TE WAIORA Nelson Marlborough Health

Waka Kotahi NZ Transport Agency: Nelson Future Access Project

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For more information please contact:
Jane Murray
NMDHB Public Health Service
Email: jane.murray@nmdhb.govt.nz
Phone: (03) 543 7805

Submitter details

1. Nelson Marlborough Health (Nelson Marlborough District Health Board) (NMH) is a key organisation involved in the health and wellbeing of the people within Te Tau Ihu o Te Waka a Maui. NMH welcomes the opportunity to comment from a public health perspective on the Waka Kotahi NZ Transport Agency's Nelson Future Access Project.

2. NMH makes this submission in recognition of its responsibilities to improve, promote and protect the health of people and communities under the New Zealand Public Health and Disability Act 2000 and the Health Act 1956.

3. This submission sets out particular matters of interest and concern to NMH, particularly in relation to promoting active transport modes and prioritising safety for all modes of transport.

General Comments

4. NMH previously completed a significant amount of work in relation to the health issues associated with arterial road options in Nelson, and in December 2010 produced a Health Impact Assessment (HIA)[1] on the roading options under consideration at that time. This was part of the Nelson Arterial Road Study. That HIA is relevant to the current investigation as it looked at the health impacts of proposals similar to Priority Lanes Package, Coastal Corridor Widening Package, and Inland Route Package.

5. All of the options identified in the current investigation have potential health impacts. It is important that these are considered in determining the best option for the community.

6. NMH commends Waka Kotahi for the introduction of short-term package that aims to improve safety and accessibility for people using active modes (including public transport). There are numerous benefits in promoting active transport. Increased numbers of walkers and cyclists can stimulate economic activity, promote accessibility and community cohesion, reduce congestion, improve safety, reduce transport emissions and improve public health.

7. NMH supports initiatives that make streets safer and more inviting places for people. Creating places that are attractive and safe for people to use means that more people will walk and cycle in the area which will decrease car dependency.

[1] http://www.nelson.govt.nz/assets/Our-council/Downloads/Plans-strategies-policies/ATS-health-impact-assessment-stage-3.pdf

This is both good for mental and physical health and has environmental benefits. In addition, local area traffic calming measures will reduce the number of accidents on the roads.

8. NMH supports the marketing and promotion of school travel planning. Walking and cycling rates have declined considerably for school trips since 1989.[2]. For children, using active transport to and from school is an important way to get some physical activity each day. With the high child obesity rate in New Zealand, this is a relatively easy way to increase physical activity in children. Moreover there are well established cognitive and learning benefits to walking and cycling to school.[3,4] Research has also shown that most children that walk and cycle to school will maintain this behaviour as they get older, therefore it is important to establish early habits for active commute.[5]

9. There are at least fourteen schools (including early childhood centres, play-centres) that are within the Project Area that will be directly affected, to a lesser or larger extent. Research has shown that "schools will only embrace strong and consistent support for active school travel if school leadership teams, teachers, and parents are confident that it is safe to *promote* active travel to school, because it *is* safe"[6]. Therefore it is vitally important that the transport infrastructure surrounding schools ensures that children are able to walk and bike to school safely.

10. Over the past 40 years, transport budgets have focused predominately on improving the road carriageway rather than pedestrian and cycling facilities, it is only within the last decade that substantial investment has occurred for cycling facilities. Cycling has increased in areas with improved cycle infrastructure. Recent rapid technology change has resulted in the advent of a raft of micro-mobility options and now there is a broader range of users wishing to use footpaths and cycleways. Conflict has arisen between different users. NMH continually advocates for the prioritisation of safety for all modes and that further investment is given to

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[2] https://www.transport.govt.nz/assets/Import/Documents/RaisingtheProfileWalkingCyclinginNZ.pdf

[3] Hillman, C. (2009)*The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children* Neuroscience Volume 159, Issue 3,

[4] South Australian Department of Planning, Transport and Infrastructure (2016) *Walking, riding or driving to school: what influences parents' decision making?* https://www.dpti.sa.gov.au/__data/assets/pdf_file/0020/513506/Walking_riding_or_driving_to_school-_what_influences_parents_decision_making-_Focus_group_discussion_report.pdf

[5] Centre for Physical Activity and Nutrition Research(n.d) *What Influences whether children walk or cycle to school.* Deakin University

[6] Ibid.

encouraging active modes to enable to people to enjoy the physical and mental health benefits of these activities.

