

**REPORT ON PROCEEDINGS BEFORE**

**PUBLIC WORKS COMMITTEE**

**IMPACT OF THE WESTERN HARBOUR TUNNEL AND BEACHES  
LINK**

**CORRECTED**

**Virtual hearing via videoconference on Friday 17 September 2021**

**The Committee met at 9:30.**

**PRESENT**

The Hon. Daniel Mookhey (Chair)

Ms Abigail Boyd

The Hon. Sam Farraway

The Hon. Ben Franklin

The Hon. Shayne Mallard

The Hon. Tara Moriarty

The Hon. Mick Veitch



**The CHAIR:** Welcome to the second hearing of the Public Works Committee inquiry into the impact of the Western Harbour Tunnel and Beaches Link. Before I commence I acknowledge the Gadigal people, who are the traditional custodians of the land on which Parliament sits. I pay respect to Elders of the Eora nation past, present and emerging, and extend that respect to all First Nations people who are present or watching. Today's hearing is being conducted as a fully virtual hearing. This enables the work of the Committee to continue during the COVID-19 pandemic without compromising the health and safety of staff or members. Today we will be hearing from community representative groups and experts from environment, marine and health fields, as well as representatives from the school community.

Before we commence I will make some brief comments about the procedures for today's hearing. While parliamentary privilege applies to witnesses giving evidence today, it does not apply to what witnesses say outside of their evidence at the virtual public hearing. Therefore, I urge witnesses to be careful about comments you may make to the media or to others after your complete your evidence. Committee hearings are not intended to provide a forum for people to make adverse reflections about others under the protection of parliamentary privilege. In that regard, it is important that witnesses focus on the issues raised by the inquiry terms of reference and avoid naming individuals unnecessarily. All witnesses have a right to procedural fairness according to the procedural fairness resolution adopted by the House in 2018. There may be some questions that a witness could answer only if they had more time or with certain documents at hand. In those circumstances witnesses are advised that they can take a question on notice and provide an answer within 21 days.

Today's proceedings are being recorded and a transcript will be placed on the Committee's website once it becomes available. The hearing is also being broadcast and saved on Parliament's YouTube channel. Finally, a few notes on virtual hearing etiquette to minimise disruptions and assist our Hansard reporters. I ask Committee members to clearly identify who questions are directed to and I ask everyone to please state their name when they begin speaking. Could everyone please mute their microphones when they are not speaking? Members and witnesses should avoid speaking over each other so we can all be heard clearly.

**MARIA BYRNE**, Member, Australian Marine Sciences Association, affirmed and examined

**PAT HUTCHINGS**, Member, Australian Marine Sciences Association, affirmed and examined

**WILLIAM RYALL**, Director, Ryall Environmental, affirmed and examined

**The CHAIR:** I invite each of the witnesses who wish to make an opening statement to make a short opening statement of no more than three minutes, perhaps starting with Professor Byrne and/or Dr Hutchings.

**Professor BYRNE:** I am going to give a submission on behalf of Dr Patricia Hutchings and myself, Professor Maria Byrne, combined, because we are both representing the Australian Marine Sciences Association [AMSA]. We are marine biologists. Dr Hutchings is expert on benthic communities, which are dominated by polychaete worms, which are her expertise, and Dr Hutchings has worked extensively on the biodiversity of Sydney Harbour. She led the port survey for marine invasive species for the Sydney Ports Authority and was a member of the ecology panel for the Sydney Olympics. I have worked on invertebrates, including sea urchins and oysters, in the Sydney Harbour with respect to their response to environmental stresses. I did the ecotoxicology of the Sydney Olympic Park for the Sydney Olympics.

We are here to talk about the marine environment; that is the terms of reference we address. The environmental impact statement [EIS] and submissions report did not sufficiently consider the impacts of construction of the immersed tube tunnel [ITT] to the marine environment and species throughout Sydney Harbour caused by the redistribution of contaminated and non-contaminated sediments. Highly toxic chemicals will be released from the fine particles and certainly from the sediment pore water, and the release of a potentially toxic cocktail into the water was not at all considered. The water quality of Sydney Harbour has improved immensely over recent decades since the remediation of Homebush Bay and other measures.

The harbour is now one of the most diverse in the world in terms of number of species, many of which live in the sediments. In many areas seagrass and kelp have returned, including in the area of the tunnel construction. This renewed diversity has absolutely thrived because contaminants originating from the industrial history of Sydney Harbour are sequestered in the sediments, and this is where they should remain. The tunnel project risks the reversal of all these positive gains we have had for our very, very iconic Sydney Harbour. It is well known that the harbour sediments have high levels of contaminants. These are persistent; they will be with us for hundreds of years, and we cannot do anything about that. This includes sediments in the corridor of the tunnel in the construction support sites, and this was shown in the contaminants report—the Golder-Douglas report of 2017. This report was kept confidential during the EIS stage. This demonstrates lack of transparency.

The mixture of contaminants in the sediments includes banned and poisonous chemicals that are carcinogenic to humans [inaudible] dioxins and biocides such as copper and tributyltin [TBT], which are highly damaging and, in fact, cause instant death to many marine animals. The sediments at both ends of the tunnel corridor where the dams will be made are highly contaminated. The sediments at the Berrys Bay support site contain amongst the highest levels of tributyltin, dioxins, mercury and many more known for marine sediments and are well above the national quality guideline levels. This is because this area was a shipbuilding yard for years where the boats were cleaned, releasing the anti-foul paint with the tributyltin into the harbour. Tributyltin is a biocide; it kills marine embryos and interferes with skeleton formation and reproduction in molluscs. I have seen many TBT oysters and they are not good to look at—that is an aside.

The organisms that live in the sediment form the bottom of the food chain as food for fish and prawns. The disturbed sediments are being eaten by benthic animals and the pollutants retained in their bodies will just move up the food chain as these contaminated animals are eaten. We already know that fish in the area of the tunnel construction are contaminated—the Government tells us that we should not eat them—and that has been there for a long time, and the birds which eat the fish will be spreading the contaminants far and wide.

**The CHAIR:** Professor Byrne, could I ask you to please come towards the end of your statement?

**Professor BYRNE:** I am combining it for the two of us.

**The CHAIR:** Sure, but still—

**Professor BYRNE:** There is no way that the silt curtains and the backhoe dredge will contain the sediments because the area is dynamic with strong water movement. The tunnel construction will disturb the sediments, and the movements between Berrys Bay, Snails Bay, White Bay and the Rozelle Rail Yards have a high potential to disturb and redistribute sediments. Measures to contain and track those plumes are not convincing, nor is the assumed loss of fine sediments. There is no measure to monitor contamination in the water.

Offshore disposal is also of great concern. There were additional analyses that were commissioned for the Commonwealth, but this information was not provided. We have particular concerns for the contaminated sediments by dioxins and tributyltin and how they will be managed with respect to offshore dumping in White Bay on barges. That containment needs careful management. In summary, it is clear that there have been procedural deficiencies with the western harbour tunnel [WHT] process, including an inadequate EIS, incomplete environmental risk analysis with respect to the marine environment, and lack of transparency. The revised environmental measures do not include measures to address the risk of environmental poisoning—that is really important. The risk analysis will need to be revisited, with special attention to the design and management of the dredging program and construction support sites and offshore disposal, improved sediment sampling along the construction site to establish rigorous baseline data prior to construction, and plans for monitoring. We note that monitoring and recovery programs were not detailed. Thank you very much for listening.

**The CHAIR:** Thank you, Professor Byrne. I invite Dr Ryall to make an opening statement, if you so wish.

**Dr RYALL:** Yes. I am a retired environmental scientist and I provide advice mostly, these days, to community groups. My expertise is in the assessment, management and remediation of contaminated land, which includes sediments. I have had a lot of experience with remediation of sediments in most of the big sediment remediation projects undertaken in New South Wales. So my submission is totally devoted to the contaminated land. Onshore, the environmental impact statement and the subsequent submissions report identified 18 potentially contaminated sites along the route of the bored tunnel in sandstone rock. However, no investigation was carried out in those areas. Consequently, the environmental impact of these cannot be obtained. In my view, this is a fatal flaw of this EIS and the Environment Protection Authority [EPA] should have required revision of the EIS to address these issues.

With respect to the marine works that Professor Byrne stated—I agree with all of her comments, to my ability as a non-specialist—the dredging is going to be carried out on almost one million cubic metres of sediment. That is approximately 400 Olympic swimming pools of sediment that is going to be removed. Of that, the EIS states that 142,500 cubic metres of this sediment is contaminated. This aspect of the EIS is totally wrong, and I will explain that in a minute. But the problem is that the EIS says that the management of and minimisation of sediment dispersion into Sydney Harbour will be maintained by shallow silt curtains two to three metres floating from the surface. However, the water depth within the alignment of the immersed tube tunnel ranges from 11 to 15 metres. The disturbance of the sediment obviously takes place at the sea floor, which is some eight metres at least below the level of the silt curtain.

Professor Byrne rightly said the currents are strong in these areas and the sediment will be swept away into the waters of Sydney Harbour. The impact of this is not addressed by the EIS. Furthermore, the EPA, in their review, has not carried out a critical review of, particularly, the sediment in the ITT. It did carry out a very rigorous assessment of the lack of environmental investigation of the onshore contaminated areas, and some 18 pages of their requirements and observations were made. This was good; this was at a standard I would expect and would have delivered myself when I was working in the capacity of site auditor. However, with respect to the sediments, the EPA produced a document, dated the last day available for submissions, of 1½ pages in length. It basically did not address any of the important contamination issues. My view is that the EPA should have produced something much more robust than this. And there is another reason for that too: The community needs to be assured that proper environmental protection measures will be implemented.

Also, this EIS and the subsequent reports will be read with interest by contractors who now believe that the EPA is not very concerned about the migration of the contaminants into the harbour when they excavate the uncontaminated sediments, which is 825,000 cubic metres. These sediments will disperse into the harbour and I think it is reasonable now that the consultants will think, "Well, the EPA is not particularly worried about it. We can go ahead and employ a fast, quick method to excavate these sediments and get them treated and out of the way", whereas this should not be the case at all. In my view, the EIS failed on that, and I think the EPA, with respect to the contaminated and uncontaminated sediments, has failed the community. I think there was evidence given by the mayor of Inner West Council this week about her concerns for human use of the waters in proximity to the works, and I subscribe to that too.

I have looked at the data that the EIS was based upon. If you recall, Transport for NSW refused to provide to me the consultants' report that identified the investigation works, which would give the concentrations of the chemicals of concern and their distribution both laterally and at depth. They refused to give me this; they said it is commercial in confidence. There was a public outcry from the community and media attention to this, and they finally gave this report to me. From that report I was able to plot the results of the—

**The CHAIR:** Dr Ryall, could I ask you also to come towards the end of your statement, please? We do want to get to questioning.

**Dr RYALL:** Yes. I was able to then accurately determine the distribution of the contaminated sediments. It is nothing like what is stated in the EIS. I have asked Transport for NSW for a copy of the report documenting their position and they said there is not such a report. That is unbelievable to me. What I have suggested now is that there is a better way of doing the remediation, because the contaminated sediments are not distributed along the entire alignment of the ITT; they are restricted to both ends of it—near Yurulbin Point, near Birchgrove, and near the Waverton Coal Loader. That is where they propose to put a cofferdam around it where the immersed tube tunnel will join the bored tunnel. This is basically a waterproof enclosure that has most of the contaminated sediments in that. I say they should be using that facility at Birchgrove and at Waverton to remove the contaminated sediments; then there is negligible impact from contaminated sediments to the waters of Sydney Harbour. Thank you very much.

**The CHAIR:** Thank you very much. I thank both sets of witnesses for their very extensive opening statements. If you have not already, could you please email them to the secretariat? That would be most useful. We will go to Opposition questioning first before we go to the crossbench and then the Government. Can I just kick off with a basic question to you, Professor Byrne and Dr Hutchings? Insofar as you are describing the disturbance that would be caused, would you characterise the risk to the harbour and to marine life as severe or moderate? For the public to understand, what is the magnitude of what you are describing here?

**Professor BYRNE:** It is severe, and a lot of the information is not clear because this is a cocktail of chemicals. It is not just tributyltin; it is not just mercury; it is not just arsenic. It is the combination of toxic chemicals, and I know from my ecotoxicology work that toxic mixtures—chemical mixtures—are highly toxic. So certainly within the area of the tunnel and up and down the harbour there will be severe—obviously at the heads of Sydney Harbour it will be less severe, so the severity of the impact will depend on how the sediments and the chemicals move.

A really good example of how this can go wrong is Gladstone Harbour. The dredging of Gladstone Harbour was absolutely diabolical. For weeks and weeks and weeks after, there were fish with ulcers and dead, and fishing had to stop [inaudible] had orange spot all over them; they could not be marketed. These were all from the contaminants from the Gladstone Harbour dredging. So there is a precedent in Australia for similar catastrophic responses of marine organisms to dredging.

**The CHAIR:** To what extent are the effects you are describing concentrated in the harbour, or to what extent would they seep out into the wider ocean or to the wider coast?

**Professor BYRNE:** The wider coast, I would think not. I am not an oceanographer, so I cannot say how the waters will move, but we do know that the waters move up and down the harbour. The plumes spread 35 kilometres in Gladstone, and 35 kilometres is a big distance. Gladstone Harbour is not the same as Sydney Harbour, but the interesting thing about Sydney Harbour is you have got a long, narrow harbour where things can go back and forth and back and forth for quite some time—we are not talking about right to the open ocean. We have got a long harbour and if you ever see the way the currents move, even with the ferries going back and forth, there are lots of opportunities for contaminants to go west and east of the site.

**The CHAIR:** It is not unreasonable to expect that some of the sediment that is disturbed will make its way to Parramatta and back.

**Dr HUTCHINGS:** I think the answer is we do not quite know. There was not a detailed oceanographic—

**Professor BYRNE:** That is true.

**Dr HUTCHINGS:** —study carried out by the EIS, but I would expect that some sediments—the contaminants were attached to some of those sediments, so when the sediments get dispersed they are going to be washed up and down the river and are going to get trapped in some of the upper reaches of each of the bays, and that is where a lot of the human activity occurs. But those are the areas where we are seeing the re-establishment of seagrasses and kelp beds.

**The CHAIR:** Is it your view that the risks that you are describing can be mitigated?

**Dr HUTCHINGS:** I really do not know because we know that the silt curtains are not going to attach to the sediments. I think it is very likely it is going to be very difficult to mitigate them. Also, the data provided in the EIS does not provide really good baseline studies, let alone of the sediments or of the fauna. So it is going to be really difficult to monitor how recovery occurs or, when pollution events occur during, say, big storm activities and things, how the fauna and the sediments are going to be mitigated. I do not know.

**Professor BYRNE:** To answer your question, I feel that the EIS was so poor that if we wanted to figure out how damage could be mitigated—we were not informed by the works that were done by the consultants for the western harbour tunnel. I suggest the EIS has to be redone—to answer your question, honourable member—to see if it can be mitigated.

**The CHAIR:** I am going to ask the same question of Dr Ryall and then perhaps pass to my colleague if she wishes to ask any questions. Dr Ryall, would you describe the risks that you are describing as severe and, if so, do you think they can be mitigated?

**Dr RYALL:** Yes, I think they are severe. The chemical mixtures are very toxic; I understand that. It is not my field of expertise but I have been around long enough to understand that. I say that it can be mitigated and my submission to the EIS and the submission to this inquiry has been that there needs to be remediation of the contaminated sediments in enclosed spaces—in those cofferdams that I have mentioned. These are watertight areas; no water will get out of that. That solves the problem with the contaminated sediments. Now, the 825,000 cubic metres of uncontaminated sediment is to be carried out in waters from 11 to 15 metres deep. I say that they should use full-depth silt curtains which are anchored to the bottom—anchored to the sea floor. This has been done elsewhere with great success in estuarine environments where currents are strong, and that solves both problems, I think.

**The CHAIR:** Finally, on the cost of mitigation, are the measures you are describing particularly cost prohibitive or not?

**Dr RYALL:** Firstly, the contaminated sediments—do not forget that the EIS totally misled everyone with the volume. The volume is totally wrong. Transport for NSW have never acknowledged that; they have never given me a document that shows that they are right. So it is a fraction of what the EIS says. The contamination, as I said earlier, is concentrated near Yurulbin Point and near the Waverton Coal Loader, within or very close to the cofferdams. So that removes that one. The other sediments that are going to be released to the harbour by excavation or dredging of the uncontaminated sediments can be controlled, as I said, by full-depth silt curtains.

**The CHAIR:** I will pass to my colleague if she wishes to ask any questions.

**The Hon. TARA MORIARTY:** Thank you to all of you for your detailed work on this. I note your comments about the work done on the EIS being far from sufficient. In all of your views, is this a case of us not really having the available tools to properly understand the risks here, or is it more a case of the work just not being done so that we can understand the risks here on this project?

**Dr RYALL:** Can I answer that?

**The Hon. TARA MORIARTY:** Yes.

**Dr RYALL:** The EIS is totally defective in that it has not assessed the risk—the impact of these things. There are tools around that can assess this and the EPA, in their review, should have demanded that that be done. So my answer to that is yes, it can be done and should have been done. It was not done and the EIS is defective.

**Professor BYRNE:** And I will add to that that the EIS completely ignored hundreds of papers that have been published on Sydney Harbour. So the information was already there; it just was not convenient for them to consult it. That is all we can surmise. It was a bit of an inconvenient truth, if you will. All this work of Dr Hutchings and all the other people that have worked on the Sydney Harbour for decades—it was not cited.

**Dr RYALL:** May I comment?

**The Hon. TARA MORIARTY:** Yes.

**Dr RYALL:** Again, I look to the EPA to have provided this information. In their review of the sediment remediation they did not assess this at all, and for the contaminated sediments, as I said, 1½ pages; just a few—three, in fact—suggestions; no requirements. The EPA should have picked this up and should have required that the EIS be revised. Thank you.

