CYCLING ACTION NETWORK
PAI TE HAERE PAHIKARA
can.org.nz

Cycle Advocates Network (CAN) is the national umbrella organisation for all cyclists with an emphasis on advocating for everyday utility and commuting cycling, as well as cycle tourism. The vision of CAN is "more people on bikes more often"

Bike Auckland
bikeauckland.org.nz

Bike Auckland work for a better city for people on bikes.

Joint submission on draft GPS 2018

Bike Auckland and CAN welcome the opportunity to make a submission on the draft Government Policy Statement 2018 and submit the following-

1. We commend the positive measures in the Statement:

1.1. Allocation of funding to support ongoing cycleway investment through raised upper levels allocated to walking & cycling activity class;

1.2. acknowledgement in section 1 of the rapid recent increases in cycling and public transport patronage;

1.3. the Ministry's recognition that perception of safety is a barrier to cycling uptake.

2. However it is clear that economic growth will not be served as claimed by the Statement:

2.1. Allocating 77% of the Fund to road improvements and maintenance will greatly facilitate motor car use. We recognise that motor car use is an integral part of Kiwi life and that private car use is indispensable for many journey types, but available evidence clearly shows that over-dependence on a **single transport mode** will poorly serve long-term economic growth, particularly in the larger cities.

2.2. Excessive road construction has been shown to **induce** additional traffic, in turn potentially worsening congestion [1, 1, 2]. This additional congestion, combined with inhibited transport

[1] Cervero 2009

[2] Dominion Post, 2017- March 29th 'New Highway Doubles Congestion'.

resilience and other factors, has been shown to contribute to increased societal/ taxpayer costs[3].

2.3. The NZTA summarise the issue[4], 'Simply adding more lanes and more kilometres of road is not a sustainable solution to those [urban transport] challenges'. Greater investment in public and active transport is necessary to protect economic growth from the restrictions of congestion and transport delays.

2.4. 2009 research showed that using a bicycle for a journey results in a net profit for society of €0.49. Taking a car resulted in the study in a net loss to society of €0.89[5].

2.5. Combining **public transport** systematically with cycling can exponentially increase the catchment of bus and train hubs, creating a virtuous cycle of higher demand and more frequent services[6]. Public transport has suffered chronic under-investment in the past decade. Allocating approximately 10% of the NLTF to public transport effectively means that (typical operational demands for most public transport systems being in the order of 90%) a mere 1% is allocated to new infrastructural investment. This exacerbates NZ's reliance on one transport mode, locking urban areas into congestion and compromising resilience.

2.6. **Cycle tourism** is a significant contributor to economic growth and job creation. Nga Haerenga (The NZ Cycle Trail network) has been criticised[7] for suffering poor infrastructure between rides (e.g. state highways hostile to cycling). There is a need to provide comfortable cycle routes in the highway network to protect the investment and overseas reputation of this tourism offering. Maintenance of trails also requires ongoing resourcing; it is estimated that each kilometre of cycle trail requires $1,000 p.a. in maintenance funding[8], depending on accessibility, gradient, substrate etc. This is a further economic argument for transferring substantial funds from roading activity classes to the walking and cycling class.

2.7. The Statement appears to employ the extreme-case 'Travellers' Paradise' scenario from Ministry's own **Future Demand** studies. In contrast to the Statement's assumptions that VKT will continue to rise (p. 4) these studies note that 'significant decline' in VKT is considered plausible and conclude, 'There is a responsibility to shape our transport system to support New Zealand's future. 'Predict and provide' should become 'decide and provide'.

3. Value for money may not be well served by the Statement as drafted:

3.1. Investment in roads tends to facilitate and encourage motor car use[9]. This does not serve the Statement's stated objective of value for money. Cycling has been clearly shown to offer **better value** for money both in capital and maintenance terms. More must be done to shift short (<5km) trips from car to bicycle.