11. NMH notes that the basic elements of the short term package are to encourage more people to walk and cycle, to improve public transport and give priority to buses, to use traffic calming and speed management to make neighbourhoods vibrant, and to promote different ways to travel to work and school. NMH highly recommends that these basic elements are also applied to long term transport packages as well.

12. NMH supports the upgraded Rocks Road walking and cycling facility including a new seawall to address sea-level rise. The current facilities are very narrow for cyclists and for pedestrians. The proximity of heavy vehicles to vulnerable road users means that the route in its current form is unsafe.

Specific Comments

Question 1: Which long term transport package is likely to be the most successful in enabling the vision for Nelson of "Nelson is the Smart Little City"?

13. *Priority Lanes Package*: This aim of this package aims to improve active and public transport options as well as reduce the number of single-occupant vehicles, which will reduce congestion, air pollution and noise issues. Therefore from a public health perspective, this option is preferred and will enable the vision for Nelson being a Smart Little City. It is noted in our HIA[7] that this option may have minor negative effects[8] in relation to community severance, safety, noise and air quality, these are all able to be mitigated whereas the Inland Route Option and Coastal Widening Option have been shown to have greater negative impacts on health.

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[8] http://www.nelson.govt.nz/assets/Our-council/Downloads/Plans-strategies-policies/ATS-health-impact-assessment-stage-3.pdf pg 42

3.1 SUMMARY OF IMPACTS

Where squares have been left blank there is a neutral or no impact.

-	minor negative impact
--	moderate negative impact
---	major negative impact
+	minor positive impact
++	moderate positive impact
+++	major positive impact

	Option A: Part time Clearways	Option B: Southern Arterial	Option H: SH6 Four Laning	C W F F
Community Severance	-	-- (Victory Area)	---	-
Safety	-	+ (Waimea/ Tahuna) - (Victory Area)	-	-
Economic Impact	- Rates	- Rates + Development	-- Rates - Development	-
Noise	-	--	-	-
Physical Activity	- Transport	- Recreation (Victory Area)		
Access to Health Services	-		--	-
Air Quality	-	--	-	-

Summary of Impacts show in the Health Impact Assessment[9]

Environmental noise causes significant public health harm, and road-traffic is the most prevalent and widespread source of environmental noise. There is a large body of international research demonstrating the harm caused by road-traffic noise, as set out by the World Health Organisation Regional Office for Europe in the 2018 Environmental Noise Guidelines for the European Region[10]. Based on the quality of the evidence, the WHO Guideline Development Group (GDG) made three strong recommendations with respect to road-traffic noise:

- For average noise exposure, the GDG strongly recommends reducing noise levels produced by road traffic below 53 decibels (dB) Lden, as road traffic noise above this level is associated with adverse health effects.

[9] http://www.nelson.govt.nz/assets/Our-council/Downloads/Plans-strategies-policies/ATS-health-impact-assessment-stage-3.pdf pg 42

[10] https://www.euro.who.int/en/health-topics/environment-and-health/noise/publications/2018/environmental-noise-guidelines-for-the-european-region-2018

- For night noise exposure, the GDG strongly recommends reducing noise levels produced by road traffic during night time below 45 dB Lnight, as night-time road traffic noise above this level is associated with adverse effects on sleep.
- To reduce health effects, the GDG strongly recommends that policy-makers implement suitable measures to reduce noise exposure from road traffic in the population exposed to levels above the guideline values for average and night noise exposure. For specific interventions, the GDG recommends reducing noise both at the source and on the route between the source and the affected population by changes in infrastructure.

As is the case worldwide, acoustics modelling of major roads in New Zealand shows that hundreds of thousands of people are currently exposed to road-traffic noise exceeding the recommendations set out by the WHO. This includes tens of thousands of people in the Nelson region.[11] In this context, decisions on future access in Nelson are inextricably linked to public health harm caused by environmental noise.

The documentation for the Nelson Future Access Project[12] does not appear to address the existing harm from road-traffic noise in the region:

- The 2017 Programme Business Case has four investment objectives but none of them seek to reduce existing harm to public health from road-traffic noise.
- The September 2019 update for the Detailed Business Case sets out three problem statements, but none of these include the existing harm from road-traffic noise as a problem. Problem statement 1 makes reference to "social wellbeing" but it appears to have been considered primarily in the context of community mobility rather than including the health of people in their homes. Likewise, problem statement 2 makes reference to "amenity" but again the data presented in Appendix B is related to transportation and crashes. No data has been presented with respect to the problem of public health harm caused by road-traffic noise from the existing network.