**The CHAIR:** Opposition questioning time has expired. Ms Boyd, the call is yours.

**Ms ABIGAIL BOYD:** Thank you very much, Chair, and thank you to our witnesses for your fabulous submissions and for appearing today. It seems to me that we could spend well over a week with this Committee going through all of the individual objections to this EIS and still not properly have got to the bottom of it. I am very grateful for you bringing your expertise here today. If the work had been done, if the research had been done appropriately, if the right investigations had been made, if the appropriate mitigation measures had been suggested, what do you think the impact on the total cost of this project would have been?

**Professor BYRNE:** I am not a financial expert so I cannot answer that question. But I do think that if they had done a proper assessment, they might have rethought the design of the whole project. If they looked at the weight of evidence—and I am not a financial person—the weight of evidence of this cost, the weight of evidence for doing it this way, the weight of evidence for doing it that way with respect to remediation of contamination or whatever the expensive items that are required, then we might not have had an immersion tube tunnel; we might have had a different type of tunnel.

**Dr RYALL:** May I speak?

**Ms ABIGAIL BOYD:** Yes, please.

**Dr RYALL:** The cost of addressing the contaminated sediments the way I suggested would be drastically less than what it would cost to implement the EIS. The EIS talks about 142,500 cubic metres; it is nothing like that. And some contractors I speak to have said, "The EPA has not kind of put much pressure on us. We can just go in there and rip this out and do it quickly and make money out of this." If it is done properly, as I suggest, the cost and time and lessening of impact to the community of dealing with the contaminated sediments is huge. Probably to do the remediation works as the EIS suggested would be in excess of \$100 million. Remember, they proposed to treat it and then to dispose of it into landfill. So you have probably got 200,000 cubic metres of contaminated—what did I say? Sorry, 142,000—more than that by the time it is stabilised and treated. That has got to go to landfill. Probably the total cost of that is in the order of \$100 million. My recommendation to do it enclosed in the cofferdams—far less volume; maybe something like 20 per cent of what the EIS states, and all the cost benefits from that flow. So it is going to be cheaper to do it properly.

**Ms ABIGAIL BOYD:** On that basis, then, Dr Ryall, are you saying that if we were to pause, do a new EIS and actually consider the types of solutions that you have suggested, the project could still go ahead but in a more beneficial way for the people of New South Wales and the Government from a cost perspective?

**Dr RYALL:** That is correct. I agree with that.

**Ms ABIGAIL BOYD:** Thank you. I noticed that both of your submissions primarily focused on the western harbour tunnel. I will ask you first, Dr Ryall: Have you done any investigations in relation to the beaches link component of this project and the impact on marine ecosystems?

**Dr RYALL:** No.

**Ms ABIGAIL BOYD:** Could I ask the—

**Dr HUTCHINGS:** When we did the survey of the biodiversity of Sydney Harbour, that area that you are referring to had been very poorly sampled. So we do not have the sort of data that we would need to compare. That is why Professor Byrne and I have concentrated on the area between Birchgrove and Berrys Bay, where we have far more data. The EIS did not provide adequate data on the benthos and the sediment contamination in those areas.

**Ms ABIGAIL BOYD:** Just to confirm, have either of you done research or any sorts of investigations in relation to, for example, the dive catchment areas in contaminated landfill areas et cetera around the beaches link part of the project?

**Professor BYRNE:** No.

**Dr RYALL:** No. It was enough to do it on the harbour, I thought, which is the most sensitive environmental part or phase of the western harbour tunnel, so I have concentrated on that.

**Ms ABIGAIL BOYD:** Thank you. Dr Ryall, in your submission you note that you have not had a response from the EPA or Transport for NSW in relation to the large volumes of sediments the EIS had stated. Have you received that response yet?

**Dr RYALL:** No, I have not.

**Ms ABIGAIL BOYD:** Perhaps the Committee could follow that up for you. What would be the potential consequences on the marine ecosystems if the contaminated sediments were disturbed and not contained? Perhaps that is a question for you again, Dr Hutchings.

**Dr HUTCHINGS:** I think it could have a severe impact. As Professor Byrne suggested in her opening remarks, the quality of the biodiversity or the amount of biodiversity in the harbour has been increasing over time and I could see this as a backward step. We certainly would lose increased sediment rates, turbidity in the water; we would certainly lose a lot of those seagrass beds and kelp beds that have been recovering.



**Ms ABIGAIL BOYD:** Could you talk us through the impacts not just of contamination but also of noise and vibration in the construction process on marine life in particular?

**Dr HUTCHINGS:** I think we certainly know that a lot of animals that live in the benthos are very susceptible to vibration and move away, but how far they can move and quickly enough to avoid being impacted by the excavation I do not know, and nothing was reported in the EIS on these topics.

**Professor BYRNE:** And we know that big animals—some of the big fishes and other bigger marine organisms—would avoid noise; that is well known, but that is not our expertise. We spoke, really, to the organisms that live on and in the sediment and the animals that are really abundant in Sydney Harbour that we have expertise in. Things like marine mammals, the penguins that sometimes you see at the ferry wharves—those would probably not be around; they would avoid it. But, again, that is not my expertise.

**Ms ABIGAIL BOYD:** Thank you. Are there any threatened species that are potentially at risk in the harbour?

**Professor BYRNE:** In AMSA's submission—in the big submission we wrote—we pointed out that there are the endangered seahorses, some endangered soft corals that do live in the harbour, and the blue penguins I just mentioned. All of those organisms could be affected by the project. The details of that really are not clear. There would have to have been a proper study on that aspect, to address your question, in the EIS.

**Ms ABIGAIL BOYD:** Thank you. I have only got time for one last question. Dr Ryall, you note—and I guess this comes back to the beginning of this set of questioning—you would normally expect the EPA to have stepped in to ensure that this EIS did not have all of the flaws that have been identified. Is that normal? Is that usual, in your experience, for the EPA not to have stepped in in a situation like this?

**Dr RYALL:** Most abnormal, I would have thought. The EPA's job is to protect the environment and the health of the population with respect to contamination. I would have expected the EPA to do a thorough review, as they did for the onshore area but not for the most sensitive area, which is the remediation of the sediments—the excavation of them. A very, very disappointing submission by the EPA in this respect.

**The CHAIR:** The crossbench time has come to an end. We will go to the Government. Who from the Government would like the call?

**The Hon. SHAYNE MALLARD:** Thank you, Mr Chair, and thank you to our witnesses for appearing today and giving us your submission. I might just follow up on the tail of that question from Ms Boyd. If the EPA has not responded, would you not say that the EPA does not agree with your assessment of the flaws in the EIS?

**Dr RYALL:** I am sorry, say that again. I do not understand your question.

**The Hon. SHAYNE MALLARD:** You were saying you were disappointed the EPA had not responded to your concerns around the EIS in regards to the tunnel. I am just putting it to you that if they did not respond, it was because they did not agree with your assessment.

**Dr RYALL:** The EPA 100 per cent would agree with my assessment. I was a site auditor for a very long time. I am very familiar with what the EPA does and does not do. They should have done that.

**The Hon. SHAYNE MALLARD:** But the evidence is that they did not respond, so we can only assume that they have a different opinion about the seriousness of the impacts that you are suggesting.

**Dr RYALL:** Do not forget, their submission was made on the last day available for submissions. It was a page and a half. It has been put to me by residents here that "Gee, they must have forgotten about it", because do not forget they did a very thorough assessment of the onshore contamination, of which there was no investigation—18 pages of detailed requirements. Nothing like that, though, on the most sensitive part of the whole project. The EPA surely would know—they have got very competent people in there; I have known them for decades. Why they did not do it is beyond my comprehension.

**The Hon. SHAYNE MALLARD:** I guess, at the end of the day we do not have that answer; it is conjecture what residents say and why they put it in on the last day. I want to ask you both a question. There is no use in my digging through the individual issues you have gone through quite thoroughly with the Opposition and the crossbench in terms of your critique of the EIS, so I am going to go one step back. Do you support, in principle, another tunnel crossing for the harbour?

**Dr RYALL:** I will leap in. I do support it. I would have liked, of course, to have seen more public transport accommodated by it, but my professional integrity and my professional interest is that the scientific work which I am expert in is done properly, and it was not.

**Professor BYRNE:** We are the Australian Marine Sciences Association. There are 1,000 members or more across Australia—200 or more across New South Wales. We all live in different constituencies. We are not talking about roads and traffic; we are talking about the marine environment, so, honourable member, I cannot answer that question.

**The Hon. SHAYNE MALLARD:** That is interesting. There is a public transport link, Mr—sorry, the screen says "Bill"; I did not get your surname. There is a separate tunnel under the harbour, of course, as you know—the revolution of the metro rail system, which is really going to change Sydney's public transport, which I am pretty proud of. Essentially, if you boil this down, you are very critical of the EIS. You say it did not address the key issues and you have listed those issues. Essentially, if we had 10 scientists in the room, we would get 20 opinions. We are always going to have criticism of studies and EISs and professional things. Surely the consultants used highly qualified people to do their EIS. You are shaking your heads. What do they do—use high-school students?

**Dr RYALL:** I would hope they used very competent people. However, the EPA has made and endorsed guidelines that consultants follow in the assessment of contaminated land, which includes sediments, and I would expect that the consultants follow that. The objective of the EIS, remember, of course, is to assess the impact of these issues, and to assess the impact one needs to know what is going to happen. We do not know on the onshore and we have got a few clues about the offshore, the way it is, which I say is defective and said before. Thank you.

**The Hon. SHAYNE MALLARD:** When the EIS—and correct me if I have got this wrong—was put on exhibition, you all made submissions around these flaws you saw.

**Dr RYALL:** That is correct [disorder].

**Dr HUTCHINGS:** We certainly made a submission and we were concerned about the lack of information about the benthos and of the distribution of sediments and their associated contamination.

**Professor BYRNE:** I am not saying that the scientists that contributed to the EIS were not professionals. They of course were professionals, but maybe they did not have enough time because there might have been 100 publications of rigorous research on Sydney Harbour that was not consulted. And I point out that the Golder-Douglas report of 2017, which was science of contamination, was confidential, so we could not even read it.

**The Hon. SHAYNE MALLARD:** I am old enough to remember the Sydney Harbour Tunnel being built and I am old enough to remember the concerns it was the end of the world in terms of the harbour biodiversity and the harbour floor and the mud stirred up and all that, but it seems that Mother Nature has rebounded quite strongly around the harbour tunnel; we now allow recreational fishing all through there. You go down to Woolloomooloo Bay and people are fishing all the time, and round at Rushcutters Bay there is plenty of sea life around there, much more than there was 20 or 30 years ago. Were there lessons learned from the harbour tunnel that can be applied to this new tunnel?

**Dr HUTCHINGS:** I think, again, the harbour has been improving—

**The Hon. SHAYNE MALLARD:** Similar construction of the tube [disorder].

**Dr HUTCHINGS:** The harbour has been improving, but that is in part also because they have been reducing some of the stormwater creeks going into the harbour. And there was plenty of signs all around Sydney Harbour saying "Do not eat these fish."

**The Hon. SHAYNE MALLARD:** I know that.

**Dr HUTCHINGS:** So while there are lots of fish, they are not suggesting that you eat them, because they are contaminated. The EPA has published that data.

**The Hon. SHAYNE MALLARD:** Yes, not west of the bridge—you are not supposed to eat them; that is right. My colleague Ben Franklin wants to ask some questions.

**Dr RYALL:** May I comment on that issue?

**The Hon. SHAYNE MALLARD:** Yes.

**Dr RYALL:** It is well known and been documented for decades that the environmental condition of the sediments in Sydney Harbour improves as you get to the easterly direction. As you go further west the contamination is huge. Remember, just upstream from where they propose to put the tunnel is Cockatoo Island. The sediments there remain unremediated and I would suggest they are amongst some of the most highest contaminated sediments in the world.

**The Hon. SHAYNE MALLARD:** Yes, and Pyrmont was huge—the abattoir. The contamination in that area was appalling. I will defer to my colleague Mr Franklin.

**The Hon. BEN FRANKLIN:** Thanks very much, Mr Mallard. Apologies, I am subbing in for another member on this Committee today, who is normally here but has another committee inquiry at the same time. So apologies that I am not as much up to speed as the other members. I just wanted to go, Professor Byrne and Dr Hutchings, to your submission. One of the lines in it was "Crucially, there are no management measures to monitor dissolved toxicants in the waters of Sydney Harbour." I was wondering if you could (a) speak a little more specifically to what should be in place and (b) if you could perhaps talk about what has been done in similar projects in the past with regard to the structure that has been set up to manage that issue.

**Professor BYRNE:** I will first explain how I came across this. The risk assessment matrix was quite hard to navigate, and so we have the measures—the threats and the measures. So when you went from that you realised that, yes, the toxicants were considered with respect to human health and the sediment plume. There was not a single mention in the risk assessment matrix of the release of toxic chemicals dissolved into water, and that has the potential to affect not only the people at Dawn Fraser Baths but the animals in the water. And then—

**The Hon. BEN FRANKLIN:** Sorry, I am very conscious that we only have one minute left. I am particularly interested to see how this was done in other projects in the past.

**Professor BYRNE:** There would have to be real-time monitoring of the water as the project goes by. So they would have to have—just like they did with the Olympics: The waters were delivered on a Monday and we had the test done by Wednesday, because they were so paranoid of the real-time movement of toxicants. So that is what has to be done. And then, you see, that adds to the expense: The water has to be monitored every single day and reported on a website every single day so the people at Dawn Fraser Baths can say, "I won't go swimming today" or "this week" or "this month". Real-time monitoring of toxics in the water was not mentioned in the EIS and has to be done.

**The CHAIR:** I draw this session to a close there.

**Professor BYRNE:** Thank you for your questions, everyone.

**The CHAIR:** Thank you, Professor Byrne, and thank you, Dr Hutchings and Dr Ryall, for your attendance today. I understand that you may have taken some questions on notice. If so, you will be given 21 days to return an answer after receipt of the transcript from the secretariat. Again we thank you for taking the time. You are excused.

**(The witnesses withdrew.)**

**MICHELE GOLDMAN**, Chief Executive Officer, Asthma Australia, affirmed and examined

**MARK BROOKE**, Chief Executive Officer, Lung Foundation Australia, affirmed and examined

**IAN BRIDGE**, Environmental Scientist, Private Citizen, affirmed and examined

**Mr BRIDGE:** I would like to correct the record. I am down on the schedule of speakers as a doctor; in fact, I do not hold a PhD.

**The CHAIR:** Thank you. I welcome our next witnesses. I invite each witness to make a short opening statement of no more than three minutes if they so wish, starting with Ms Goldman.

**Ms GOLDMAN:** Thank you. I am going to provide an introduction on behalf of Asthma Australia and Lung Foundation Australia. We welcome the opportunity to expand on our submission to this important inquiry. There is now very strong evidence demonstrating the immediate and long-term health effects of traffic-related air pollution on humans, highlighting a greater magnitude of impact than previously understood and showing that there is no safe lower limit of exposure. Approximately one in three New South Wales residents have a respiratory condition and, while air pollution is harmful to everyone, the most vulnerable suffer the most harm, and children and young adults with respiratory conditions are particularly at risk from the effects of air pollution because they have faster breathing rates and their lungs are still developing. Air pollution is also both a risk factor for the development of asthma as well as a trigger for asthma symptoms in people who have the condition. The same can be said for other respiratory conditions, highlighting just how devastating air pollution can be for many local residents.

Living in close proximity to high traffic volume is also associated with a range of adverse health outcomes, including hospitalisation as a result of asthma and other respiratory conditions. Both Asthma Australia and Lung Foundation Australia are consumer-focused organisations, and I would like to take this opportunity to share with the Committee the impacts of air pollution on people with asthma in their own words. This is a quote from one of our asthma champions, Tara, which just demonstrates the impacts of traffic-related air pollution on people with asthma in being able to do daily activities that some of us take for granted. I quote, "Running during lockdown, I have noticed a dramatic improvement not only in my asthma while running but also in endurance and recovery time. Pre-lockdown, running after 4.00 p.m. near congested areas would trigger my asthma, resulting in asthma flare-ups, requiring immediate medication—Ventolin—and/or I would be unable to continue running. Treadmills are a fantastic option to an extent, but they are not the most beneficial option for those trying to increase their lung capacity."

Our joint submission to this inquiry made a number of suggestions, which, if implemented, would minimise the impact of air pollution associated with the Western Harbour Tunnel and Beaches Link. We encourage the Committee to consider these suggestions as well as the severe short- and long-term health impacts of air pollution outlined in our submission, and we are more than happy to answer any questions you have.

**The CHAIR:** Thank you, Ms Goldman. Mr Bridge, I invite you to make a short opening statement of no more than three minutes if you wish to.

**Mr BRIDGE:** I am an environmental scientist, and I have been practising in the field for about 40 years—just under 40 years. My area of specialty is in air quality and pollution monitoring and management, and I have been representative on professional bodies associated with air quality assessment for a considerable period of time. I am here today because I have made a special study on environmental risk associated with crystalline silica exposures. Just in summary I would say that crystalline silica is regarded as an occupational disease. Indeed, when I started my research well over 10 years ago, it was regarded as largely controlled in the industrial setting, but more recently there have been a number of cases of coal miners' lung, which is effectively silicosis, and also tradesmen coming down with silicosis associated with exposure to manipulating manufactured stone and other things in the workplace setting. It is back on the agenda as a health and safety risk, but it is still, and remains, largely unstudied in terms of the environmental risk.

There are a few papers that have examined it—non-occupational exposures—and these have noted that there can be, and there are, cases of silicosis recorded. There are some cases recorded from the Western Desert Aborigines in Australia, from peoples in the Negev Desert, and in other cases there have also been cases recorded where farm animals have contracted silicosis where they have been near peak sites—things like quarries and other things. In summary, any time you have crystalline silica released to the environment near an ambient population, you have a risk that that population will contract silicosis. That risk can only be prevented and mitigated. Once you contract silicosis, then it is an incurable disease; it is the prevention rather than the cure that has to be accepted.

