

IN THE HIGH COURT OF NEW ZEALAND
AUCKLAND REGISTRY

CIV-2021-404-1618

I TE KŌTI MATUA O AOTEAROA
TĀMAKI MAKĀURAU ROHE

UNDER the Judicial Review Procedure Act 2016

IN THE MATTER OF an application for judicial review

BETWEEN **ALL ABOARD AOTEAROA
INCORPORATED**
Applicant

AND **AUCKLAND TRANSPORT**
First respondent

AND **THE REGIONAL TRANSPORT
COMMITTEE FOR AUCKLAND**
Second respondent

Cont.

AFFIDAVIT OF JAYNE LOUISE METCALFE IN REPLY

23 March 2022

Assigned judicial officer:

Next event date: Hearing on 26-28 April 2022

JACK CUNDY BARRISTER & SOLICITOR

Counsel
Davey Salmon QC
Mills Lane Chambers
davey.salmon@millslane.co.nz
+ 64 9 977 7902

Solicitor
Jack Cundy
PO Box 1077 Shortland Street, Auckland 1140
jack@jackcundy.co.nz
+64 972 93130

201.0192

AND

AUCKLAND COUNCIL
Third respondent

1. **AFFIDAVIT OF JAYNE LOUISE METCALFE IN REPLY**

I, Jayne Louise Metcalfe, of Auckland, engineer, swear –

1. This is the second affidavit I have made on behalf of the applicant in this proceeding. I make it in reply to the affidavit of Hamish Bunn filed on behalf of the respondents.
2. I confirm that I have read and complied with the Code of Conduct for Expert Witnesses in preparing this affidavit.
3. I have read Mr Bunn’s affidavit. Although he does not respond directly to my first affidavit, he gives evidence on a number of issues that are addressed in that affidavit, and that are within my knowledge and expertise. I provide a brief response to Mr Bunn’s evidence on those matters below.
4. I note at the outset that nothing raised by Mr Bunn causes me to change any of the views I expressed in my first affidavit.

The impact of infrastructure investment

5. Mr Bunn goes to some length to defend the assertion in Auckland Transport’s Section 14 Analysis that: “Fundamentally, investment in infrastructure or services only has a very minor impact on total emissions, whether positive or negative”. [[[309.4183]]]
6. At paragraphs 189-198 he discusses modelling results from Hikina te Kohupara (the Ministry of Transport’s green paper on emissions reductions). At paragraph 193 he presents figures from Hikina te Kohupara that “enable one to indicatively identify the contribution of land use and public transport interventions”. He states (at paragraph 194) that “[t]he Land Use and Public Transport intervention, which is the intervention most analogous to the RLTP, is expected to reduce emissions between 0.7% and 4.2% compared with the reference case”. [[201.0323]]
[[201.0324]]
7. Mr Bunn has ignored that for the purposes of modelling, many of the identified interventions within each theme are not even modelled – as shown in the appendices to Hikina te Kohupara. Modelling is essentially a mathematical simplification of a complex system. The results need to be seen as indicative, not as a precise data set to determine the relative merit of interventions within each theme.
8. Mr Bunn also states (at paragraph 196) that the modelling results from Hikina te Kohupara “demonstrate that infrastructure investment to achieve mode shift is also expected to have a small impact on overall emissions”. This analysis is simplistic and ignores the interdependency of measures to achieve mode shift. [[201.0325]]

9. As shown in the table at paragraph 193 of Mr Bunn’s affidavit, if we look at the contribution of different interventions separately, pricing has a much bigger impact on emissions reduction compared with land use and public transport. However, as noted in my first affidavit (at paragraph 31), policies which substantially increase the cost of private vehicle travel (thus significantly reducing vehicle travel) are simply not tenable unless there are good alternatives available. And we cannot provide good (safe, efficient, reliable, affordable and convenient) alternatives without good infrastructure. [[201.0324]]
[[201.0182]]

10. I reiterate the following statement from the Waka Kotahi Keeping Cities Moving Plan (emphasis added): “giving people safe, efficient, reliable, affordable and convenient travel choices is an **essential pre-requisite** to achieving mode shift and reducing car dependency”.