It is recommended that the problem statements should be extended to explicitly include public health harm from road-traffic noise, throughout the area of the project and the area of influence. Data should be provided to quantify the extent of this existing exposure. All options should be assessed with respect to the WHO

[11] https://www.transport.govt.nz/assets/Import/Uploads/Research/Documents/3558c194f0/D2-National-land-transport-map-Boland-AECOM.pdf
[12] https://www.nzta.govt.nz/projects/nelson-future-access-project/useful-documents/

recommendations for road-traffic noise set out above (across all of the area of influence), before determining a preferred package.

Given the extent of existing road-traffic noise exposure, packages that increase capacity on the network (Coastal Corridor Widening or Inland Route Package) are likely increase harm to public health, particularly where a new corridor is established (Inland Route Package). While the Priority Lanes package would not directly address existing harm from road-traffic noise, it could potentially contribute to a long-term approach to reduce that harm, in conjunction with traffic management and appropriate regional spatial planning and land-use controls.

Question 2: Which package do you think will help you change the way you choose to travel?

14. *Priority Lanes Package*: This option focuses on improving active and public transport, this enables people to have mode choice. In addition, neighbourhood social capital may influence health by increasing access to local services and amenities. The same may be said for accessing services such as community health clinics or recreational facilities which are relevant to health.

    The other two options will create severance issues for either the Victory or Tahunanui communities thereby limiting people's transport options. Community severance arises when roads carrying high levels of traffic cut through residential neighbourhoods. Community severance produces a range of direct negative impacts on health, including reduced social support, reduced access to facilities and restricted access which increase the level of stress for some groups of the community. Severance could also result in reduced access to cycling and pedestrian networks resulting in fewer people wishing to use these active modes to travel

    In relation to the Inland Package (Southern Arterial) the HIA stated that an area with a high proportion of young children and busy community facilities, this roading option is likely to increase traffic flow in some areas around schools which will add to the "danger perception" and would introduce a sense of perceived danger, impediments to crossing the road, and difficulties in turning in or out of driveways and intersections. At present, these problems are not currently faced and … this option may reduce free movement and cause issues for students accessing Kindergarten, Primary and Intermediate Schools.[13]

[13] http://www.nelson.govt.nz/assets/Our-council/Downloads/Plans-strategies-policies/ATS-health-impact-assessment-stage-3.pdf pg 16.

Regarding the Coastal Widening option (SH6 Four Laning), the HIA[14] stated that this option is likely to have a major negative physical and psychological severance as well as community disruption. Increased proximity of traffic to some housing and to school premises, especially classrooms will add to the sense of perceived danger, creates added impediments to crossing the roads and may result in the loss of positive learning opportunities. In addition, access to health services may be restricted.

Private property owners and pedestrians would experience more difficulty in crossing to facilities and services and accessing homes as a result of the doubling of the current carriage width. Overall it is likely to reduce walking and cycling levels. Difficulties at some intersections, local driveway access and parking issues are likely to occur.

In order to mitigate these severance issues, more frequent pedestrian crossings or underpasses were required along with safe cycle and walking lanes, improve Traffic Demand Management processes, and restrictions on heavy traffic movement.

Question 3: Which package best responds to sea-level rise?

15. *The Priority Lanes Package:* Given the proximity to the foreshore, the Coastal widening package least responds to the sea level rise.

    Utilising the existing network and promoting active and public transport are ways of reducing overall carbon emissions which will help mitigate the level of sea level rise.

Question 4: Which package best responds to reducing carbon emissions?

16. *The Priority Lanes Package* as this package looks at improving the transport network for all modes of transport. Widening the existing roads and adding new roads will increase capacity of the roading network thereby allowing more vehicles which will result in higher emissions. Vehicle engines produce a number of air pollutants that may pose risks to health either as acute effects or through chronic exposure. Air pollution is an issue for Nelson particularly in parts of the city affected by topography (valleys) and climate (inversion layers). These pollutants include Particulate Matter (PM_{10} and $PM_{2.5}$) that can penetrate the respiratory system, ozone (O_3), sulphur dioxide (SO_2) and nitrogen oxides (NOs) which include nitrogen dioxide (NO_2) which can contribute to increased morbidity and mortality particularly for asthmatics and young children, and carbon monoxide (CO).

[14] Ibid, pg. 17

Some groups are more susceptible to pollution e.g. children, the elderly, people with pre-existing medical conditions and people who are actively exercising. Some of the roading options are adjacent to places (e.g. schools and hospital) with increased numbers of people from these groups. People who cycle or walk to work during peak traffic flow are also a vulnerable group.