In terms of environmental limits, these are a lot less than the occupational limits, and you cannot apply an occupational limit to an environmental setting. The reason for that is that it is assumed that in an occupational setting you have healthy adults with a mature immune system working in the field for approximately eight hours a day and five days a week or so, and then away from the exposure. In an environmental setting, you may have people with an existing lung disease—a chronic obstructive pulmonary disease—you may have children with a poorly developed, at this stage, immune system, and those people need to be protected, whose exposures may also be 24 hours a day and up to seven days a week. Under those circumstances, you need to have a much lower limit for your exposures. I will end it there, Mr Chair.

**The CHAIR:** I thank the witnesses for their opening statements. If you would be kind enough to email them through to the secretariat, that would assist Hansard and members. We move to questions from the Opposition, starting with Ms Moriarty.

**The Hon. TARA MORIARTY:** I thank the witnesses for your attendance and for the work you have done on this inquiry. I will start with Mr Bridge. Thank you for your opening statement. Could you please expand on your comments? Sorry, I could not find a submission, so it would be useful to have you expand. I am acutely aware of the horrific results of silicosis on people and of other issues like that. Can you expand on what you say are the risks to workers on this project? Is that really what your focus is, other than the environmental aspects? Can you also expand on the risk to the community during construction?

**Mr BRIDGE:** There is a risk associated with workplace exposure. I would generally expect, though, that the occupational health and safety standards—and there is a workplace standard of 0.05 milligrams per cubic metre for crystalline silica exposure for workers. That is the workplace exposure standard currently in Australia. I would expect that the occupational hygienist associated with the project would be managing that on behalf of the workplace. The issue, however, becomes what about the community exposures? How does the plume travel away from the site? What are the potential exposures in the environmental setting? I would expect the occupational health and safety setting to be managed by workplace health and safety officers on site, and monitored and managed by the representative government personnel, both in terms of personal exposure and also management of those.

**The Hon. TARA MORIARTY:** Ms Goldman and Mr Brooke, thank you for your submission. Your submission contained quite alarming information in relation to some health concerns. Can I get you to expand on that? I understand your overall concerns about traffic and air pollution. What are your specific concerns about this project? How will this be worse than existing traffic? Will filtration help? What is specific about this project?

**Ms GOLDMAN:** Firstly, we would encourage the New South Wales Department of Planning, Industry and Environment [DPIE] to conduct further inquiries and analysis to ensure that the best strategy is in place. I want to draw your attention to the 2018 report of the New South Wales Public Accountability Committee, *The impact of the WestConnex Project*, because recommendation 13 in that report stated:

That the NSW Government install, on all current and future motorway tunnels, filtration systems in order to reduce the level of pollutants emitted from ventilation stacks.

Also, there were recommendations around real-time publication of air quality data. We know from lots of experience with other tunnel infrastructure projects in New South Wales and other jurisdictions that not enough time and analysis and investigation has gone into understanding and estimating the health impacts. There is always a big focus on the environmental impacts. Looking at filtration is an absolutely essential one to try and minimise the level of emissions that are emitted from the stacks, but we would also recommend ongoing dust-suppression measures.

Mr Bridge has spoken about silicosis, but dust is a problem in a whole range of areas, especially during the period of time of construction of the tunnel for that dust to be suppressed; capping of loads as well to reduce the level of dust that is in the environment and that is distributed; halting activities during certain weather events, such as when it is particularly windy and when the dust can be carried over a larger geographical area; and also ongoing air quality monitoring at schools and childcare centres. I understand that there is a large number of schools and childcare centres in the vicinity of the tunnel, and I understand that information about that has already been provided to the Committee from other people who have presented to this hearing. They would be key recommendations we would make.

**Mr BROOKE:** Through you, Mr Chair—Mark Brooke, Lung Foundation. I think it is also incredibly important that we note that you can measure short-term impacts through monitoring, but what we need to understand about lung disease is that with something like asthma you might see a flare-up or an exacerbation, but as the national standards have shown and as the National Strategic Action Plan for Lung Conditions, which is the department of health's forward-looking plan, clearly demonstrates, air quality is one of the leading contributors to

the burden of disease for lung conditions. Sadly, many of the lung conditions that the Lung Foundation represents will not be immediately apparent. It may take 20 or 30 years, as Mr Bridge has pointed out, to see the full extent.

If you think about something like lung cancer, which is traditionally associated with a history of tobacco usage, one in five patients diagnosed this year will have no history of smoking and will have other factors, including air pollution, contributing to their diagnosis of cancer. We see this with rare lung diseases, including pulmonary fibrosis. But if I could just add an adjunct to Mr Bridge's evidence, I would strongly suggest that the Committee review the National Dust Disease Taskforce report—the Federal Government's dust diseases task force—which makes a series of recommendations about air quality monitoring, not just within workplaces, within the broader community as well, because, as Mr Bridge has quite rightly pointed out, the scourge of silicosis has returned, not just within workers but also those associated with those workplaces in administrative roles.

**The Hon. TARA MORIARTY:** Given the times that we are in at the moment—the pandemic—even if construction can go ahead and we open a little bit, we all suspect we will be living with this for some time. When schools go back, it is recommended that they have windows open for cross-ventilation. You are quite right to say there are a large number of schools in the construction zone for this project. What risk does that pose to children if keeping the windows closed is not an option while construction is happening, which is probably going to go on for some time? What are the additional risks for children?

**Ms GOLDMAN:** Michele Goldman from Asthma Australia. The additional risks are significant. There is plenty of epidemiological research from numerous continents around the world which show a very strong link between exposure to nitrogen dioxide [NO<sub>2</sub>—the main emission in traffic pollution—and both the onset of asthma as well as the exacerbation of existing asthma, causing symptoms, flare-ups and requiring hospitalisations. In some instances it can be fatal. Indeed, I refer the Committee to the death of a nine-year-old girl in the United Kingdom several years ago, where on her death certificate it was reported that her death was as a consequence of air pollution and set legal precedent for the future. It is an area of significant concern to us, especially exacerbated, as you have pointed out, in the current pandemic.

**Mr BRIDGE:** There is a direct relationship between exposure to fine particulate and mortality and morbidity. Within that relationship, the particle itself is toxic, but the particle can also be a carrier of other chemicals that are adsorbed onto the surface of the particle and, when breathed in and hit the lung tissue, that can then be desorbed from the particle and into the body, leading to the health outcome.

**The CHAIR:** Can I follow up on that, Ms Moriarty?

**The Hon. TARA MORIARTY:** Yes.

**The CHAIR:** To what extent are you confident that the risks that you have identified are being properly mitigated?

**Mr BROOKE:** Mr Chair, if I could answer that? It is Mark Brooke from the Lung Foundation. I do not think we can be confident, if I am honest with you. The rise and the prevalence of lung disease, as both a burden of disease and in mortality, is ever increasing and is likely to outstrip cardiovascular disease as the leading cause of death in Australia in the next 15 to 20 years. Cumulatively, if you take the top five causes of death in Australia, lung diseases are four of those five and, if you add them all together, are a factor by five over cardiovascular death. Cardiovascular death is also linked, I might add, to air pollution and air quality, but from our perspective lung disease and the burden of lung disease is ever increasing, as are the number of patients.<sup>1</sup> I would probably just go back one step to Ms Moriarty's question. I do not think we could simply just focus in on students. That is very important, but there are also the teachers and staff within those schools who will have existing lung diseases or other forms of chronic illness that also need to be cared for.

**The CHAIR:** We will turn to questions from crossbench members. I am conscious that Mr Bridge and Ms Goldman did not get a chance to answer that question, but if you do wish to add to any aspects of Mr Brooke's answer, please do so on notice.

**Mr BRIDGE:** I would support and endorse Mr Brooke's response.

**Ms ABIGAIL BOYD:** I thank all of you for attending this morning and for your detailed submissions. In particular, I thank Ms Goldman and Mr Brooke for the very detailed recommendations that you have suggested

---

<sup>1</sup> In correspondence to the committee received 4 November 2021, Mr Mark Brooke, Chief Executive Officer, Lung Foundation Australia, requested a correction to his evidence by replacing the number "four" with the number "two" and by replacing the phrase "and, if you add them all together, are a factor by five over cardiovascular death" with the phrase "which together closely follows Coronary Heart Disease".

be put in place if this project in fact goes ahead. I want to take a step back and look at the body of knowledge in relation to air pollution that has grown, particularly, I have noticed, over the last two to three years, but also before that. Would you fill us in a little bit on how quickly that understanding of the health impacts between air pollution and things like lung cancer has grown over the last few years of research? Mr Brooke?

**Mr BROOKE:** Thank you, Ms Boyd. I think we are talking about more than two or three years of research. The Australian centre of excellence for airways quality in Australia has been a leader in this regard. If we look back at other submissions that have happened over the last decade, particularly around bushfire smoke and the air particulate matter in bushfire smoke, indoor air quality and the use of radon in carpets, that research is almost 20 years old now. I think you are right; there is an accumulative knowledge, and Australia has a very, very strong and powerful voice in air quality research in Professor Guy Marks, who is at The University of Sydney and the Woolcock Institute. It would be worthwhile reading some of his more recent papers, particularly around the principles of managing air quality into the future, and I am happy to have those tabled separately.

**Ms ABIGAIL BOYD:** Is there any evidence, from your perspective, that governments have adapted to that knowledge and understanding? Are they paying attention?

**Mr BROOKE:** My personal view is that the investment in air quality research is significantly less than the burden of disease quota, so if we think about asthma, for example, costing the Australian community \$28 billion every year, but we look at the total sum of respiratory research and air quality research. We have commissioned a report by PwC in 2018, which identifies lung disease and airways disease burden at being about 9 per cent of total burden in this country but research investment at being 2 per cent. There is a disproportionate lack of investment in air quality research, not just in terms of air quality monitoring but also, as Mr Bridge has pointed out, the types and understanding of products that are being used in both manufacturing, in transport.

Again we would refer back to Ms Goldman's evidence around the child in the UK setting a new precedent, where a death has been attributed to diesel fumes on a major road next to which she lived. All of that evidence has now accumulated, but significantly more must be done in not just investing in research but also how to transparently and accurately report that in real time to people impacted, not just by lung disease but the entire community. If I could be so bold as to suggest that if we can have iPhone watches available to us then we should be able to send messaging, and that is one of the critical recommendations about the National Strategic Action Plan for Lung Conditions—real-time monitoring of air quality. Finally, I would add this point: When Sydney was shrouded in bushfires just 18 months ago, we could see what was in the air, we could feel it in our lungs, but, sadly, a lot of air pollution is invisible to us, and we are breathing it and walking around in it every day. It is that invisibility that has led to a laissez-faire approach and potentially a lack of investment in an incredibly important health concern.

**Ms ABIGAIL BOYD:** Thank you. Ms Goldman?

**Ms GOLDMAN:** I endorse all those comments by Mr Brooke. I would also add that whilst we have seen advancements in air quality research, which has improved our understanding, there is still a lot we do not know. We still do not really understand what the cumulative long-term impacts of exposure to different pollutants are but, despite not knowing that, we know that the short-term impacts are particularly harmful. People with asthma are like the canaries in the coalmine because, whilst things like lung cancer might only be seen 20 or 30 years after being exposed to particular pollutants, with people with asthma symptoms are immediate and people have flare-ups and require hospitalisation, so we know that the quality of our air desires improvement.

I would say that the pace of change and government policy and regulation have not kept pace with the increase in our knowledge, and we have seen things like the National Environment Protection Measures with very little change over more than a decade and still not keeping track with the knowledge that is now understood in terms of what levels of exposure are harmful to health. We know with some pollutants, like NO<sub>2</sub>, there is no lower limit of exposure that is safe and yet we have a standard, so there is no incentive to reduce the level of exceedances. I would suggest that there is a lot of work that needs to be done to catch up with what we know as well as ongoing and, as Mr Brooke said, increased investment in research to fill the gaps in our understanding.

We acknowledge the clean air Act of the New South Wales Government, and we think that is a really valuable opportunity to do something and to put in place some real, practical measures that will make a difference to reducing the exposure of the population to air pollution. As Mr Brooke said, there are some events where we are helpless to do much about it, like the bushfire event. Asthma Australia conducted a survey that was responded to by over 12,000 people, and it was alarming to read the findings, both qualitative and quantitative. It impacted all aspects of people's lives—physical, psychological, financial, social—but the most insightful finding was that despite heeding public health advice, despite staying indoors and closing windows, it did not help protect people. They still experienced symptoms, they still required emergency care. So there is a lot more we need to do to be able to protect the community.

We need public health education campaigns, so people better understand the impacts of air pollution on health, especially in those instances where air pollution is invisible and odourless, so that people can be made aware and can at least take the measures within their control to avoid exposure and protect their health and wellbeing. I would just note that Asthma Australia is developing an AirSmart public education campaign, which was called for and recommended by both the Royal Commission into National Natural Disaster Arrangements as well as the NSW Bushfire Inquiry. We look forward to piloting that in New South Wales in early 2022.

**Ms ABIGAIL BOYD:** Thank you. Could I ask you—sorry, Mr Bridge?

**Mr BRIDGE:** Yes, I was just going to build on Mr Brooke's statement earlier. When you do see a plume of materials rising—a plume from a chimney or a plume from a stockpile or somewhere else—that is typically only the visible particles, and they are perhaps a particulate matter 15 and above. There is contained within that plume an invisible plume that cannot be seen unless you have a particular way of standing where the sun is, and it is that invisible plume that has the greater health risk.

**Ms ABIGAIL BOYD:** My time is almost up. I have a final question. Given the enormity of the health risks, both known and potentially unknown at this point but suspected, should we be building more roads or should we be focusing on other public transport solutions at this time? Is that cost-benefit analysis ever going to make sense for new roads?

**Mr BROOKE:** Hello, Ms Boyd. Our foundation is committed to a zero-net carbon future first and foremost, but the foundation does not have a particular view about the balance of public infrastructure versus safety, other than to say we do need to take the safety of New South Wales citizens much more seriously and not at the expense of public infrastructure that is damaging their health.

**Ms ABIGAIL BOYD:** Ms Goldman?

**The CHAIR:** Very quickly, please.

**Ms GOLDMAN:** I would just say that we are behind other countries in the world, and we can take lessons from cities, like London, who are implementing great measures to reduce the sources of pollution and protect the health of their citizens.

**The CHAIR:** I turn to the Government members, who will take us to the 11 o'clock break. Mr Franklin?

**The Hon. BEN FRANKLIN:** I thank all the witnesses for being here today and for your very important contributions. I have a couple of questions on the submission from Lung Foundation Australia and Asthma Australia and also following up Ms Boyd's line of questioning. In your suggestions about what could be done, you identify two fundamental areas. One area is structural issues that need to be addressed in terms of the building of tunnels and other infrastructure. The other area is the cultural or behavioural issues, potentially, that we have touched on a couple of times in the questioning, which we could look at as well. I would like to discuss both of those. First, in terms of the structural issues of these sorts of projects around the world—and I understand and appreciate that you are not engineers—do you know of any best practice for managing pollution issues in these sorts of infrastructure projects around the world that you can draw the attention of this Committee towards in terms of minimising the sorts of particulates and concerns that you have? We might start with you, Mr Brooke.

**Mr BROOKE:** Thank you, Mr Franklin. We would need to take that question on notice. We are aware of significant policy frameworks in other countries, particularly European countries, which are guiding infrastructure development. We are happy to provide that subsequent to the hearing. What I would respond to say is that we need to get the principles and the policy settings right first and make sure that they are evidence based, and, as our submission clearly shows, getting those policy settings first and not as an afterthought. To be frank, let us not build the infrastructure and then retrofit an air quality monitoring system; let us have the conversation about the principles for setting air quality standards in this country first and then look at the infrastructure. I think that fundamental tenet of good planning needs to apply.

**The Hon. BEN FRANKLIN:** That is obviously something that the Government is focused on. I appreciate your comments, Ms Goldman, about the clean air regulation passed recently. Do you have any other comments that you want to make about this issue?

**Ms GOLDMAN:** No, I would endorse the comments of Mr Brooke, and only to say that in addition to finding examples, which we can certainly provide, in terms of other areas in the world that have conducted infrastructure projects really well to minimise the level of emissions, I think the health impact assessment is undercooked usually. That has been our observation, so it is really important to do that thoroughly and rigorously: to plan for things, even down to things like the number of cars or the number of vehicles, because you can estimate a vehicle volume that will pass through the tunnel and it might be underestimated and then, despite all the calculations, you land up with greater emissions than you anticipated. I think health impact assessments are



critical, based on the assumptions and measures put in place so that those assumptions are not exceeded when the tunnel actually starts to operate.

**The Hon. BEN FRANKLIN:** Mr Bridge, do you want to add anything in terms of world comparisons? You do not have to, only if you want to.

**Mr BRIDGE:** No. Again, I would take that on notice if I could.

**The Hon. BEN FRANKLIN:** Yes. As I say, I know you are not engineers, but your perspective is useful in this discussion. That brings me to the second issue, which is of course about cultural and behavioural issues and change. Obviously, some of those are through the construction process—and I appreciate some of your specific suggestions in your submission—but obviously more broadly, as the world changes and more development happens, we need to consider these issues in terms of our behaviours. I want to give you the opportunity to highlight to the Committee those sorts of cultural and behavioural issues, particularly those that can be recommended by this Committee or looked at by government to assist that change.

**Mr BROOKE:** Mr Franklin, there are several within the national strategic action plan that we look for, including green vehicles and better public transport infrastructure. Mass movement as a modality is incredibly important going forward. But also looking, as I said, at using artificial intelligence and digital technologies to drive personal behaviours around air quality. There will be people, through bad luck, that have a genetic predisposition to a lung disease, for example, so being able to preserve and protect their health is one of those fundamentals that the Lung Foundation, and I would suggest Asthma Australia, have been very strong on for many years in being able to alert them to dangerous air quality levels.