Roading projects

11. Mr Bunn discusses the impact of specific road projects on emissions at paragraphs 232-243. [[201.0338]]
12. His analysis seems to rely primarily on the relationship between vehicle speed and CO₂ emissions (paragraph 237). This relationship has been quoted by traffic engineers to help to justify road expansions for decades. Road expansions have, however, failed to deliver emissions reductions due to the real world effects of induced traffic being consistently underestimated by models. [[201.0340]]
13. Experience has shown that adding road capacity is not a way to reduce either congestion or emissions. This is very widely accepted and is reflected throughout strategy and policy documents from transport agencies, including Auckland Transport itself. By way of example, Hikina te Kohupara states that our high per capita transport emissions are a result of several factors, including the following: “Decades of private vehicle oriented transport planning and funding have encouraged car use over alternatives. For example building extra lanes to solve traffic problems rather than changing how we travel.” [[306.2490]]
14. I note also that Mr Bunn focuses solely on tailpipe emissions. He does not respond to the evidence in my first affidavit (paragraphs 24-27) about the failure to take account of lifecycle emissions, including embodied and operational emissions from construction, maintenance, and operation of roads and car parks. [[201.0269]]
15. In my view, Mr Bunn’s analysis also misses another key point, being that the money invested in these projects would be more effectively invested elsewhere.

Reallocation of road space and its effects

16. Mr Bunn discusses reallocation of road space at paragraphs 253-294. His analysis focuses on lane removal as opposed to reallocation of road space to alternative modes. [[201.0345]]

17. Mr Bunn claims that Auckland Transport's Section 14 Analysis was referring to lane removal. The full text of the relevant paragraph is as follows:

General road space reallocation towards cycling and other sustainable modes has also been proposed by submitters as a way of addressing climate issues. This is already occurring as part of the wider cycling programme and projects such as Connected Communities that will provide for bus lanes, bus priority and cycling and safety improvements. As noted, there is no available funding for further reallocation. In practice, it is also likely that gains from deterring car travel through lane reallocation alone would be largely offset by the increase in emissions associated with increased congestion and diversion amongst the remaining traffic. Reallocation of general traffic lanes without additional effective alternatives (which cannot be funded) would also materially reduce the RLTP's contribution to LTMA objectives around effectiveness and economic, social and cultural public interests.

[[309.4183]]

18. This paragraph is responding to a proposal by submitters to reallocate road space to alternative modes. In that context, I think it is reasonable to assume that the following statement relates to reallocation of road space (to alternative modes) as opposed to lane removal: "it is also likely that gains from deterring car travel through lane reallocation alone would be largely offset by the increase in emissions associated with increased congestion and diversion amongst the remaining traffic".

19. Overall, I consider that Mr Bunn's analysis of the effects of lane removal without providing alternatives (from paragraphs 253-294) to be beside the point. The whole point of road space reallocation is to provide space for alternative modes (which would reduce vehicle kilometres travelled).

[[201.0345]]

Mr Bunn's conclusion

20. Mr Bunn concludes (at paragraph 347) that the options for achieving transport emissions reduction goals fall into two broad categories, which he describes as follows:

[[201.0343]]

- (a) "Rapid change, which will require implementation of comprehensive and high price distance-based pricing schemes – supported by recycling the revenue into public transport and cycling capacity. There is no other intervention that achieves the necessary scale of change. This will, however, have a substantial negative impact on economic, social and cultural wellbeing - particularly from an equity point of view"; and
- (b) "Less disruptive change, which can be achieved primarily through a much greater emphasis on shifting to low emissions vehicles - supported by continued priority investment in better transport choices. This will, however, take longer to achieve substantial emissions reductions."

21. Mr Bunn appears to believe the choice is between a pathway that will impact negatively on wellbeing, or a pathway that will fail to meet the emissions goals in the timeframe required. This dichotomy is false. It is recognised and accepted throughout the transport sector, both in New Zealand and

internationally, that there are many interventions that can meet both wellbeing and climate objectives.

- 22. The Government and Auckland Council have each declared a climate emergency. Rapid and urgent change across the transport system is required. Better transport choices are a prerequisite to ensure that change does not cause negative impacts on economic, social and cultural wellbeing.

SWORN at Auckland this 23 day of March 2022 before me:

PRAMOD NARSINH PATEL

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[Handwritten signature: Pramod]

Pramod N. Patel, JP
#12102
AUCKLAND

Jayne Louise Metcalfe

Justice of the Peace for New Zealand

~~A solicitor of the High Court of New Zealand~~

[Handwritten signature] Justice of the Peace New Zealand

P.P.



C. A. B. Mt. Eden - Mt. Albert