposed works a good use of public funds?

WITNESSES - Yes.

CHAIR - As advised to you at the commencement of your evidence, what you have said to us here today is protected by parliamentary privilege. Once you leave the table, you need to be aware that privilege does not attach to comments you may make to anyone, including the media, even if you are just repeating what you said to us. Do you understand that?

WITNESSES - Yes.

CHAIR - Thank you very much for coming in today. We appreciate it.

The witnesses withdrew.

The Committee adjourned at 3.43 p.m.