But I think there is also substantial work to be done in terms of public infrastructure policy and planning. Over the last 12 months, as COVID has hit, we have observed seismic changes in, for example, the low levels of influenza brought about by cultural norms: things like mask wearing; people not shedding viral load coming to work when they are sick—all of those lessons need to be applied but over a much longer term—people working from home and understanding what people working from home does to the movements within major urban areas; people relocating out of, say, Sydney into Orange, for example, and working from home. All of those cultural behaviours are really interesting and things that I suggest we are not able to fully quantify in terms of environmental policy going forward, but it would be a significant area of interest.

**The Hon. BEN FRANKLIN:** Ms Goldman, do you want to add anything to that?

**Ms GOLDMAN:** I would just endorse all of those comments and just say that the digital technology is a really important part in terms of adaptation strategies. Whilst we have high levels of pollution, enabling people to better understand the levels of pollution at any time and also people who are more vulnerable to exposure—children, pregnant women, elder people, people with chronic diseases—to enable them to understand their exposure limits and when they need to take certain actions. As part of the AirSmart campaign, it includes an app, which will, over time, with people recording their symptoms, be able to provide personalised notifications to them so they understand at what level of air pollution exposure they are going to have respiratory symptoms and therefore be able to manage. That is part of the adaptation, but we also need to focus on the mitigation strategies. I would just endorse the comments Mr Brooke made about green vehicles, public transport and also limiting or moving away from diesel because that is a major source of ultrafine particles.

**The Hon. BEN FRANKLIN:** One of the things I am delighted about with the beaches link is that it incorporates a new express bus service, which I think is a good thing for more public transport, as you say. Mr Bridge, do you want to add any final comments?

**Mr BRIDGE:** Yes, there are a couple of points. Firstly, I would like to endorse the comments made by the other two guests here. Additionally, though, I think there is a role to play in educating workforces when they are on projects like this in relation to their responsibility to help manage the emissions. That is done through things like induction programs, through making everybody aware of their own responsibility to minimise the amount of pollution they are causing or releasing or that is being released as a result of their activities on the workplace. That would be a major role then in reducing community exposures downwind of these sorts of sites. They do have a major role to play, and it can be a significant reduction just through their own personal actions taken on the workplace.

**The Hon. BEN FRANKLIN:** Thank you. They are my questions. I am not sure whether other Government members have questions.

**The CHAIR:** There is time for one more question from a Government member. Otherwise, we can draw this part of the hearing to a close. I think that is silence.

**The Hon. SHAYNE MALLARD:** [Inaudible] I was just trying to get through on the internet in regional New South Wales. I am totally on board on the issue of air pollution. I am an asthmatic myself, and I really appreciate the work you people do. My father is an asthmatic as well. It is quite a common disease in our society now. I have a history of campaigning on the issue of the stacks. In the 1990s and 2000 I campaigned against the eastern Sydney stack built by Labor, which was unfiltered and quite a low one. In fact, Labor built about five unfiltered stacks, and then we came into government. When we came into government, the science was presented to us, and I was presented with it—I am losing my breath already. I wanted you to comment, particularly maybe Ms Goldman, on the policies around the stacks that we have put in place since we came into government. Just to remind you, there is now a licence requirement. The EPA monitors the ambient air quality, and if they breach that the licence is suspended. It has not happened yet, but the science says that that is a very good model, and that is our position at the moment. Would you like to comment on that?

**The CHAIR:** That is the last question. Over to you, Ms Goldman.

**Ms GOLDMAN:** I would need to take that on notice. Based on the question, it sounds like it is definitely a move in the right direction. I know that whilst New South Wales has one of the most extensive air quality monitoring networks in the country, there still is room for improvement.

**The Hon. SHAYNE MALLARD:** [Disorder]

**Ms GOLDMAN:** It is also a question about whether there is adequate monitoring in all the communities that might be exposed to the emissions from those stacks, especially when weather events are extreme and the particles are being carried over larger distances, because we know it is an issue that there are some communities who do not have appropriate air quality monitoring to understand air pollution levels.

**The Hon. SHAYNE MALLARD:** Yes, I mean—

**The CHAIR:** I invite the witnesses—

**The Hon. SHAYNE MALLARD:** [Disorder]. The M5 was—

**The CHAIR:** Sorry, Mr Mallard. I would invite the other witnesses to take the questions on notice. We are one minute past the expiration of time and I do want to give Hansard and the secretariat the break that has been promised. I thank the witnesses. If you have taken questions on notice, you will have 21 days after receipt of the transcript to return an answer. You are now excused. The Committee will resume at 11.15 a.m. I remind members to turn off your video and microphone unless you would like to broadcast your goings-on on YouTube.

**(The witnesses withdrew.)**

**(Short adjournment)**

**JOHN MORATELLI**, President, Willoughby Environmental Protection Association, affirmed and examined

**MEREDITH FOLEY**, Member, Executive Committee, Willoughby Environmental Protection Association, affirmed and examined

**RHYS WILLIAMS**, Tunnel Coordinator, Anzac Park Public School Parents & Citizens Association, sworn and examined

**GEORGINA TAYLOR**, Technical Support, Anzac Park Public School Parents & Citizens Association, sworn and examined

**The CHAIR:** Welcome to our next set of witnesses joining us. Welcome also to Mr Veitch, who is from the upper House, who is joining us for the second half of today's sessions. Can I invite each organisation to have one of their representatives make a short opening statement, please?

**Mr MORATELLI:** We are happy to allow Anzac Park Public School to go first, if that is alright.

**The CHAIR:** Sure. Anzac Park Public School—Mr Williams, feel free. Limit it to no more than three minutes, please.

**Mr WILLIAMS:** Yes, Chair. I will be doing half of the three minutes and Ms Taylor will be doing the second half. Seven hundred and ninety-eight and 120, 20,000 and 3,000. Good morning, Committee members, and thank you for this opportunity. That's right: 798, 120, 20,000 and 3,000. These figures relate to Anzac Park Public School, or APPS, and the North Sydney education district, the largest education district in the country. Seven hundred and ninety-eight and 20,000 are total numbers of children, and 120 and 3,000 are those children having special health needs, including asthma management plans. These are people who are outside those who can choose what happens, yet they are subject to those decisions. They need to be looked after, and courts have confirmed that obligation extends to government. APPS is a new 1,100-capacity facility opened in 2016 with a state-of-the-art, totally open, ambient-air-reliant five-storey building. Other schools, whilst not new, have similar ambient air reliance. After some concerted communication from us, Transport and contractors engaged with us and continue to do so on a regular basis.

We have had some success there, but there are still concerns, and we are not confident that they will be met. Generally any success has been with the contractors and not due to approval conditions or the Government. Our concerns are that the process is reactive, not proactive; that Transport believes its tunnels will only slightly increase a currently poor air quality position and that it is okay to deliberately increase air pollution at locations; the sometimes challenging and creative interpretation of the project underpinning documentation; and that no-one on the proponent's side sees the overarching benefit that filtration would have to the reduction of damaging air pollutants, climate change impacts and meeting government targets. We need tighter, clearer, proactive terms ensuring protection during construction and in operation; monitoring at schools and sporting places frequented by children now, to provide for proper baseline data as well as ongoing, perpetual monitoring; and, lastly, filtration of the triple exhaust pollution stack at Cammeray. As we have a moment with the six- to 18-month pause whilst the Warringah Freeway upgrade main works are designed, these issues can be addressed and fixed. I now hand over to Georgina Taylor, who will briefly add some aspects.

**Ms TAYLOR:** Thank you, Mr Chairman and Committee members. Long urban road tunnels—that is, those over four or five kilometres long—are rare worldwide and in Australia. Most are 500 metres and duck under a rail line or a road. Sydney has, however, approved six of them since 2014, with a deficient ventilation design before the first of those long tunnels even started operation. There has been no real-world data to compare. They have designed them the same way as the short tunnels, which do not require filtration and can survive with just a stack at each end. Losing green space and many mature trees, which act as the lungs of an area—as happens on this project—and increased local road traffic, as is also shown in the EIS figures for the surrounding areas throughout the North Sydney and Willoughby local government areas, will make these pollution impacts worse. The recent history of ventilation and exhaust stack conditions in Sydney has been one of cherry-picking the data and obfuscation. It has been apples comparing to oranges.

Mr Mallard rightly pointed earlier to the concern about exhaust stacks at the time of the Cross City Tunnel. That tunnel, however, is only 2.2 kilometres long. The projects this Committee is looking at—the seven-plus kilometre western harbour tunnel connecting to a 7.5- to potentially eight-kilometre long beaches link tunnel, by the time you get to Seaforth—are not the same thing at all. They are treated quite differently overseas when these very rare long tunnels are built. NorthConnex, the nine-kilometre start of this list, has a better ventilation design than the western harbour tunnel or the beaches link tunnel. It does have air releases halfway along so does not break the international tunnel design rule that the Centre d'Études des Tunnels, based in France,

and PIARC, the roads association, subscribe to: There should never be a gap of more than 4,500 to 5,000 metres between exhaust stacks on a long road tunnel. These tunnels offend those principles.

The word "unfiltered" is never mentioned in any of the glossy brochures or more than 20,000 pages of EIS documentation presented to the public for these projects. Instead, the words "ventilation stack" and "world's best practice tunnel ventilation" are used to cover over this. Why not use the word "unfiltered"? It is fine. It is safe on short tunnels. It is not safe on these, but they do not tell the public that. Also, inaccurate descriptions of overseas tunnel designs have been included in the technical papers provided to the Chief Scientist's Advisory Committee on Tunnel Air Quality [ACTAQ]. The Hong Kong Central-Wan Chai Bypass tunnel referred to in the latest paper that they raced through in 2018-19, at the time of the EIS, is in fact filtered. They stated in the report, "We couldn't tell if there was air treatment."

The 18-kilometre E4 Stockholm tunnel referred to has 10 exhausts along its length, like Sydney Harbour Tunnel plus Sydney Harbour Tunnel plus Sydney Harbour Tunnel—a safe way to build it if you do not want to filter. The same independent expert has been used by the tunnel proponent for successive projects and placed on the ACTAQ committee. I can provide specific detail on what they do worldwide on urban road tunnels of this nature, if the Committee likes, afterwards or on notice. Many use particle and gas filtration to remove exhausts before release. Others add a lot more stacks along the route—or be pragmatic, like the French and the Turks, and just ban diesel from the tunnels.

**The CHAIR:** Ms Taylor, can I ask you to please come towards the end so we can have the other witnesses make their statements?

**Ms TAYLOR:** Of course, yes. We agree with the Chief Scientist's ACTAQ report of 2014, updated in 2018, that the emissions from well-designed road tunnels cause a negligible change to surrounding air quality. However, that report was based only on data taken from the operating, existing Sydney road tunnels, none of which exceed four kilometres. The Federal Government has not increased vehicle and fuel standards, as was anticipated when these projects were proposed, and the Chief Health Officer's statement indicates that unless every single assumption in the modelling holds, the results will not be satisfactory. Thank you very much.

**The CHAIR:** Thank you, Ms Taylor. Can I invite either Mr Moratelli or Dr Foley to make a statement on behalf of the Willoughby Environmental Protection Association [WEPA]?

**Mr MORATELLI:** Thank you, Chair. I am John Moratelli and I will make the opening statement for WEPA. I will also be seeking to table a document. I do not know if now is the appropriate time or at the end of my statement.

**The CHAIR:** It is fine to table it now.

**Mr MORATELLI:** Okay. I seek to table the document described as "tabled document", which has been provided to the Committee and has the document called "tabled document and five annexures", namely annexures A, B, C, D and E.

**The CHAIR:** Thank you.

**Mr MORATELLI:** It is nothing short of disgraceful that the Government has refused to consider alternatives to these motorway projects, the combined impact of which includes the felling of over 3,000 mature trees; the disturbance of toxic sediment in Sydney and Middle Harbour; the disturbance of contaminated historical tips and landfill sites at Flat Rock Gully and Cammeray golf course; the failure to properly assess and manage this contamination, which at Flat Rock may include PFAS, dioxins and hexavalent chrome; the movement of around 440,000 B-double trucks over the Sydney Harbour Bridge during construction; the generation of greater car traffic and pollution; the risk posed to local bushland by drawdowns; and more.

All of this is for dubious benefits based on unjustified traffic modelling in the context of a refusal to consider any alternatives to motorways; the failure to consider the impact of recent public transport initiatives, such as the B-Line; and a failure to consider the predicted impact of COVID-19 on population growth and travel patterns, in particular—changes to travel patterns due to an increase in working from home. The way in which the beaches link EIS deals with the impact of COVID cannot be described as anything other than deceptive. Claimed travel time savings for the beaches link are based on projections which have nothing to do with historical patterns, but everything to do with designated growth areas, particularly Frenchs Forest. The claimed savings, when analysed, do not represent savings on current travel times, but nowhere in the documentation, as far as we are aware, is this explicitly stated.

Benefit-cost calculations for the western harbour tunnel have been done and contracts entered without any meaningful assessment of the cost of contamination management and remediation, despite major remediation being likely to be required at Flat Rock Gully and Cammeray golf course. No benefit-cost calculations have been

done for the beaches link tunnel, and Terry le Roux's submission suggests that such a calculation would result in a number less than one. Again, the costs of the beaches link tunnel have not taken into account the major contamination remediation which will be required at Flat Rock Gully. To the extent that contamination assessments have been done, risks have been ignored or underplayed.

In relation to management of contamination risks the Department of Planning, Industry and Environment, the relevant regulator, has failed to impose appropriate conditions of approval; ignored breaches of those which do apply, allowing work to proceed without any proper contamination assessment; and turned a blind eye to false and misleading statements in the EIS and detailed site investigations, seemingly adopting a "no penalty for porkies" policy despite penalties being provided for in the relevant legislation. DPIE has not committed to exhibiting the preferred infrastructure report from Flat Rock Gully, despite WEPA's requests. It should not be like this. There are alternatives. WEPA has put forward an alternative to the beaches link tunnel developed by Ted Nye, an experienced tunnelling engineer. It consists of an underground electric bus or light rail between Frenchs Forest and Chatswood. It would be cheaper and have greater capacity than the current proposal without the environmental and health downsides.

It, and other alternatives, needs to be seriously considered before any further development of the current proposals takes place. WEPA does not believe that, if this is done, the current beaches link proposal can survive. The current western harbour tunnel proposal can then be reassessed in light of updated traffic modelling which takes public transport developments, such as the B-Line, and the impact of COVID into account. If the motorway is still considered appropriate alignments for the western harbour tunnel, such as those proposed by Ted Nye, which do not need to surface to meet up with the beaches link can be considered. Such an alignment would avoid the additional expense and environmental risk of an immersed tube tunnel across Sydney Harbour and the bisection of North Sydney CBD. Should either of these projects proceed—

**The CHAIR:** Mr Moratelli, can I ask you to please come to the end of your statement?

**Mr MORATELLI:** Yes, I am just finishing up. Should either of these projects proceed after an open consideration of alternatives and the benefit-cost ratio of the different alternatives, they should only do so subject to more stringent mitigation measures, such as those outlined in our submission. Thank you.

**The CHAIR:** Thank you. I thank the witnesses for their extensive opening statements. If you would be kind enough to please email them through to the secretariat, that would be most appreciated. We will now kick off questioning with questions from the Opposition. I might ask the first, and that is directed at you, Mr Williams. Can you describe the attitudes of the school community that you represent towards this project? Have the factors that you have identified led to them suffering from any greater apprehension about the project?

**Mr WILLIAMS:** Thank you, Chair. The situation is that the population of the school has been aware of what has been transpiring. We have been providing them with updates on what has been occurring. I would say that with the current state of the early works in Anzac Park, which is adjacent to the school—with the chopping down of trees and things of that nature—it has become more real for them. The concern which was there has heightened, and there is a lot more interaction with us as to what is happening. Are we going to be looked after? What is happening with the pollution and the fact that there is proposed to be unfiltered pollution exhaust stacks? That is causing a lot of concern, which will not go away.

**The CHAIR:** Mr Williams, you said that to the extent to which you are getting information, you are getting information from the contractor, not the Government. Is that clear?

**Mr WILLIAMS:** What occurs is that we have meetings, which are now regular. We provide a list of concerns or issues and the responses are discussed at the meetings. The ones where we have got some success, which relate to traffic controls during the early works for trucks—so, the trucks are restricted on when they can pass through the streets in front of the school. That was provided by the contractors because at the meeting, which also had Planning there, Planning indicated that there were absolutely no restrictions on the traffic and they could have whatever size trucks they wanted travelling at whatever time.

But the contractors obviously decided that it was in their best interest to avoid running over children, so they agreed to reduction of the timing that they would have trucks going through those areas. The other success we have had is in relation to—very recently, the works have required illuminated signage to be placed on streets for traffic to be diverted. What was occurring was that the trucks that had the illuminated signs were maintaining the engines on for the whole day, not turning them off. Parents were concerned about that issue. We addressed the contractors on that and we reached agreement that they would not do that, and they would provide the batteries so the signs could be illuminated without the trucks being on.

**The CHAIR:** Thank you. This is my final question before I pass to my colleague, which will probably be Mr Veitch. Aside from the contact that you have been having with the contractor, you made reference to

contacts you have with Transport for NSW or DPIE or other arms of the Government, including its political representatives. Are you confident that you are having adequate levels of engagement directly with Transport for NSW or other arms of the Government about your school community's concerns?

**Mr WILLIAMS:** Yes, because the arrangements presently are that Transport and contractors meet monthly with our school principal and quarterly with the P&C. So, yes, we have regular contact.

**The Hon. MICK VEITCH:** My questions are essentially to Mr Moratelli for the group that we are referring to as WEPA. Mr Moratelli, I have just been reading through the tabled documents you provided to the Committee today or that have been received by the Committee today. My questions relate to Cammeray Golf Club and Flat Rock Gully. What do you think was the adequacy of consideration around alternative options and the measuring of the impact on those two sites?