Within the roading options, in addition to variation in the background level of pollution, there is also variation in the way vehicle pollutants will disperse and therefore impact on the population in the surrounding area. It is well accepted this is of most concern in the Victory Valley area where there is a significant problem with winter inversions resulting in pollutants not dispersing rapidly.

This will impact on the Inland Route which is predicted[15] to have a moderate adverse health impact from traffic related air pollution, particularly in the Victory/St Vincent Street area which has a high baseline of poor air quality, a high proportion of children living in the area and several schools and a kindergarten. These effects could be mitigated by banning heavy goods vehicles from the road, ensuring adequate separation of cycle and walkways from the road, and strategies to decrease vehicle numbers.

The previous proposed Southern Link did not gain consent, as the national standards of air quality in the associated air shed were not met. Some gains in air quality may have been made in recent years and the Council is actively working to improve air quality in this air shed with a programme to decrease open fires and replace old wood burners with more efficient ones. However, this should not be seen as an opportunity to increase air pollution again with vehicle emissions.

The Priority Lanes Package is likely to have a low adverse health impact from traffic related air pollution. These effects could be mitigated by ensuring adequate separation of cycle and walkways from the road, and active approaches to decreasing vehicle numbers.

Question 5: Which long-term package is lively to be the most successful in getting more people to walk and cycle between Annesbrook and the city centre?

17. *Priority Lanes Package*. This Package focuses on improving active and public transport facilities.

The Inland Route will negatively impact recreational walking and cycling. While the current shared path in the Railway Reserve is a well-used recreational resource the

[15] Ibid HIA pg 38

replacement facility is likely to be unattractive for recreational use being beside and below the new road. This may in part be offset by an increase in recreational physical activity along the other arterial routes as traffic volumes drop.[16] The negative impacts of this option could be mitigated if the proposed shared path was redesigned and its placement in relation to the proposed road reconsidered.

Coastal Widening is likely to have a neutral impact on both active transport and discretionary recreation[17]. While good standard cycle lanes and footpaths will be provided replacing the current poor quality footpath and cycle lanes, the size of the proposed road may make the road difficult to cross and unappealing to walk or cycle along. This could be mitigated if consideration is given to screening between Rocks Road and the shared path, and good provision is made to enable walkers and cyclists to cross onto the shared facility.

Question 6: Do you prefer cycle paths separated from road traffic or on-road cycle lanes?

18. Separated cycle ways are preferred as they are more pleasant to cycle as there is reduced traffic noise. Consideration also needs to be given to the lighting of the cycle ways. The Railway Reserve is an extremely popular cycle and walking route for people of all ages however lack of lighting deters people from using the route especially in winter months.

    NMH recommends the following

    - That solar lighting is provided on cycle paths
    - That a Crime Prevention Through Environmental Design (CPTED) assessment is done to mitigate any potential safety issues which may encourage more active transport and improve health outcomes.

Question 7: Do you have any additional comments about walking and cycling?

19. NMH applauds the work that NCC has been doing to promote walking and cycling through the provision of many separated pathways. NMH encourages that the NZTA and NCC continue to consider the importance of cross city connections into the existing walking and cycling network to improve connectivity and accessibility.

    NMH also is pleased to work alongside NCC and NZTA through the Active Transport Forum, Road Safety Forum, and the Accessibility for All Forum to support

[16] Ibid HIA pg 30

[17] Ibid HAI pg 30

improvements for all those using the walking and cycling network regardless of mode or ability.

Question 8: What is more important to you, providing space to park or providing space for walking and cycling?

20. NMH supports proving additional space for walking and cycling however NMH notes the need for accessible parking for essential service providers such as health centres and pharmacies.

Question 9 If an extra lane was created, who should have priority?

21. *In order of preference: Option 2: Only buses; Option 3: Buses, freight and cars carrying more people; Option 1: All traffic.*

    The Government's current transport goals are to place greater focus on safety, accessibility, resilient and liveable cities. Prioritising bus travel enables more people to travel in fewer cars thus reducing vehicle emissions and leading to healthy environments. Giving buses priority also means that bus journey times are lower making it a more attractive mode of transport.

    Buses are a safe way to travel, researchers from the Universite de Montreal Public Health Research Institute found that the bus was a safer travel option than driving a car and showed that the risk of injury is four-times greater for drivers compared to bus occupants[18].

Do you have any additional comments about extra lanes?

22. Traditionally transport networks have focuses on providing greater capacity for moving cars and freights rather than providing space for cyclists, pedestrians and other micro modes. NMH advocates for greater lane capacity for active and public transport modes of transport. NMH does not advocate for additional lanes for single-occupancy vehicles because this will exacerbate existing problems such as congestion, noise and air pollution and severance.