3.2. Benefit/cost analysis of cycling infrastructure investment has shown excellent returns:

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[3] Litman, 2015: Generated Traffic and Induced Travel

[4] 2015-18 NLTP Highlights

[5] COWI, 2009 Socio-economic analyses of bicycle initiatives

[6] Tom Williams/ Jacobs study presented at IPENZ TG Conference, 2017- March 30th

[7] https://awanderingphoto.com/2017/03/04/rethinking-new-zealand-cramped-and-crowded-and-not-for-cycle-touring/

[8] Evan Freshwater (NZCT), conference presentation, CAN-Do, March 2017

[9] Litman, 2015: Generated Traffic and Induced Travel

3.2.1. Auckland research shows that $1 spent on cycling infrastructure saves **$6 to $20** in other areas, with the largest saving coming from reductions in health costs and early mortality because of more physical activity[10].

3.2.2. 2010 research at the University of Auckland found that shifting just 5% of vehicle kilometres to cycling would reduce vehicle travel by approximately **223 million km** each year, save about **22 million litres** of fuel and reduce transport-related greenhouse emissions by **0.4%**. The health effects would include about **116 deaths** avoided annually as a result of increased physical activity, **six** fewer deaths due to local air pollution from vehicle emissions, and an additional **five** cyclist fatalities from road crashes. In economic terms, including only fatalities and using the NZ Ministry of Transport Value of a Statistical Life, the health effects of a 5% shift represent net savings of about **$200 million** per year[11].

3.2.3. More recent model projections by the School of Population Health, University of Auckland et al. suggest that transforming urban roads over the next 40 years, using best practice physical separation on main roads and bicycle-friendly speed reduction on local streets, would yield **benefits 10–25 times greater than costs**.[12].

3.2.4. 2014 research found a benefit-cost ratio of around **7 to 1** to be calculable on the then-proposed network for Christchurch[13]. Notably 28% of these benefits are for 'decongestion' i.e. benefits to people still driving. This results from shifting of others from car use to the more space-efficient bike mode.

3.3. The admission (p. 8) that cost-benefit analysis for major projects may be set aside if the projects align closely with Government policy is a particularly stark admission that the objective of value for money is not well served by the current draft of the Statement.

4. Cycling is growing and set to become a far more important part of our transport system:

4.1. Approximately 74% of NZ commuting trips are done by car. 49% of these are journeys of less than 5km[14].

4.2. Numbers of people cycling once a week or more in Auckland grew by over 100% between 2014 and 2016[15].

4.3. 76% percent of Wellington adults say they would consider cycling for recreation, errands or commuting if safe, separated infrastructure was provided[16].

4.4. 60% of Aucklanders say they would cycle if separated cycle facilities were installed (and almost one in four own a bike already)[15].

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[10] Chieng, Lai, Woodward *Journal of Transport and Health* March 2017 http://www.sciencedirect.com/science/article/pii/S2214140516303656

[11] Moving urban trips from cars to bicycles: impact on health and emissions; Graeme Lindsay, Alexandra Macmillan, Alistair Woodward, School of Population Health, University of Auckland, New Zealand; http://onlinelibrary.wiley.com/doi/10.1111/j.1753-6405.2010.00621.x/pdf

[12] Macmillan A, Connor J, Witten K, Kearns R, Rees D, Woodward A. 2014. The societal costs and benefits of commuter bicycling: simulating the effects of specific policies using system dynamics modeling [sic]. Environ Health Perspect 122:335–344; http://dx.doi.org/10.1289/ehp.1307250

[13] Paul Roberts, Cycle Demand: Planning for Tomorrow, 2014. Roading projects typically between 1 and 2.

[14] NZ Statistics 2013

[15] Auckland Transport/ TRA figures

[16] Pettit, T. and Dodge, N. 2014 Cycling Demand Analysis

4.5. Cycling on Nelson Street in Auckland has seen a 1000% increase in cyclists in three years[17].

4.6. There has been vigorous growth in sales of electric bikes[18] which break down barriers to bicycle use such as sprawling development causing longer journeys and steep hills. This will result in more bicycle trips being made, and a wider section of the population using bicycles for transport.

4.7. Other evidence showing current and projected growth in cycling is set out in NZTA's 'Benefits of Investing in Cycling' document[19].

4.8. Ambitious targets to increase cycling uptake are therefore strongly advisable for any functional transport policy and in the Statement. CAN and Bike Auckland suggest that the ambition of the NZTA to increase cycling by 10 million trips[20] be specifically included in the Statement, but as set out below we would consider this as a starting point only in the longer term.