**Mr MORATELLI:** Dealing with the adequacy of consideration of alternative options first, it is fairly obvious from the documents that we have received—particularly Mr Nye's Government Information (Public Access) Act [GIPAA] application—that there were never any alternative options considered. The riding instructions given to the Roads and Maritime Services [RMS] were to consider a motorway option and no other option. By way of background, Mr Nye's GIPAA application sought documents justifying some assertions made in the beaches link EIS around the feasibility of a rail link. Initially he received a response saying, "This is covered in the strategic business case," which at the time was for both projects, and that was Cabinet-in-confidence: "You cannot have it." When he appealed that to the NSW Civil and Administrative Tribunal it was reviewed and he got a response back saying, "Sorry, we've got that wrong. It had nothing to do with the strategic business case because all the strategic business case considered was a motorway option. Given that it considered a motorway option, what you are saying about the rail option—in fact, there was not any consideration given to it at all."

It was not in the strategic business case. Non-motorway options were not considered. So that is basically what that is about; other options have not been considered at all. In relation to contamination issues and management of them, particularly at Flat Rock Gully, which has contamination going down, according to EIS the fill going down at least to 50 metres. It was a massive regional tip that operated for many, many years. Towards its top there was a Hallstrom refrigeration factory, which at its peak was producing 1,200 refrigerators a week, and there was probably chrome-plating going on there. Chrome-plating generates hexavalent chrome and generates PFAS chemicals. There was open burning going on in that tip, and there are photos of that. That was probably generating dioxins due to the burning of plastics. There are extremely serious contamination issues there.

Willoughby City Council has notified the EPA, pursuant to section 60 of the Contaminated Land Management Act, in relation to contamination of groundwater. That is the same water table that these tunnels will be going through. That notification is still under assessment. Dr Hayley, who I mention in my tabled documents, says that the groundwater assessment done in the EIS is not best current practice. It is a real concern that the Hallstrom refrigeration factory, being a very large industrial undertaking, and its contaminants were never identified in the EIS as a potential contaminant, despite—excuse me holding this up. It was just referred to. This is the Bob McKillop book, which is the local history of the tip, referred to in the EIS as a source.

It has pages and pages in there on the Hallstrom refrigeration factory, and the Hallstrom refrigeration factory and its potential contaminants are never mentioned in the EIS. That is a real concern because the EIS is supposed to do a thorough identification of potential contaminants, because then those contaminants have to be tested for and assessed. If it does not identify thoroughly the potential contaminants, they are not necessarily looked for. Just to sum up, I think it is an extremely complex contamination situation, added to by the fact that it feeds into Middle Harbour, and also added to by the fact that it is a massive water catchment. Flat Rock Gully is one of the biggest water catchments on the North Shore—possibly the biggest. Its water catchment is huge. It is a massive collection of water—

**The CHAIR:** Thank you, Mr Moratelli. I invite you to put any further detail you would like to on notice, because we are now in the crossbench's time and I would like to go to Ms Boyd.

**Mr MORATELLI:** Yes, sure. I can.

**Ms ABIGAIL BOYD:** Thank you. Apologies for cutting you off, Mr Moratelli. I think we could all talk about this all week and still only get a little bit of the detail that we need in order to assess this project properly. I will direct my first question to Ms Taylor. We are being told that living with COVID in the future is going to mean, for example, keeping windows open and having quite good ventilation in our schools. I think schools have been pretty advanced when it comes to understanding the impacts of air pollution. We have got the Idle Off campaign; people are being encouraged not to keep their engines on when they are waiting for their kids outside schools. If you had to close the windows because of construction dust and dangers in your particular school, how would you also be able to have a COVID-safe school? Is that practically possible?

**Ms TAYLOR:** Thank you, Ms Boyd. I think it is a problem for most of the schools across the area—we're talking 20,000 students, the largest education precinct in the country—but particularly for Anzac Park school, which is a lovely, state-of-the-art facility for which the community is very grateful. The smiling kids feature on the local member's—the Premier's—website. She has not deigned to come and speak to them or their parents at all about this project, in answer to an earlier question by Mr Mookhey on engagement by MPs et cetera. There is a real problem there because there are no air conditioning systems. It is designed for passive ventilation, which would be ideal in times of COVID. It has an atrium through the middle of the block. It is not roofed. If you are going to absolutely protect it from pollutants, you would really need to cover that over and put air conditioning in every classroom.

Of course, that does not account for the outdoor play space. Anzac Park does not just operate from 9.00 a.m. until 3.00 p.m. It has an extensive out-of-school care provision—again, a modern school doing this to avoid the double drop-offs et cetera. There are children on site there from 7.30 every morning until 6.00 p.m. at night, outdoors. It does make it very difficult. One reason why we are particularly concerned is that we have been told there will not be onsite air quality monitoring at the school—certainly not in this baseline period. And for construction Transport has told us—the project team—that a monitor will be put at the construction site. Maybe they will give some warning of the silica dust that Mr Bridge talked about, but it will not show the impact of what is actually landing at the schools. On WestConnex there were monitors put at schools in St Peters and Haberfield, I understand.

We have no exact baseline data in the GRAL analysis and sensitive receivers shown in the EIS. They did go and do spot analysis near Cammeray Public School to the north, Wenona to the south and Neutral Bay to the west. They did not come and put one at the school closest to the site. We have the joys of public school principals not being able to speak out because they are State Government employees, so the burden falls on the P&Cs or the Parents and Friends at Catholic schools. It does make it very difficult. The other point in relation to COVID is research out of the United Kingdom—which has unfortunately had far more COVID cases than the good management in Australia and New South Wales, until the current outbreak—that people do worse with COVID where there is significant air pollution, understandably. It is a disease of the lungs, and you heard all about lung diseases earlier on. Thank you.

**Ms ABIGAIL BOYD:** Absolutely, thank you. From a practical perspective, then, if we are looking at approval of a project on the basis that we can mitigate the air pollution impacts on really high numbers of children in impacted areas, it is just not really going to—I mean, if you got a warning that there was silica, what would you do? You would have to presumably send them home.

**Ms TAYLOR:** We have asked for warnings to be done, actually. That was in submissions that were made on the EIS. If there was an exceedance coming through the exhaust stack, or something like that, during operation, could there be an alarm or a hotline to the principal? All of that was dismissed. The greatest mistrust, I think, of the process is that in the Government's response to all of the EIS submissions in relation to the concerns on air quality, they simply repeat the line that the Chief Scientist's committee report says that emissions from well-designed road tunnels create a negligible impact on background air pollution. But that report is founded on the data from the existing short Sydney road tunnels.

They have not gone forward to what is done overseas. Where they have done that as a technical paper, there are errors in it. In fact, the response that then came through to the EIS on the western harbour tunnel—after having spruiked that Stockholm's was also unfiltered, Transport responded and said simply back to the planning department, "The E4 Stockholm is not mentioned in the EIS," despite the fact they had included it in little technical papers people could pick up at the display, and so ignored the issue. They would not engage with the point that things are done differently overseas. We could hermetically seal all the classrooms and put air ventilators on; I would submit that should be the bare minimum that is done if they proceed with the current design.

**Ms ABIGAIL BOYD:** Which, of course, increases the cost of the project.

**Ms TAYLOR:** And would seem to be more expensive than putting filters on the stack, but they have never obtained quotes for doing that, as far as we can tell.

**Ms ABIGAIL BOYD:** Thank you. Mr Moratelli, thank you so much for WEPA's really extensive submission. There is a lot of detail in there and it is incredibly useful. One thing that we have not talked much about in this inquiry so far is the impact on Aboriginal heritage. Are you able to talk us through impacts on Aboriginal heritage in your area?

**Mr MORATELLI:** I might flick to Meredith Foley for that, if that is alright?

**Dr FOLEY:** Thanks, Mr Moratelli. Thank you for that question. We are aware that in the Flat Rock Gully area, right across the footprint for the construction there are a large number of Indigenous sites. Twenty

known sites will be impacted. The western harbour tunnel will run right underneath the whale rock at Balls Head. We know that Flat Rock Gully has had occupation from at least 6,000 years ago and that there are what are known as potential archaeological deposits in that site, which may be impacted by the flushing of water during the construction down Flat Rock Creek.

According to the Metropolitan land council there are likely to be large numbers of undiscovered sites, particularly in Flat Rock Gully and also at Clive Park, where they may be submerged. There is local knowledge of submerged fish traps in that area, and also of rock shelters which have been submerged. We do not know what the impact of placing the very large cofferdam close to those sites is going to be, but we are very concerned about vibrations and the impact that might have on the shelters and the rock formations, and also the impact, as I said before, of the water coming down through Flat Rock Gully. Just to make that a short statement, our concern has been that there needs to be archaeological expertise on site. It is not enough to give the contractors a short course; they are not going to recognise these sites, necessarily.

**Mr MORATELLI:** Could I just add to that, in terms of—

**The CHAIR:** Sorry, Mr Moratelli. Again, if you have any additional detail, please put it on notice. We have limited time and the rest of the time is the Government's.

**The Hon. SHAYNE MALLARD:** Good afternoon. Thank you for your submission and your evidence to the inquiry. I do not think there is a lot I can add to the conversation. It is pretty clear what your position is on the project. Can I just ask you collectively—and you can answer individually. Obviously you are a critic of the project, but also of the EIS. Did you make submissions in the EIS process along the way?

**Mr MORATELLI:** Yes, we did. We certainly pointed out the failings in terms of the proper assessment of contamination at Flat Rock Gully. In that regard, I really want to emphasise that the preferred infrastructure report that I think has largely been generated from our concerns—I have a real concern, and I have mentioned this in our document, that the preferred infrastructure report may not be exhibited. In other words, the people who brought to the attention of the regulator the potential problems—the serious problems—with contamination and other issues may not get to see how that is responded to and comment on Transport for NSW's response as part of the decision-making process. I think that is not acceptable.

**Dr FOLEY:** Chair, may I make one comment on the biodiversity impacted by these projects? We are in the middle of a biodiversity crisis. We are seeing the animal species crashing around us. They are part of the web of our lives. The environmental impact assessment failed to look at the full biodiversity in those areas. It only went to the letter of the law and looked at a couple of threatened species. Frankly, the mitigations that were suggested were risible in some cases, and I say this from a background of having worked with the environment protection association for a period of years.

**Mr MORATELLI:** Can I just add, in terms of the EIS, that some of the claims there are straight-out deceptive. The one made in the beaches link tunnel EIS about the impact of COVID saying that traffic levels have returned to pre-COVID levels, without taking into account the fact that public transport patronage has dropped off a cliff, is straight-out deceptive in the context of the EIS. I am surprised. I know that Terry le Roux has actually requested DPIE to look at prosecuting Transport for NSW for breach of section 10.6 of the Environmental Protection and Assessment Act in relation to making false or misleading statements, and they have not been prepared to do it. Given that planners rely so much on the honesty of the proponents, their refusal to take any steps when false or misleading statements have been pointed out—and we have pointed out some other ones, which I could go into—I think is really concerning.

**Ms TAYLOR:** Mr Mallard, in terms of the view of the school, there would be a mixed view of some people who are happy with the infrastructure projects and some who are not. As you will have seen from the submission, it is not saying, "Yes, there are concerns. You should have looked at other options." But it was presented as a road project; it is a road project. It just is that it actually be delivered properly. The fact of a triple—because the pollution stack at Cammeray will vent all the northbound western harbour tunnel, the North Sydney leg as well as the Cammeray through main leg and the main line from the beaches link tunnel, with no filtration or mitigation measures—is quite astonishing. That is now the biggest proposed stack on the motorway network. That, I think, is what has incredibly astounded people. That will be 42.5 kilometres of pollution coming out.

Part of the reason for the problem is, understandably, the State Government thought the Federal Government would have fixed the vehicle emission standards by now. They did not do it. There is a document that we will be sending in as a supplementary position where the ACTAQ committee almost begged the Federal Government to please get those standards in. We also know that with the end of the car industry here, the tariffs were removed from second-hand vehicles being sent to Australia. That also will extend the life of the more polluting vehicle fleet here, particularly delivery vehicles, for which there is a very strong second-hand market in



Australia. It is not so much the problem of the big truck companies, who buy the latest schmick one. They keep onselling and onselling their vehicles, and they often have a life of 30 years plus.

**Mr WILLIAMS:** Mr Mallard—

**Ms TAYLOR:** [Disorder].

**The Hon. SHAYNE MALLARD:** If you heard the evidence earlier from—is that the Chair?

**Mr WILLIAMS:** No, it is Rhys Williams. I was just going to answer your question—

**The Hon. SHAYNE MALLARD:** Sorry, I didn't realise there were four.

**Mr WILLIAMS:** —about whether submissions were made. Just to answer that question: Yes, submissions were made by the P&C to both the western harbour tunnel and beaches link EIS.

**The Hon. SHAYNE MALLARD:** And if you heard my questioning earlier of the asthma foundation—I think we are on a unity ticket about air quality. I grew up in western Sydney. I live out in the mountains now, but I know all about the two-day-old pollution that winds up in western Sydney and the higher levels of lung issues for kids and that out in western Sydney. I am really sympathetic to that. One small light at the end of the tunnel is this Government is a big advocate for electric vehicles and changing over the State Government bus fleet to electric vehicles. Over a period of time that will help improve the air quality, as well, but I know that is not a solution—

**Ms TAYLOR:** The estimates are that it will take 30 years, which is many generations of the lives of these kids, unfortunately.

**The Hon. SHAYNE MALLARD:** Well, 1990 seems like yesterday to me, so 30 years is all relative, isn't it?

**Ms TAYLOR:** Not for a primary school kid.

**Mr MORATELLI:** But there are other alternatives that would not cause the pollution at all, such as—

**The Hon. SHAYNE MALLARD:** I heard your evidence, yes. I just want to put on the record—I am the Parliamentary Secretary for Infrastructure—that I am very proud of this Government being balanced in its approach to transport. Yes, we are building long-overdue, connecting, major roads that are very important for the economy, but also we are putting a lot of money—almost dollar for dollar—into public transport. For the North Shore, of course, there is the metro line, the separate harbour crossing and the B-double buses up to the northern beaches. I know you would probably rather see more rail in that regard. But do you acknowledge that there is, more than any government in the past, a balancing act going on between roads and public transport in New South Wales?

**Mr MORATELLI:** I think the Chatswood to Sydenham line is a fantastic piece of infrastructure. The thing that amazes me, though, is that given that it is going to whisk you from Chatswood to Martin Place in 11 minutes and Barangaroo in nine minutes, and given that the congestion is worse along the Warringah Road corridor, and given the population growth on the northern beaches that is occurring around Frenchs Forest, why are you not looking at a Warringah Road connection before the beaches link tunnel is decided on? On the face of it, and on Ted Nye's work, it appears to be far more cost-effective, have a lot more capacity and is cheaper. It does not have any of these environmental downsides. I just do not know why the Government is not considering it.

**The Hon. SHAYNE MALLARD:** Is that in your submission to us? Sorry, I am not across—

**Mr MORATELLI:** Yes, it is. It is in the—here's alternatives. The other thing is about the beaches link tunnel—

**The CHAIR:** [Disorder] I apologise to interrupt again, but we do have our next set of witnesses waiting. We are running slightly over time.

**The Hon. SHAYNE MALLARD:** We are always cut.

**The CHAIR:** Mr Mallard, the alternative interpretation is that I always give you an extra minute. Either way, I do thank our witnesses on this panel. You have taken numerous questions on notice and you will have 21 days to return the answers after you receive the transcript from the secretariat. Thank you for joining us. You are excused.

(The witnesses withdrew.)

**LOUISE WILLIAMS**, Public Officer, Baringa Bush Residents Group, affirmed and examined

**ANN COLLINS**, Manly Dam Liaison Officer, Baringa Bush Residents Group, sworn and examined

**SANDY HOY**, Special Projects, Northern Beaches Secondary College Balgowlah Boys Campus Parents & Citizens Association, affirmed and examined

**COLIN CARDWELL**, President, Northern Beaches Secondary College Balgowlah Boys Campus Parents & Citizens Association, affirmed and examined

**The CHAIR:** I welcome our next set of witnesses. I am going to invite one representative of each organisation to make a short opening statement of no more than three minutes. Which organisation would like to go first?

**Ms WILLIAMS:** This is Louise Williams from Baringa Bush. It is easy to like the idea of the beaches link tunnel if you do not realise what it will really cost. So thank you very much for this opportunity. I represent the Baringa Bush Residents Group and we are part of a coalition of local community groups that connects about 5,000 families across Seaforth, Balgowlah and beyond. Ms Collins is our link within the coalition to save Manly Dam. The beaches link tunnel impacts some stunningly beautiful and environmentally unique parts of Sydney. That these otherwise protected areas can be enjoyed today is largely thanks to the past efforts of individuals, communities and governments who recognised their enduring worth.

Across the project at least 40 threatened species will be affected or even, in our area, locally extinguished, as thousands of trees are felled, as our suburbs and creeks are dried up, as groundwater is drawn down and as Middle Harbour is dredged. Take for example the permanent loss of up to 96 per cent of the water flow in Burnt Bridge Creek that runs from Seaforth along the lovely riparian corridor, teeming with life, to the ocean at Manly; the fate of the New South Wales mainland's last 23 breeding pairs of fairy penguins that forage in Middle Harbour and that will, according to the EIS, be at risk of hearing loss; or the proposed retention ponds above Manly Dam that would have failed multiple times this year based on rainfall data, washing contaminants into Sydney's largest swimmable freshwater lake.

There are so many details like these; however, I think what emerged from the voluminous EIS was one overarching theme, and that is that the most significant risk lies in rushing this project through. This was confirmed when we obtained independent expert reports commissioned by DPIE and tabled today. They concluded Transport for NSW did not use best practice nor the most recent data in assessing the risk to sensitive groundwater, freshwater and marine waters across the project footprint, and that multiple additional studies are needed.