Question 10: Which long-term package is likely to be the most successful in getting more people to use public transport?

23. *Priority Lanes Package*. The Inland Route and the Coastal Corridor options would lead to greater road capacity, and this may reduce the effectiveness of public transport and travel demand initiatives making them less sustainable. These

[18] https://www.earth.com/news/taking-bus-safer-car/#:~:text=Researchers%20from%20the%20Universite%20de,drivers%20compared%20to%20bus%20occupants.

options would not encourage a mode shift as much as the Priority Lanes Package. It is recognised that the increased use of Public Transport and the introduction of Travel Demand Management measures would provide significant social and environmental benefits if implemented in an integrated manner along with roading improvements. Public Transport and Travel Demand Management strategies would need to include viable and attractive alternatives to private car use.

Our ageing population and its subsequent impact on lowering the demand for cars must be considered. There may be more demand for public transport as ability to drive decreases. Therefore it is important that there is a safe, reliable, easily accessible public transport system available. In addition, pedestrian facilities and crossing points also need to be improved so that there are maximum safety gains. Walking is integral to the success of public transport with every public transport journey beginning and ending with a walk.

Question 11 Rank the packages that you think are best in general at solving Nelson' transport issues?

24. NMH ranks the Priority Lanes Package as the best package because

a) it does not increase the road capacity therefore it does not encourage more cars resulting in an increase in noise and air pollution, and carbon emissions

b) it increases options for modal shift thereby improving transport options.

c) it does not significantly result in community severance although there may be some minor severance issues that can be mitigated

Therefore the Priority Lanes Package is NMH preferred option because as it aims to further improve public transport, walking and cycling trips with the goal of reducing the number of single-occupant vehicles using the two main arterial routes. This will result in better health outcomes for Nelson/Tasman residents.

Do you have any additional comments about the long-term packages we-have suggested?

25. In terms of creating new roads, the Inland Route and the Coastal Widening options may be expected to result in an increase in the number of cars, and increase in the numbers of kilometres travelled and therefore more traffic crashes and road injuries. More cars travelling more kilometres is likely to further reduce the safety of active transport users. Therefore, a higher priority should be placed on Priority Lane Package to move more people with fewer vehicles.

26. NMH would like to see excellent linkages for all modes into health services, including Nelson Hospital, NMH are happy to work with Waka Kotahi and NCC to improve connections especially in regards to active modes.

Question 12: If you could create your own long-term packages to support Nelson's future transport network, what options would you include?

27. NMH recommends that the Healthy Street Indicators[19] are used to design long-term packages. These indicators are based around designing streets so that they improve air quality, reduce congestion and help make diverse communities greener, healthier and more attractive places to live, work, play and do business.

Question 13: Do you support the installation of more crossing points?

28. Yes, NMH supports the installation of more crossing points so that pedestrian and cyclists have more opportunities to cross the road safely. This reduces severance and it allows people to have better access to services in the community. Waka Kotahi's Urban Design Principles[20] state that at-grade crossings are preferred by pedestrians and cyclists however it may be unfeasible to offer these. Therefore NMH also supports the installation of pedestrian bridges as long as they meet the design principles in relation to accessibility, lighting, safety and amenity.

29. NMH was pleased to see that within the Proposed Pedestrian Corridor document that new traffic signals have been proposed for the Franklyn Street / Waimea Road intersection. NMH supports this as this will enable pedestrians and cyclists to have easier access to the facilities, bus stops and schools in this area.

30. NMH notes that Washington Road has been identified as a primary pedestrian corridor however the Pedestrian Corridor document does not identify improving the pedestrian facilities at the intersection of Washington Road/Princes Drive/Britannia Heights. The current design of road makes it difficult for pedestrians to see approaching traffic which makes this intersection dangerous for vulnerable road users.

[19] https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/healthy-streets

[20] https://www.nzta.govt.nz/assets/resources/urban-design/principles/pedestrian-bridge/docs/urban-design-principles-pedestrian-bridges.pdf

Conclusion

31. NMH thanks Waka Kotahi NZ Transport Agency for the opportunity to comment on the Nelson Future Access Project.

32. NMH is supportive of proposals that aim to improve safety and accessibility of the public and active transport network as this investment can promote accessibility and community cohesion, reduce congestion, improve safety, reduce transport emissions and improve public health. These initiatives align with the Government's overall transport objectives. NMH is happy to be contacted to provide additional feedback on our submission if required.

Yours sincerely

Peter Bramley
Chief Executive
Peter.bramley@nmdhb.govt.nz