5. The Statement sets low targets for cycling compared to NZ's overseas competitor economies:

5.1. In 2019/20, a typical year's allocation, 1.54% of the Fund is provided for walking and cycling; $65 million. This is compared to $3,255 million for road improvements and maintenance (some of which will admittedly be for use by cyclists). This level of investment is far behind progressive OECD countries with whom New Zealand is in competition for talented knowledge-economy workers.

5.2. The Netherlands sets aside €487m per annum purely for cycling development while the cycling budget of Groningen city alone is €85 per person per annum, despite that city already having one of the highest cycling modal shares in the world[21]. Transferring an insignificant 1.99% of roading funds would double the cycling and walking allocation and bring New Zealand into the top tier of international competitors.

5.3. Crown provided $100m for the Urban Cycleways Programme; it is not known whether this programme is to be repeated but given the risks inherent in ending up with a partly-completed cycleway system and given the other arguments for continued cycleway investment, the Programme fund should be confirmed by the Crown and added to the cycling & walking allocation.

5.4. While the NZTA's ambition to add 10 million annual cycling trips by 2019 offers a clear and achievable goal, this —assuming very roughly a cycling-fit population of 3.3 million— would equate to only three additional trips per person in an entire year. In Auckland alone, 45,600 additional people cycled in 2016 than in 2015[22]; the yearly NZTA target would be achieved if each of these commuted by bike only twice a week. Suitably ambitious targets might include—

5.4.1. The United Nations goal of allocating 20% of all transport spending[23] to walking and cycling, or

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[17] Michael Jongneel/ FLOW Transportation Specialist, paper to IPENZ TG Conference March 2017

[18] NZTA research ongoing; approximately 14,000 bikes sold in 2016 compared to approximately 2,000 in 2015.

[19] https://www.nzta.govt.nz/walking-cycling-and-public-transport/cycling/benefits-of-investing-in-cycling/

[20] NZTA

[21] http://groningenfietsstad.nl/friksbeheer/wp-content/uploads/2016/05/Groningen_CycleCity_Strategy_2015-2025.pdf

[22] Auckland Transport/ TRA figures, 2016

[23] UNEP- Global outlook on Walking and Cycling, 2016

5.4.2. a goal of 5% of all commuting trips (currently 8% in some districts[24] and 49% of NZ's commuting trips are less than 5km[25]) to be by bike by 2025, or

5.4.3. 6% of all kids' trips to school by bike by December 2020.

5.5. Other transport, health and economic arguments in favour of cycling are set out in NZTA's 'Benefits of Investing in Cycling' document.

6. Lower limits of allocations to walking and cycling endanger hard-won progress on growing cycling numbers:

6.1. Governments' substantial financial and political investment in the cycling infrastructure (almost $400m on Urban Cycleway projects) needs to be fulfilled by uptake in cycling numbers using the facilities, and it is conceivable that any loss of momentum in that uptake could jeopardise the reputation of the investment decisions made:

6.2. With the UCP programme nearing completion, cycle networks in many urban areas have been greatly improved, but are in many cases still disjointed, often missing short links between facilities or between facilities and destinations in, say, CBDs. Disconnected networks will not attract the majority 'interested but concerned' potential cycling cohort[26] and the facilities will not be popular. Thus reputational risk is an issue, and continued investment must be secured.

6.3. The NZTA confirm that spreading investment across modes is good policy. The Agency's 'NLTP Highlights' summary document states, 'As a country, our travel habits place increasing pressure on our existing road network, especially in our cities. Simply adding more lanes and more kilometres of road is not a sustainable solution to those challenges. The Transport Agency needs to look at a much broader set of options and invest in and encourage smarter transport choices.'

6.4. Bike Auckland and CAN commend the substantial work done by the NZTA with the aim of facilitating more and safer cycling and we acknowledge Ministry's support of this work. The intelligent and diligent work of the current Cycling Team, involving not only infrastructure but regulations, behaviour change and training, will undoubtedly yield environmental, health, and congestion-easing benefits for many kiwis. However with cycling numbers still low, strong Ministry support for its continuation is vital.

6.5. As these lower limits are substantially less than 50% of the upper limits we feel they should be doubled to avert the above risks and continue making progress.