In the media today Transport for NSW compared the forecast deterioration in water quality in Middle Harbour after the tunnel has been constructed to what occurs after heavy rainfall. But we cannot swim after heavy rainfall in Middle Harbour or in Manly Dam, and this effect would be every day, not intermittently. This is of course just one example. Across the project numerous risks have not been adequately addressed, particularly for issues like air quality and traffic flow. This really matters. The community is well aware that any compliance conditions imposed by DPIE can be appealed by contractors directly to the Minister, with no option for public consultation or legal challenge.

I suppose the underlying question is: Why rush? Over half of the northern beaches worked within the LGA even before COVID. This week the Productivity Commission forecast a long-term shift towards work from home and away from the daily commute. At the same time, every level of government is spruiking the benefits of getting people out of cars to address congestion and reduce emissions. Last month, Infrastructure Australia warned that road congestion cannot be efficiently relieved through the continued expansion of road capacity. In fact, it seems there has never been a better time to not rush through a \$14 billion toll road conceived over a decade ago and that, in promising better access to the northern beaches, risks degrading the very livability and environment that draws people to this area. Thank you very much.

**The CHAIR:** Thank you. I invite our next representative to speak. Mr Cardwell or Ms Hoy?

**Mr CARDWELL:** Thank you. Colin Cardwell speaking. The Northern Beaches Secondary College Balgowlah Boys Campus—or Bally Boys, as we know it—has a fascinating recent history. Only 10 years ago it would have been polite to suggest that its reputation was average. Last year it was second in the State for English. That is right; a non-selective State boys high school was second in the State for English. Over the last 10 years it has become the department of education's poster child for secondary education, especially for boys. The outstanding academic results, along with similar achievements in sport, music, art and drama, have rightly transformed the reputation of the school. A big shout-out to the principal and his team.

But it is not all good. In 2022 the student population of the school will be around 1,340. The school is designed to accommodate around 700, maybe 800, students at most. Even with only 800 students, the state of the school would get an F. It is poorly maintained, with very little outdoor space. With 1,340 students it really is at breaking point. Now add in two years of the destruction that COVID has brought and you have a community of children, teachers and parents who are under a tremendous amount of stress. A good education is a once-in-a-lifetime opportunity. The Bally Boys P&C does not have a position on whether the tunnel should go ahead or not. We just know that if it does go ahead, we cannot and must not allow the children and teachers of Bally Boys to experience any more stress.

The EIS has clearly identified a range of impacts on the school. The Balgowlah golf course construction support site, with a ventilation outlet and a wastewater treatment site, would be located directly across the road from the school. The impacts that we see on the students, teachers and staff at the school include truck traffic, disruption access, noise, vibration, poor air quality and health impacts and the loss of access to the small amount of open space that we have at Balgowlah Oval. We are not experts; there could be other impacts that we cannot foresee. Of course, other schools in the area, including Seaforth public and St Cecilia's primary school, will also be affected. We estimate that around 2,200 Bally Boys and their families, teachers and other staff would be directly affected during the six or more years construction period. Unless something is done, the education of a whole generation in the lower northern beaches area could be ruined.

Impacts have been identified, but the problem we have got is that there is no plan in place to address them. We are sure there is a lot that could be done to mitigate and offset the impacts, but this needs independent expertise that is focused on the needs of the school to create a plan that will work for all the stakeholders. Once an agreed plan has been put in place, it will take time to implement if we are going to do that without further impacting the school through the process. With a planned start date of less than two years away, what we are asking here today is that this project be paused until a plan can be agreed upon and implemented. For the sake of the children and the teachers and the school staff, this needs to be done right. To support this opening statement we would also like to table a presentation that we have sent through as well. Thank you.

**The CHAIR:** Thank you. Can each of the representatives please email through their opening statement to the secretariat, which will assist Hansard to properly report it. We will now kick off with questioning from the Opposition. I will start with questions first to Ms Williams. You were making reference to public statements that were made this morning by Transport for NSW in response to—was it a GIPAA application undertaken by your group?

**Ms WILLIAMS:** It was undertaken by the coalition of community groups. Our group is Seaforth and there is Balgowlah and the application was actually made by the Balgowlah Residents Group. The response was in *The Sydney Morning Herald* this morning, so it did not come straight to us.

**The CHAIR:** In the response Transport for NSW described this project as having a minimal impact on surrounding groundwater, creeks and seawater. Do you agree with them?

**Ms WILLIAMS:** I am not in a position to agree or disagree. What I am in a position to do is read the statements by the experts that were commissioned by the department of planning. Those documents have been sent to all of you. They say that the assessment has been inadequate. One of the most telling things was in the EIS. It talked about a 96 per cent reduction in flow in the entire catchment and then it just sort of flippantly said, "There will be feasible and reasonable mitigation measures." I write those sorts of documents professionally. As scientific or technical terms, "feasible" and "reasonable" are subjective and tell you nothing.

I guess my biggest concern is that we are going ahead in a very, very beautiful and sensitive area that belongs to everybody, on a promise. We do not know what those mitigation measures will be or how they will work or what they will cost. For somewhere like Burnt Bridge Creek it might be—I will be quick—an interesting case study. The voters of the then Manly Council area paid an environmental levy to have this area looked after and rehabilitated. It has got a walking track and it is the bike track to Manly. One of the trees that is going to be cut down even has its own Instagram page. This is a much-loved area, and it also hosts an endangered flying fox colony. Our concern is, as others have said, that we do not oppose a tunnel, per se. What we are really concerned about is that we do not know how and if this creek will be protected and we will have no further opportunity to discuss that with anybody. We just have to believe that contractors will look after it.

**The CHAIR:** Just to be clear, when you are talking about the experts you are referring to the University of New South Wales specialists who were hired by the department of planning.

**Ms WILLIAMS:** Yes. You might note in the UNSW document that specialists said that the treatment of Burnt Bridge Creek within the EIS was just flatly unacceptable.

**The CHAIR:** In terms of your call for action, are you calling for more transparency around these particular issues, or are you calling for a mitigation strategy, or both?

**Ms WILLIAMS:** I think that, as many of the other speakers have mentioned, for the impacts in our area the work has not been done yet. You cannot ask people to support or oppose a project if they cannot understand what the impacts will be. You know, we have got part of the story, and then we have got things like "negligible", "feasible", "reasonable" and "if convenient". We do not know how our area will be looked after and whether it will be or not. We also know full well that compliance conditions can be appealed and overturned.

**The CHAIR:** [Disorder]

**Ms WILLIAMS:** Go on.

**The CHAIR:** Sorry, I was just going to ask my next question to the school representatives. If there was anything further you would like to add, please do.

**Ms WILLIAMS:** No.

**The CHAIR:** I am just going to ask one question to the school representatives before I invite my colleague to ask questions. I understand you are calling for a pause to the project for the development of the plan. Can you describe what level of interaction you have had with the Government, Transport for NSW or the contractor that would allow your school community to have confidence that its concerns have been addressed?

**Mr CARDWELL:** Colin Cardwell here. We have had one meeting so far with the project team. We tried to put the case to them that we need to spend some time putting a plan together and that needs some of its own funding. I think the challenge has been, of course, though, that the response we have really had is that it's all going to be fine and it's all going to be okay. But without having somebody focus on that, from the school's perspective, it is very difficult to have any confidence in that. We have a number of stakeholders. Some of the solutions might involve the dismantled golf club across the road and, of course, that is council land. Some of the road issues and transport issues locally will involve the council. There is the department of education and there is the school itself. So there are a lot of stakeholders involved that all need to be brought together to try and find a solution that will mean that there is a net zero impact on the boys.

**The CHAIR:** Ms Hoy, if there is anything you wish to add, please do. But have you actually had the opportunity to speak to Transport for NSW or your local member or anyone else who is actually from the Government and not from the project team about addressing your concerns?

**Ms HOY:** Sandy Hoy speaking. Colin Cardwell has been involved with discussions with the local State member. I will pass on to Colin to answer that.

**Mr CARDWELL:** We have had one meeting with James Griffin and, again, put this case forward to him. I think it was through him that the initial conversation with the project team has come about. Although, it is a clear demonstration here that we spoke to him back in May and then the initial meeting was three months later. This all takes a long time, and to do a thorough process is going to take time. Our issue is not the tunnel as such but about doing it right. To do it right is going to take time.

**The Hon. MICK VEITCH:** My question is to Ms Williams from the Baringa Bush Residents Group. In your earlier responses to some questions you were talking about the, I think the words were, "feasible" and "reasonable" mitigation methods. Can I just ask you how you would rate the communication with the agencies around what that mitigation might look like?

**Ms WILLIAMS:** It has been zero. Absolutely zero. You know, you just keep getting—we are a group of about 5,000 families across this area and we have got a lot of professional expertise in the group. People have asked, "Why wasn't there an air quality monitor there? Why wasn't there this?" We just keep getting referred back to the EIS. As a group we have had absolutely zero contact with Transport for NSW except for the one-way video, sort of, I guess they were briefings at Christmas when the northern beaches was in lockdown. Obviously, we are all used to being online now. But this feels a bit like an ambush for the community because this entire thing has been pushed through in COVID circumstances where the community cannot meet and where we cannot go and talk to people. We have had a couple of meetings with the department of planning, which have been very—what could you say? Cards very close to the chest. Ms Collins, have you got anything else you could add to that—if you do not mind me throwing to my colleague?

**Ms COLLINS:** Thank you, Ms Williams. Ann Collins from Manly Dam. In terms of consultation, no, very little. The difficulty is that you look at the reports—and we have had to GIPAA to get further information on many of these reports. Even if you look at the DPIE group Environment, Energy and Science, they have concerns about the depth of knowledge in the coverage and the environmental impacts and have asked for some things to

be redone. So have Bitzios traffic and so have even Northern Beaches Council. Despite their commentary the other day, their submission has a very large number of concerns about the environmental impacts and also about the traffic impacts. They might well be in discussions with Transport for NSW, but none of the very well-researched reports that have been put through to either the EIS or the parliamentary inquiry has had follow-up processes.

**The CHAIR:** Thank you. Opposition time has expired, so it is over to Ms Boyd for crossbench time.

**Ms ABIGAIL BOYD:** I will just pick up on that line of questioning in relation to this EIS, I guess firstly to the Baringa Bush Residents Group. As I understand it, you sort of came together in order to share the burden of understanding this EIS in order to actually be able to contribute meaningfully in the process of a consultation. How much time did you have between when you first found out about it and when you were expected to make a submission? Did you ask for an extension at any time?

**Ms WILLIAMS:** Yes, as did many of the schools. This came out obviously just before Christmas, during the COVID lockdown on the northern beaches, with a large number of schools profoundly affected. It was also, I imagine, an absolutely terrifying surprise to Balgowlah Boys that the stack and the works had been moved up the street across the road. We were in a situation where we were not able to talk to each other, we were not able to move around and we were not even able to leave our area and we were supposed to respond to this. We went to Ministers and we went to—as a coalition, not separately—a long list of school P&Cs, the Catholic schools association and community groups. We are a community group that is registered with the council. We have that sort of format in our area. So we have a network of community groups that also meet with the council. The council asked as well. It is very stressful to suddenly find your world is going to change during a COVID lockdown.

**Ms ABIGAIL BOYD:** I can imagine [disorder].

**Ms COLLINS:** One of the tricky bits was that all the experts were then busy themselves looking at the report, because we all had the same time to look at it. So you could not actually contact Northern Beaches Council to talk to their environmental people about the impact on your area because they were busy doing their own report. They actually put their report in before we had even seen it as part of the community. Our community group put together a webinar and bought a licence for Zoom, which gave us 500 people. We oversubscribed that and gave people about, I don't know, five days' notice that it was on, and it was packed. That is an indication of people's interest in that situation.

**Ms ABIGAIL BOYD:** Ms Williams, at the beginning of your opening statement you said that it is easy to like the idea of the beaches link tunnel if you do not understand the true costs. I think that is summing up the vibe of a lot of the submissions that we have received. I just wanted to talk to you about the benefits and the costs in your area. Particularly, I notice in your submission you talk about how there are, for example, parts of Frenchs Forest that are predicted to actually end up more congested than before the tunnel. What are the actual benefits to the area?

**Ms WILLIAMS:** I do not know if both of us can answer. I think that where we are in Seaforth the traffic will be 16 per cent slower around Balgowlah and 10 per cent slower on Wakehurst Parkway—based on the EIS; we are not making those numbers up—because the tunnel is not really yet integrated into the local road systems, so you will have traffic slowing down on approach. From a traffic point of view, there do not seem to be any benefits for this particular area, which I do not think is really well understood. The other thing is that we have had great success with the B-Line bus increasing people's experience of public transport. Public transport is very popular.

We do not yet know how this is going to play out. What traffic on the Spit Bridge is local going to school? What traffic is commuting? How many people work from home? We suggested that it would be very popular on the northern beaches because we are famously the insular peninsula, you know. We like staying where we are. I think probably a very key point for the northern beaches is that we are an interesting area and we are conservative economically and socially, but we have a very, very high regard for our natural environment. That possibly could be seen in that the only time we have ever not voted for the Liberal government has been over environmental issues. The environment is really precious. A lot of people have invested a lot of love in that, you know, with bush regeneration. They really care about their echidnas and their flying foxes. Ms Collins, you probably know more from Manly Dam's point of view.

**Ms COLLINS:** [Inaudible]

**Ms ABIGAIL BOYD:** Are you on mute?

**Ms COLLINS:** Sorry. It is a difficult one to talk about the benefits. We have been promised that we will be getting travel savings, and that seems to be the major thing that we are promised. That is when people

think, "Oh, I hate sitting in traffic. If I get some savings, that would be great." But I think that people have not been sold the whole story. Even the concept of where it now takes 35 minutes to get into town from Balgowlah and we are going to be saving 38 minutes to get to town from Balgowlah is sort of weird—because I am going to get young in the process. The other benefits of it might well be for large industry to come through with the trucks and freight that will then be allowed to come and the benefits to have more people coming through on the weekends and during the week and so forth. I do not think that has been sold to the northern beaches people in any way, shape or form. I think the costs are huge.

**Ms ABIGAIL BOYD:** I note also in your submission you talk about "a majority support for public transport options". Can you tell us on what basis you claim there to be a majority support [disorder].

**Ms WILLIAMS:** That was from a survey that was done and it divided the seat of Warringah up into the different wards. The only part of that ward that had an over 50 per cent support for the tunnel, per se, was Mosman. The other areas—Balgowlah, Seaforth and Manly—preferred public transport. That was pre-COVID.

**Ms ABIGAIL BOYD:** Was it by a lot?

**Ms WILLIAMS:** Yes, it was around 30—I am just trying to think. I would have to send it to you, if that is okay. Do you know, Ms Collins? Have you got that survey?

**Ms COLLINS:** I have got it, but I cannot put my finger on it. If we can take that one on notice, that would be great.

**Ms ABIGAIL BOYD:** Yes, that would be great. In your view do you think that this project will actually reduce congestion on the roads in the long term?

**Ms WILLIAMS:** Personally I do not because, having lived in a number of international cities with lots of cars, putting more people in more cars does not reduce congestion; putting more people in fewer vehicles does. I am not an expert. I just think it is logical. That is what Infrastructure Australia said I think only last week, "You can't alleviate congestion just by building more roads." I feel like we have a golden opportunity now to try some of those light-touch options, like really analysing our traffic and seeing if we have local traffic that is on the Spit Bridge that could be taken off through better school buses. But what in fact happened at Christmas as well when the EIS was dropped was our bus services were reduced. Have you got any more to say on that, Ms Collins?

**Ms COLLINS:** The congestion on the roads will be huge. I think the northern beaches submission highlights that in a huge way. They have actually asked Transport for NSW to look at a whole range of local intersections as a result, and so does the Bitzios independent report that is being done on the local traffic implications. Simplistically, the amount of traffic that comes from Sydney Road on to, theoretically, the Spit Bridge now is about 55 per cent of what goes there. All of that is going to get shoved through that little winding road that goes past the golf course and then into the tunnel, right outside the school at Maretimo Street and down that space.

Congestion there now is already gridlocked on a Saturday morning or on a weekday trying to get around the shops and all the construction around Kenneth Road, Roseberry Street and the Manly Vale area. And they have all been identified as hubs based on having a B-Line bus stop there. The concept is that they have a B-Line bus stop, so let's not—I don't get it. Why do we want to build a tunnel that is three lanes both ways, bigger than underneath the Sydney Harbour Bridge, spewing out into the middle of Manly Vale, which is already gridlocked back up the road of an afternoon? We will have congestion down the northern beaches, yes.

**The CHAIR:** Ms Collins, I invite any further detail you may wish to give to be given on notice. We will now go to the Government for its questioning time. Mr Mallard?

**The Hon. SHAYNE MALLARD:** That would appear to be the case. Thank you, Mr Chair. Thank you to the witnesses for your submissions and your evidence today. I think we have pretty much explored your position fairly clearly—you are not supporters of the project. You are talking about the benefits of the infrastructure and you are talking about reduced travel times, which is what government often talks about when it does these projects. To me the benefits are the unclogging and assistance to small businesses and medium businesses—and there are quite a lot of small manufacturing businesses on the peninsula. I have been up there to get some goods and services for my catering business through my partner in the past. They need better access to the markets of Sydney for their goods and services. Do you acknowledge that is a benefit that needs to be understood?

**Ms COLLINS:** Sorry, who are you addressing your question to?

**The Hon. SHAYNE MALLARD:** Anyone can have a go at that one.

**Ms WILLIAMS:** I think that of course the benefits need to be understood. I do not think that—you are saying that we are opposing the project, but we are actually talking about the impacts of the project. We are not

opposing the project, per se. From what we know about the project now, what we can see in the EIS is increased congestion around the entries to the tunnel, which will create a worsening local traffic situation all the way to Frenchs Forest and probably down to Manly. That will make it difficult for the people that you would like to take advantage of the tunnel and where it goes, which, yes, that is obviously desirable for businesses to get into the tunnel. I think the real key, I imagine, with our group is that we really want the impacts better understood and better studied so we know what is going to happen with the traffic around the tunnel portals, if that makes sense. Sorry, I did not mean to jump in.

**The Hon. SHAYNE MALLARD:** That is something we could pick up on in our recommendations, to make sure we have got good oversight on those tunnel portal points. We had that evidence from North Sydney Council or the people from North Sydney earlier in the week or last week. That is a good point. Are there any other members?

**Ms COLLINS:** I think it is really around at what cost. I am very supportive of small businesses and I am very supportive of the suppliers. I know that Brookvale is a major hub as is Manly Vale and so forth, but they are clogged to the gunwales. It is not about getting into the city and out again, necessarily; it is about getting stuck when you land in the local traffic network. I know there was a major study done by Transport for NSW on Brookvale and that industrial area with Northern Beaches Council because that is an area where also they are looking at putting in more housing and so forth. But similarly—and we asked for a preferred infrastructure report into the similar sort of thing happening around the Manly Vale-Balgowlah area because it just has not been considered properly. There are a whole range of policies and housing strategies and tunnels and development and so forth that are just all piling on top of it.

Thinking about it, if you build a tunnel you have got that construction site on top of that as well. You are already congesting Spit Bridge with two access points being congested because they are being built for six or seven years. The place grinds to a massive halt. Those small businesses that might have got off the ground again after COVID and having all of these sorts of things are going to be isolated and stuck anyway unless we do some other light touches and spread it out and do some staggered development and look at it and consider properly the recommendations in the EIS. For the things about the groundwater and Middle Harbour, his report said you need to be studying for a year to see what the implications are. They have taken six sample points. It is just not enough information to make those grandiose plans.

It is not an easy job. I am not saying it is an easy job. But please do not do it half-heartedly and look back and go, "Oh, whoops. I wish we'd done X, Y and Z", when we have some opportunity to stop and think at this point. The health Minister says that this is the biggest change that we have had since the last pandemic, so let's grab it by the horns, let's look at the processes and let's look at the changes and incorporate them in the planning going forward, rather than just bowling down the back-of-the-envelope plan. Where are we going to end up? Sorry. Thank you.

**The Hon. SHAYNE MALLARD:** No. You have made your position clear. Are there any other contributions?

**Mr CARDWELL:** Yes. I just also wanted to reiterate that we are not opposed to the tunnel either as a P&C. We are neither for nor against it. From a personal perspective, I think the potential is that there are a number of benefits for the tunnel. But once again the thing is that it is being rushed through and there is not enough consideration for the impacts, in our instance, for the school. The construction site is right next to the school. There are going to be impacts. But we are only just starting conversations about what might be done to mitigate those. It is just not enough time. I think it needs to be paused.

**Ms HOY:** Sandy Hoy here. The only benefit for the school is any mitigating measures and compensation aspects that we might be able to negotiate with the State Government. During construction it will be just horrendous around that school site. The only benefits would be after the construction when everything settles down and any benefits to the school infrastructure or to the open space at Balgowlah Oval across the road. That is really the only benefit of the tunnel that we could see.

**The Hon. SHAYNE MALLARD:** I said in questioning other witnesses on this inquiry and other inquiries that you need a plan B. You really need to negotiate a good package of benefits for the school or for your area. I guess doing that directly with Transport for NSW is important. But you have been doing the right thing; I heard from someone earlier about talking to your local members and getting them to make representations around the impacts on the school and how to make a better outcome. You are doing that?

**Mr CARDWELL:** Can I just respond to that?

**The Hon. SHAYNE MALLARD:** Hang on, Mr Cardwell. Ms Hoy was about to say something.

**Ms HOY:** No, that is okay. I will hand over to Colin Cardwell.

**Mr CARDWELL:** I think that—sorry, with that interruption my thoughts have escaped me.

**The Hon. SHAYNE MALLARD:** I was talking about negotiating a package of benefits [disorder] with the local member.

**Mr CARDWELL:** Yes, sorry. There are conversations that we have had with the local member, but we are a group of volunteers. This is a complex project. I do not understand why it is our responsibility to look into this. Surely there should be some funding put in place to investigate what is required for the school.

**The Hon. SHAYNE MALLARD:** We look to the community to give us feedback. There is a—

**Mr CARDWELL:** Feedback is one thing, but there is a plan that needs to be put in place.

**The Hon. SHAYNE MALLARD:** I think that is the way government usually operates, to get that feedback and then respond. Although in the EIS and in the approval there will be conditions there, I expect. They will pick up on this inquiry and some of the sensible recommendations we might make. That will do me, Mr Chair. That is it from the Government. Do I get a reward?

**The CHAIR:** There is one minute remaining. The 30 second gift that you have given me is most appreciated, Mr Mallard. I thank witnesses for their extensive submissions to the inquiry. You have taken some questions on notice for which you will have 21 days to return an answer after you receive the transcript from the secretariat. You are now excused.

**(The witnesses withdrew.)**



**GABI BROWN**, Facebook Administrator, Rozelle Against WestConnex, sworn and examined

**BILL HOLLIDAY**, Committee Member, Rozelle Against WestConnex, affirmed and examined

**BEN PRAG**, Member, Rozelle Public School Parents & Citizens Association, affirmed and examined

**ROBERT KELLY**, Convenor, Western Harbour Tunnel Action Group, affirmed and examined

**The CHAIR:** We are just having some issues connecting Mr Kelly to this panel. Whilst the secretariat continues to try to resolve those issues, we will welcome our three witnesses who are here with us now. Thank you for joining us. I will ask each group to make a short opening statement and then we will see whether or not we have succeeded in having Mr Kelly join us. I will invite a representative of Rozelle Against WestConnex to make an opening statement of no more than three minutes if you so wish.

**Mr HOLLIDAY:** My name is Bill Holliday and I represent Rozelle Against WestConnex. Motorways do not solve city traffic problems, railways do, and my submission No. 20 calculates by how much. It demonstrates that one rail line can carry 12 times as many people in peak hour as a lane of motorway. As well, there is no need for parking space at each end of the journey, no exhaust pollution or particulates, no road deaths and commuters can work while they travel. Our current system is a radial one without enough north-south connecting lines. Sydney needs a properly interconnected railway network like Tokyo or London. One aspect of the project needs a redesign: the entire WestConnex tunnel system south of the harbour is actually below sea level. There are no waterproof doors and it would flood completely if the proposed under-harbour tunnel were breached by a truck explosion. Either the western harbour tunnel should be dug through solid rock well below the harbour floor, or the connecting tunnel should ramp up to above sea level before it connects to the Rozelle interchange. This vulnerability to terrorist attack needs to be fixed now while the tunnel is at the pre-construction stage. Thank you.

**The CHAIR:** Thank you, Mr Holliday. I will invite Mr Prag to make an opening statement if he so wishes.

**Mr PRAG:** Thank you, yes. Firstly, I would like to thank members of the Committee for giving me the opportunity to speak today. I have actually tabled a document for your consideration, and I would like to refer to it in a minute. I have been a member of the Rozelle Public School P&C since my daughter started kindergarten back in 2015. My evidence to the inquiry today relates primarily to the increased truck emissions resulting from the planned dive site opposite the school. But more concerning to us is the completely insubstantial response we received when we raised these concerns in our submission to the original environmental impact statement. If I could draw your attention to figure 1 in the supporting document I have submitted, it shows the proposed WHT2 dive site on Victoria Road directly opposite the school, which is also right next to the Darling Street junction, one of the busiest intersections in Sydney.

According to the data predictions in the EIS, there will be a 30 per cent above-normal increase in heavy vehicles during the morning peak period to service this site. Incredibly, the Government brushed off our concerns about a massive increase in diesel emissions with a one-line response to the effect of, "Local air quality is largely dependent on background air quality." A simple Google search will tell you how inaccurate and irresponsible this statement is. But here is some real data: If you look at table 1 in the document I submitted, it shows the readings from the Government's closest air quality monitoring unit, which is over 200 metres from Victoria Road and is surrounded by trees. The screenshot is from the Department of Planning, Industry and the Environment's website for 1 June this year—it was a pre-lockdown weekday. As you can see, even the maximum hourly averages for Rozelle fall into the Government's "good air quality" category. Now, compare those readings to the engine emission pollutants, nitrogen dioxide and ozone from the unit that we have on our own school grounds.

In table 2 you can see the school's average readings over the whole day are worse than the Callan Park monitor, but our maximum hourly average during rush hour is much worse and takes us into the zone regarded as "poor". Shockingly, it would only take a 10 per cent increase in ozone during morning peak for the children's air quality to jump into the "very poor" red zone. And, as the Government has already told us, diesel emissions will increase by 30 per cent during construction. We have always said that putting a dive site of this scale next to a primary school is extremely irresponsible. That opinion can hardly be considered controversial. Surely any consultative process that is worth its salt—that considers the environment and the impact on hundreds of primary school children—would have recognised this and resulted in alternative plans. Thank you very much.

**The CHAIR:** Thank you, Mr Prag. We now welcome Mr Kelly as well, who has joined us. Would you like to make a short opening statement of no more than three minutes?

**Mr KELLY:** Yes, thank you. I am a civil engineer by profession and I have run many large-scale construction projects in Australia. More recently I ran a large property investment firm and I am very familiar

with the concepts around risk and return on investments. The first comment I would like to make about the project goes to the business case and the post-COVID-19 impacts on the project. Forecasting tunnel volumes in Australia has historically been very wide of the mark—for example, the Sydney Cross City Tunnel, where traffic ended up being one-third of the forecast 85,000 vehicles per day, and the Clem7 tunnel in Brisbane, where traffic ended up being one-quarter of the projected volume. These were clearly grossly off the mark. As it stands at present, and as was discussed in the hearings on Monday of this week, the project benefit-cost ratio at the moment shows this project to be pretty marginal. It was expressed as 1.1 on Monday.

Taking into account the COVID impact, there are many changes that have occurred which are likely to materially impact on the project. For example, working from home has now become an entrenched concept with forecasts varying from 10 per cent to 30 per cent of the workforce working from home long term. Secondly, people are now more inclined to live, shop and socialise more locally. Property experts are forecasting more decentralised office workers, likely leading to a significant change of traffic patterns and a move away from the centralised dominance of the Sydney CBD. Given all of the above impacts and the enormous overestimation of traffic, it is clearly possible the project could turn out to be a financial catastrophe. It would seem irresponsible not to pause the project now or to use the delays being experienced to re-evaluate the business case for the project. Indeed, it may not even be possible to responsibly re-evaluate the project during the current COVID outbreak. In the current conditions no consultant will take any responsibility for any forecast produced; therefore, it would be better to defer further consideration of the project business case until the economy has stabilised post-pandemic.

If the tunnel is to proceed, the major concern of the Western Harbour Tunnel Action Group is the environmental risk that the dredging of contaminated sediments poses to Sydney Harbour, which is the jewel that differentiates Sydney around the world. The casualness with which this risk is viewed is summed up in the last two paragraphs in the EIS of section 17.4.2, "Marine water quality". One paragraph states, "The dredging program would not have a significant impact on marine water quality," and that localised increases in suspended sediments will not be a problem due to the "rapid dispersion in Sydney Harbour". The next paragraph states that shallow silt curtains shall be used around dredging activities as deep silt curtains cannot be used due to "tidal currents and maritime traffic within Sydney Harbour". These paragraphs are essentially a concession that contamination will spread through Sydney Harbour, which of course is totally unacceptable. There must be stronger controls and standards imposed on the project to mitigate against these risks. In closing, smart cities around the world are planning for more pedestrians and bicycles, fewer cars—even pre-COVID—and these things have only been reinforced further by the onset of the COVID pandemic. Thank you.

**The CHAIR:** Thank you, Mr Kelly. We will now begin with questioning, starting with the Opposition. I might ask a few questions. Can I first direct these questions to you, Mr Prag. You make reference in your submission and in your opening statement to the number of truck movements that will be near your school. Can you just tell us about whether or not that is creating any apprehension in your school community?

**Mr PRAG:** I think so. It is not just the number of truck movements; it is how they are going to be funnelled in and out of the dive site. Again, in the diagram you can see that there is a plan for trucks to turn across Victoria Road. This is obviously an area that is exceptionally congested during the morning peak. We are going to have trucks sitting, idling, waiting to get in and out of the dive site. That is basically going to be right next to the Darling Street junction where there is a huge amount of congestion. The increase in diesel emissions is going to be quite concerning. Yes, I think there is a general apprehension amongst the community and parents. We are talking about primary-school-aged children here. There is also a preschool onsite. Yes, there is a great amount of apprehension—definitely.

**The CHAIR:** Have you had the opportunity to have this dialogue directly with Transport for NSW or the Government about the fears your school community has?

**Mr PRAG:** In this case we have not had an opportunity. Obviously we were affected by WestConnex stage three, particularly stage 3A, in the past. We had discussions with people from the—I believe it is defunct now—Sydney Motorway Corporation, which was kind of like a quasi-government, quasi-private company, who did come in to discuss things with us. It was not a constructive forum. We had issues whereby somebody leaked something to the media and then they basically refused to come back in again. In the past these things have been suboptimal, I would say. In this case we have had no offers from the Government, Transport for NSW or anything like that to discuss these issues with us at all. Obviously, there are 26 chapters in the EIS; the response is almost the same size. Trawling through the response to the EIS, it is clear that our concerns were just brushed off with throwaway statements, "Oh, don't worry about it. It's only a short amount of time. Don't worry about it." No data to back up what they were talking about, really.

**The CHAIR:** Sorry, Mr Prag. You said that the last meaningful consultation was to do with the 3B part of WestConnex. Is that right?

**Mr PRAG:** Yes.

**The CHAIR:** So you have not actually had any direct contact about the western harbour tunnel?

**Mr PRAG:** Not that I am aware of.

**The CHAIR:** We have heard evidence from other schools on the other side of the harbour that says that they have. Were you aware that those schools were getting consultation?

**Mr PRAG:** I was not. I have brief conversations with them occasionally, but I was not aware that they had been directly approached. Like I said, I am aware of what the P&C has been approached with. It is possible that the school management, the principal, has been approached. We have a new principal, he has just come into the job, and the principal's position was vacant for some time while they were trying to get a new principal, so it is possible—I don't know—that there was an attempt to contact the school and discuss it with us. But, look, I am the point man for all of these discussions in terms of P&C—I have been doing it since WestConnex—and nobody has ever approached me or come to me.

**The CHAIR:** I was actually going to ask Rozelle Against WestConnex to respond and give your experiences with the cumulative impacts of all of these projects which are taking place in the Rozelle community—those which are to do with WestConnex and those which are to do with the western harbour tunnel. Equally, I imagine your community will be affected by the western metro as it is built, too. I would be very interested. Can you describe how your group feels about the cumulative impacts of these projects on the inner west?

**Mr HOLLIDAY:** I would just like to mention that Gabi Brown has a statement and she was passed over in terms of the statement, so if she could be heard.

**The CHAIR:** Sorry, I did say one representative of each organisation to allow for—

**Ms BROWN:** That is fine.

**The CHAIR:** I am happy for Ms Brown to table her statement.

**The Hon. SHAYNE MALLARD:** Mr Chair, the Government is prepared to cede some of our question time to hear the statement. We do not really have a lot of questions on this one.

**The CHAIR:** Thank you to the Government. That will permit us to hear from Ms Brown if she wishes to make that statement as well. Please go ahead, keep it short, but then can you respond to the question? Can I ask the secretariat to suspend the questioning time right now that you are keeping. Whatever time Ms Brown takes will be deducted from the Government after Mr Mallard's very generous offer.

**Ms BROWN:** Thank you. My name is Gabi Brown. I am a member of Rozelle Against WestConnex and the Rozelle Against WestConnex Facebook administrator. I wanted to speak to the fact that we are deeply concerned about the impact that construction will have on people's physical and mental health and, post-construction, the impact that the pollution will have on their health. The pollution that we see coming out of these unfiltered five stacks will cause serious damage to residents and the surrounding suburbs. We have made recommendations that filters be put on the stacks in the tunnels and that pollution monitors be placed next to these stacks and exit portals for the public to be able to view the level of pollution coming out every single day. Based on past experience with the St Peters interchange and at Ashfield, we have also seen that WestConnex is already a project that causes physical damage to properties, leaving residents to move out and sell their homes far below original market value due to WestConnex. From this we believe we can safely assume that the western harbour tunnel will cause the same damage to residents of the area.

Rozelle Against WestConnex believes that the State Government should complete an infrastructure construction health impact study. We also would like confirmation that the construction of the western harbour tunnel will not delay delivery of the WestConnex Rozelle Rail Yards public park. The lack of filtration from these stacks or exit portals also means that particulate matter 2.5—an incredibly dangerous form of pollution known to cause heart disease, lung cancer, respiratory issues and strokes—will be spreading all across the surrounding suburbs. There is very clear evidence that people who lived downstream of the M5 East Turrella plume saw a 44 per cent increase in lung cancer rates, and that study was carried out by the CSIRO. That is what I mostly wanted to speak to.

In terms of the cumulative impact that we have faced over the last five years from WestConnex and the western harbour tunnel, I can only speak personally as the Facebook administrator. I have had many people come to me desperately joining the group and saying, "I can't sleep at night", "The construction is terrible," and "I have been trying to negotiate a rent reduction but, speaking with Fair Trading, it is completely impossible." That is what I have seen. The mental and physical impact of that noise construction going—I have evidence that it is

going into the wee hours, at three in the morning, with people unable to sleep despite being given headphones, or being offered to move out or, again, trying to sell their house below market value so that they can get out of the area. I think that has been incredibly degrading to people's sense of connection and community to the area and to their mental health. Our co-Facebook administrator now lives in Byron Bay because she lived on one of the streets that was very, very deeply impacted by the construction, so I can speak to that. Bill, did you also have something that you wanted to talk to about the cumulative impacts that we have faced?