7. The Policy has effects on health and healthcare expenditure

7.1. Transport policy affects many aspects of life and lifestyles and cannot be determined in a vacuum. Physical inactivity contributes to a rapidly-growing taxpayer burden of non-communicable diseases such as diabetes, cardio-vascular disease and some cancers[27, 28]. Encouragement of active travel including cycling, walking and public transport is known to increase public health outcomes and reduce healthcare expenditure by reducing obesity and overweight[29]. Integrating exercise into daily routines (as distinct from taking exercise

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[24] 2009-12 Household Travel Surveys

[25] Statistics NZ

[26] ViaStrada Planning and Design for Cycling curriculum

[27] Bidwell/ CDHP, 2012

[28] American Diabetes Association, 2014 www.sciencedaily.com/releases/2014/06/140617130824.htm

[29] Bidwell/ CDHP, 2012

deliberately) is effective in improving public health. But the Statement as drafted subsidises sedentary motor car use by allocating 77% of the entire Fund to road improvements and maintenance. A discussion of health effects may appear at first to be out of scope of the Statement, but setting transport policy in the absence of considerations of external effects on the economy or public health does not serve the objective of economic growth in the long or even medium term.

8. The Policy's effects on land use are not examined

8.1. Transport systems' effects on **land use** are not considered in depth in the Statement. Land use patterns that are too heavily dependent on private car use are being shown in an increasingly large body of evidence to under-perform economically and contribute to poor social and health outcomes for residents and occupants[30] [31, 32, 33]. Investing 77% of the fund into road-based transport will inevitably encourage car-dependent development patterns.

9. To allow cycling to grow, road-based freight traffic must be managed:

9.1. Cyclists are dis-incentivised by the presence of road-based freight vehicles[34] and outcomes for collisions between these modes are predictably severe[35]. Both of these factors suppress uptake of cycling. The Statement accepts industry growth extrapolations for freight use of roads without setting targets for transfer of freight tasks where appropriate to other modes. KiwiRail[36] and the NZ Shipping Federation[37] have separately called[38] for transfer of bulk, non-JIT freighting to their sectors but the Statement fails to examine the feasibility of such transfers and arguably works against them by allocating immense subsidies to road infrastructure and maintenance.

10. Road safety:

10.1. The well documented 'Safety in numbers[39, 40, 41]' effect of a critical mass of cyclists on roads has not been considered in the Statement as drafted. More cyclists on the roads make roads safer for everyone. By reducing the social and taxpayer burden of road collisions, the Safety in Numbers effect compounds the economic value of investing in cycling and strengthens arguments for transferring a considerable proportion of investment funding from roads to cycling.

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[30] TRB (2005) Does the built environment influence physical activity? Examining the evidence

[31] Frank, Schmid et al., http://www.sciencedirect.com/science/article/pii/S0749379704003253

[32] Andersen, L. B., Wedderkopp, N., Kristensen, P. L., Moller, N. C., Froberg, K. and Cooper, A. (2011). Cycling to School and Cardiovascular Risk Factors: A Longitudinal Study. Journal of Physical Activity and Health, 8, 1025-33.

[33] Barton, H. (2009). Land use planning and health and well-being. Land Use Policy 26S S115–S123.

[34] Nelson City Council research 2014 (author)

[35] CAS database

[36] Peter Reidy, KiwiRail CEO- http://www.stuff.co.nz/dominion-post/comment/70978250/why-railways-are-valuable-to-new-zealand

[37] NZSF 'Full Steam Ahead' 2016

[38] http://nzsf.org.nz/news/Levy-2015 'Government yet again underfunds maritime sector'

[39] Jacobsen, 2003

[40] NZTA, Walking and Cycling Model Community Story with New Plymouth & Hastings, 2013

[41] Marqués; Hernandez-Herrador, On the effect of networks of cycle-tracks on the risk of cycling. http://dx.doi.org/10.1016/j.aap.2017.03.004

Conclusion:

The Statement's principal goals are economic growth and value for money. The evidence clearly indicates that tens of millions of dollars applied to cycling will contribute to these goals as effectively as hundreds of millions of dollars applied to roading projects.

Bike Auckland and CAN are committed to seeing more New Zealanders of all ages riding bikes for everyday transport, and we raise the above concerns with the goal of helping government to embrace cycling's potential as a powerful engine to the ongoing health, economic growth, and prosperity of all New Zealanders.

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