**Mr HOLLIDAY:** No, I think you have done that very, very well there, Gabi.

**The CHAIR:** Thank you. I was just going to ask a question again of Rozelle Against WestConnex about—can you tell us about the experience your members have had with the acquisition and substratum acquisition processes with WestConnex? What type of meaningful changes do you think are necessary for this project?

**Ms BROWN:** How would you define "meaningful changes"?

**The CHAIR:** To be fair, it is really for you to define what is a meaningful change, not really for me. It is more a case of having your experience with those acquisitions, particularly the substratum acquisitions, are there any views you have for the Committee as to the type of changes you would like to see for the western harbour tunnel project on that particular question?

**Ms BROWN:** I have not spoken to the residents around the Birchgrove-Balmain peninsula area who will be affected, so I cannot say exactly what they would want out of that, honestly. But I just know from the residents of Callan Street and Springwood Street that were completely ripped up in the process, I think they felt that especially rat runs were a big concern. With their dogs, these incredibly huge trucks—they are huge, they carry 18 to 23 tonnes. They definitely have safety concerns about rat runs occurring in their backstreets. I think that is one thing that could definitely be alleviated, especially with Rozelle Public School being a school where there are many young families and children walking around. Any safety—I think that would be quite a reassurance to know that the trucks will not be parking in streets, blocking off areas and also causing safety concerns for people walking around with new, extra rat runs to be used by these trucks. I think that is one thing that I can speak to.

**The CHAIR:** Mr Kelly, can I ask you about the action group. Can you tell us a bit about your action group—what it is, how many people are in it, where you are based and what your basic view and call to action is about this project?

**Mr KELLY:** Sure. We have got 80 to 90 local residents in Balmain and Birchgrove and we have attended meetings variously through the last probably three years, so I guess we are combining the views of the local residents here. I think there is a general concern about a lot of the matters that were raised earlier. As I said earlier, I think COVID alone has to throw a huge question mark over the analysis of the project because, for example, if companies were to have people working from home, say, two days a week and they settled on that as a strategy, that would mean that, ultimately, you would have an equivalent of about 40 per cent vacancy rate in Sydney office buildings because companies would rotate the space between the staff. So you would not need another office building in Sydney for another 15 to 20 years. These are the kinds of things have huge impacts on traffic volumes. People have now gotten used to working from home and companies can now see that it works, so the fear that they had before that people could not really work from home has gone. That is a very huge behavioural thing. As I mentioned, the sediments was really well covered this morning by Bill Ryall and others, so I do not think I need to go back into that.

**The CHAIR:** Mr Prag, are there any specific, immediate steps you think would assist your school community that this Committee could meaningfully help you get?

**Mr PRAG:** I think you could abandon the WHT2 dive site. There is a precedent for it: the Darley Street dive site as part of WestConnex stage three was abandoned. I appreciate it would make the project take longer, but we are dealing with the health and safety of primary-school-aged children here. It is a wholly inappropriate site for a dive site. Short of mandating electric trucks or emissions-free trucks, which I do not even think construction companies in Australia have, I do not see what any other solution there is.

**The CHAIR:** The Opposition's time has just expired, so how is that for perfect? Ms Boyd, over to you for questions from the crossbench.

**Ms ABIGAIL BOYD:** Thank you very much to our witnesses for appearing today and for your very considered submissions. I wanted to talk to you as people who have experienced the last however many years of WestConnex. Often with these projects, where we are told that a lot of the foreshadowed risks at least will be mitigated in some way, a series of conditions are placed on construction companies and the like. What has been

your experience with what was promised throughout the planning process, what the reality has been in terms of compliance by particularly those involved with construction, what your rights have been and how effective you have been to draw noncompliance to government attention?

**Mr PRAG:** I do not know if that was directed to anybody in particular, but I sit on the WestConnex Reference Group, which has now been disbanded, which all the community members are quite upset by, because it is our best opportunity to hold the Government and the contractors to account. There is not a meeting goes by where there are not broken promises raised, you know, be they informal or formal promises. I do not have a WestConnex example, but we have seen what happened with Parramatta Road. That was supposed to be bus lanes, but of course there was actually no date that they had to deliver by, so that can just gets kicked down the road. We were supposed to get active transport with WestConnex—between Iron Cove Bridge and the Anzac Bridge—but we have not seen any example of it. It is just greenwashing, I really believe. It is ticking boxes to get projects approved and then it is very easy to break those promises later down the line.

**Ms ABIGAIL BOYD:** Ms Brown?

**Ms BROWN:** I only have experience really from 2017-18, which was a while ago, so I cannot remember exactly what was talked about in those meetings. I do remember the one stack, the singular stack that they are building just before the Iron Cove Bridge in Rozelle. I am not sure how they are going with that actually, so I cannot speak to it too much, but I do recall a lot of meetings in 2017-18 with them saying, "Yes, a couple of houses will be gone, just a couple. Don't worry, your houses down on Callan Street, Springwood Street, they will be fine." They have been so incredibly disturbed and completely ripped out of the ground, I think more than anybody ever expected. They obviously sold that the impacts would be minimal and very well managed. I think everyone can see that the impacts have been felt by hundreds of residents, not just a few.

They did also talk about—when they were expanding that roadway as they were taking out houses on both sides of Victoria Road near Terry Street and also on Callan Street, Springwood Street and Toelle Street—that there would be a lovely bike ramp and it would be green and they would be building trees. I cannot see if they are going to do that yet, but it would be nice to see a lovely little garden island in the middle. I do not think we are going to see one. That is still to be seen. But I do know that they did say that the impact on taking out the houses will be quite minimal and of course no need to worry. But so many people I know have now gone from that area completely. And if they did not have their houses removed, they had to sell and leave because the damage was so terrible. So, no, they did not destroy your house physically, but they made it so unbearable to live there that you had to pack up and leave. That is what I have seen.

**Ms ABIGAIL BOYD:** Mr Kelly, do you have confidence in conditions being met by the Government?

**Mr KELLY:** My main concern, really, is money being thrown away on an irresponsible investment. When you look at the forecasts for the previous projects, it is hard to have any confidence in the traffic numbers, which are the key. That is the key component; that is the revenue for this project in the future. I question it as it stands and I throw COVID on top and say, "Well, could it be 20 per cent or 30 per cent less with COVID alone?" The answer in my mind is yes. So if the project is showing a 1.1 coefficient, it could easily lose 20 or 30 per cent and money is getting thrown down the drain. I just think that is quite irresponsible, and it is our money. So putting aside the environmental considerations, and there are very many—you know, the question was asked this morning, "Do you want a second harbour crossing?" You cannot really answer a question like that in isolation without a responsible investment analysis.

**Mr HOLLIDAY:** I would like to say something too.

**Ms ABIGAIL BOYD:** Sorry, Mr Holliday.

**Mr HOLLIDAY:** The fact is that you can solve a lot of these problems by putting in a railway line—just one line—in the under-harbour tunnel that will be built. Out of three lanes you would increase the people-carrying capacity by 4.6 times by replacing one traffic lane with a rail line. Of course, that would reduce the pollution and it would also mean that you would not be encouraging traffic in the Sydney Basin. That would reduce the pollution levels for the whole of Sydney.

**Ms ABIGAIL BOYD:** Mr Kelly, talking about the fact that everything has changed in terms of the impact of COVID—and we do not know how much of that will snap back to how it used to be and how much of it has changed forever. In addition to that, disrupting the basis on which a lot of the EIS was produced in terms of traffic flow—does it also have an impact in terms of numbers of people being at home being more impacted by construction compared to what it would have been a few years ago?

**Mr KELLY:** I think that is a fair comment. Just anecdotally, our suburban coffee shops are up 30 per cent since pre-COVID, so that is just an illustration of the amount of people who are around locally. I guess,

proportionately, that amount of additional stress—noise, again, is going to be a very big one as well because noise transmission over the water is a huge issue as well.

**Ms ABIGAIL BOYD:** So would it be fair to say then that the difficulties residents have experienced in the construction of WestConnex so far with noise and vibration and the stresses—and perhaps this is a question for you, Ms Brown. Would it be fair to say that when people, particularly if lockdown is continued, are forced to stay within their homes for more of the day that stress will be compounded?

**Ms BROWN:** Absolutely, 100 per cent. Yes, I cannot say anything except for 100 per cent. I have just had some local residents who have moved into the area—this was mid-last year, when we were definitely still in lockdown, around April-May 2020—and I definitely got a higher volume of people contacting me on the Facebook group saying that they could not sleep at night, that they had not slept for days and that you cannot leave your house, you cannot go to this proposed motel due to lockdown, so they were definitely very, very stressed. I felt very awful and responsible trying to explain to them, sadly, that we cannot do anything and that Fair Trading cannot do anything and that you could probably not negotiate that rent reduction that you want to negotiate.

I did also want to say real quick, just to what Robert Kelly was talking about, and Bill Holliday, that we were also very upset that the Government never even went ahead—talking about rail lines, they have never even considered trying to put in an alternative transport strategy. They never even considered what a public transport alternative could be for this area. It has never been taken seriously. They always went straight to WestConnex, straight to the western harbour tunnel and I think we have always found that very disappointing, especially when this thing is already so destructive to our health and to our environment and the fact that they never considered that and just said, "We will put in some trees in parks to make up for it." I always found that very disappointing too.

**Ms ABIGAIL BOYD:** I do not have much time left but I think with my last question—and perhaps it is to you, Mr Holliday, but if not let me know—I am interested in how Australia compares with other parts of the world when it comes to the filtering that we put on our tunnels.

**Mr HOLLIDAY:** I believe that in Japan they have in-tunnel filtration on several tunnels and I also believe that they have filtration in tunnels in Europe. I think the only test they have had of tunnel filtration has been on the M5. If you look at the evaluation report on that from 2008 by the Australian Marine and Offshore Group on the M5 East tunnel filtration trial, they basically only had the filtration running for six hours a day out of 24 and neither of the filtrations that they were doing—one was for PMs and total suspended particles or the NOx filter—none of them were set up properly so that they could work. The electrostatic filters for the particle matter did not work because all the particles clumped together and then broke off in a great lump periodically, so you still had these much larger particles going into the air stream. And the NOx filters were boxes full of activated charcoal, but the top of the box was empty. So the air that was supposed to be filtered just went straight over the top of the activated charcoal and not through it. There was virtually no absorption of the NOx, the nitrogen dioxide, at all. As a result the RMS, the Roads and Maritime Service, has pooh-poohed the idea of filtration ever since.

**The CHAIR:** Crossbench time has come to an end, so it is over to the Government.

**The Hon. SHAYNE MALLARD:** I have one minute left after our generous—

**The CHAIR:** You have time, Mr Mallard. You have nine minutes.

**The Hon. SHAYNE MALLARD:** I do not think I need nine minutes, but maybe Mr Franklin might take up some of that. I have asked this question and explored this issue earlier with other witnesses—and I preface it by saying I have recently been appointed Parliamentary Secretary for Infrastructure. I have been involved in active transport, public transport debate since the 1980s when I was just a young guy involved with the Greiner Government. Back then it was just building freeways. Now, this Government very much has a balanced approach. It probably has the most balanced approach in the history of the State.

I heard you saying, Ms Brown, that there has been no consideration of a rail crossing. There is actually right now being constructed under the harbour—almost below the location of this proposed tunnel—a rail tunnel for the revolutionary CBD Metro, which goes from Kellyville to Bankstown and will kick on later to Liverpool and the airport, probably. There are other transport initiatives that the State Government is doing, parallel to this road infrastructure, which is to unclog the economy as much as anything else. I would not mind just acknowledging that there is not just a singular view about transport from this Government. It is a balanced view with public transport—new ferries, light rail, metro rail, new trains. Would you acknowledge that?

**Mr HOLLIDAY:** I can probably speak to that, and that is that you have not put in the rail line that was part of the Bradfield concept up to the northern beaches. Also, the metro system you have brought in stops one station short of connecting to the heavy rail system at Schofields. It is only about three kilometres to go from the

last station at Tallawong through to the heavy rail line that goes up to Windsor and Richmond, and the Government has simply refused to connect it. That would make a big difference to the amount of traffic in the inner west because there must be a lot of people who have to drive to get to work in the morning simply because there is no connection between those two rail lines.

**The Hon. SHAYNE MALLARD:** I have not heard that before, but I am making the point though that—first of all, Bradfield, we have moved on. Now we are doing radial public transport connections, for example, from where I live, from the aerotropolis, from the airport, right through to St Marys and ultimately up to Kellyville with metro. We are now doing the rings around the city to make the city more connected together. There is a strategy there.

**Ms BROWN:** But I think we were more concerned about the fact that we never saw it considered specifically in the Bays Precinct with Rozelle. I do support the metro. I think there has been a lot of great public transport infrastructure brought through—I am not disagreeing with that at all; I have definitely seen that happen and it is great, but it is the fact that we were never given that alternative to consider, even after I remember years of asking, "Why can't we just have an investigation into what could be possible and why does this have to be the only option that we are given?" I think that was where we really felt trapped into a corner with WestConnex.

**The Hon. SHAYNE MALLARD:** There is certainly a strategy to put metro stations at the Bays Precinct, at the fish markets and further along on the western metro, which is now under development, which will help alleviate some of that issue as well. Mr Holliday, I think it was, was talking about the issue of financing, which I am interested in too. You cited two tunnels that did not meet the projections of car usage, was that right, the one in Brisbane and the cross city—

**Mr KELLY:** That was me, Robert Kelly.

**The Hon. SHAYNE MALLARD:** Mr Kelly, sorry. You have moved spots on my screen—sorry about that. Mr Kelly, I had a lot of involvement as a councillor on the City of Sydney with the Cross City Tunnel. Those figures—I will come to its relevancy in a second—were based on the portal at the museum and they were just extrapolated, not redone, before going out to Rushcutters Bay, when they changed it. That is where that failed. But the point is, the failure was not borne by the taxpayer. I mean, that tunnel was privatised. The private operator went down the drain. The only cost to taxpayers was the GST that they had not paid to Canberra and then it was taken up by another operator. The risk was all private sector and the loss was all private sector. I am not suggesting that the decision has been made on privatising this piece of infrastructure, but I am just pointing out that the risk on the investment is taken by the private sector, and certainly that was the case with the Cross City Tunnel. You are saying that the taxpayer is taking a huge risk, that the projections are all wrong and that we will lose a lot of money, but I am putting it to you that the private sector will make that assessment in due course if we go down the path of privatisation.

**Mr KELLY:** The private sector can generally assess projects sensibly and therefore the Government will either end up having to provide a guarantee of traffic numbers, of which there will be a shortfall, and the investor will have a government bond or something. The private sector is not going to stumble into a loss-making project and make a loss with its eyes open, in my experience.

**The Hon. SHAYNE MALLARD:** I agree with that, but there has not been an appetite to take up the—

**The CHAIR:** I think Mr Prag is trying to get the call, so we might go to Mr Prag.

**Mr PRAG:** I am here really just to represent the school, but when you talk about the private sector, if that was genuinely the way it worked and the private sector just took the risk—and let's take away the fact that Transurban do not pay their taxes in Australia or whatever anyway, so let's take that out of the equation—that would be fine if that was 100 per cent true. I do not know what the plans are with the western harbour tunnel, but with WestConnex—I can't remember if it was stage two or stage three, or possibly both—my understanding is that the Government had to write in a guarantee that if traffic numbers fell so low they would then basically pay them what they were losing in revenue. You are not taking risk out of the equation because everybody knows that people do not want to use toll roads and the numbers never stack up; they never get the numbers that they are supposed to. Absolutely, if it was the same deal as the Cross City Tunnel and the Lane Cove Tunnel for the western harbour tunnel and WestConnex, I probably would not have as much of a problem in terms of finances, but it is not. Basically you are giving the private companies this sweet deal where they do not pay taxes and you are taking all their risk away. And who is going to pay for it? The taxpayer. It is just crazy.

**The Hon. SHAYNE MALLARD:** I think we will agree to disagree on that one, but I just wanted to make that observation. I mean, the Cross City Tunnel is often cited as an example. In fact, the taxpayer did not lose any money—a little bit of GST to Canberra on that one. I have got a lot of detail on that. Mr Franklin, would you like to ask some questions, my colleague from Byron Bay?

**The Hon. BEN FRANKLIN:** I only had one question actually, and that was to Mr Kelly. I noticed in your submission that you talked about the importance of dealing with contamination, particularly in construction support sites such as Berrys Bay, which I totally agree with and think that that is a critical issue. But that just made me think about the legacy project, which is potentially mooted for Berrys Bay. I was just interested in your views about that, about what has been suggested so far and what ideas you might have in your expertise about what can be best done for that facility once the project is finished.

**Mr KELLY:** [Inaudible].

**The Hon. BEN FRANKLIN:** You are just on mute, Mr Kelly.

**Mr KELLY:** Sorry. Look, I am not across the detail of the legacy project on Berrys Bay. Similar to Bill Ryall today, we tend to concentrate on the route across the harbour, which we are familiar with and close to. Are you referring to reinstatement of the—

**The Hon. BEN FRANKLIN:** Just returning it to being public open space and a whole range of the different possibilities being able to be used there, whether it be having a plaza or public access to the beach, launching kayaks, a shared-use path, native tree planting—all of that sort of thing—which has been mooted, which to me seems like a wonderful idea. But I just wanted the views from the community, and we would be interested in the views of other witnesses if they would like to make any comments about that. Or not. That is fine too.

**The CHAIR:** Mr Franklin, time has expired. We thank the witnesses for joining us this afternoon. I understand that you have taken some questions on notice. You will have 21 days to return an answer after the receipt from the secretariat. That brings the public hearing to a close. We thank all the witnesses who appeared today. This panel is excused.

**(The witnesses withdrew.)**

**The Committee adjourned at 13:28.**