

**BEFORE THE INDEPENDENT HEARINGS PANELS APPOINTED TO HEAR AND MAKE
RECOMMENDATIONS ON SUBMISSIONS AND FURTHER SUBMISSIONS ON PROPOSED CHANGE 1
TO THE REGIONAL POLICY STATEMENT FOR THE WELLINGTON REGION**

UNDER

the Resource Management Act 1991 (the
Act)

AND

IN THE MATTER

of Hearing of Submissions and Further
Submissions on Proposed Change 1 to the
Regional Policy Statement for the
Wellington Region under Schedule 1 of the
Act

**STATEMENT OF EVIDENCE OF DUNCAN BARRY TINDALL
ON BEHALF OF GREATER WELLINGTON REGIONAL COUNCIL
TECHNICAL TRANSPORT PLANNING EVIDENCE
HEARING STREAM THREE – CLIMATE CHANGE-TRANSPORT**

28 August 2023

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INTRODUCTION

- 1 My full name is Duncan Barry Tindall. I am a Technical Director – Traffic Engineering and Transport Planning at GHD New Zealand, based in Tauranga.
- 2 I have read the evidence and statements provided by submitters relevant to the Section 42A report on Climate Change -Transport.
- 3 I have prepared this statement of evidence on behalf of Greater Wellington Regional Council (**the Council**) in respect of the technical transport planning related matters arising from the submissions and further submissions Proposed Change 1 to the Regional Policy Statement for the Wellington Region (**Change 1**).
- 4 Specifically, this statement of evidence relates to the technical transport planning matters to support the Change 1 Section 42A Report – Climate Change- Transport.
- 5 I am authorised to provide this evidence on behalf of the Council.

QUALIFICATIONS AND EXPERIENCE

- 6 I hold a Masters Degree in Civil Engineering from Imperial College, London, and a Masters Degree in Transport from the Centre for Transport Studies, London. I am an affiliate of the Engineering New Zealand Transportation Group and a Member of Engineering New Zealand.
- 7 My work experience includes over 25 years in transport planning and traffic engineering. I have been based in New Zealand since 2010. Prior to moving to New Zealand I worked as a traffic engineer and transport planner in the UK and central Europe for 13 years. I worked on a range of road, planning and development-related schemes for national and local government and for private developers.
- 8 My experience in New Zealand includes scheme design, assessment and review roles in the transport planning and traffic engineering field, for both local and national government in design and assessment and for development assessment, and for private developers in preparing for resource consent and plan changes.
- 9 Additionally, I was the Implementation Manager for SmartGrowth, the spatial plan of the Western Bay of Plenty. This role was co-funded by the Bay of Plenty Regional Council, Tauranga City Council and the Western Bay of Plenty District Council and was created to deliver alignment in the spatial planning of the region, co-ordinating the future growth areas and future changes to the Regional and District Plans with infrastructure delivery to create efficiencies and improves social outcomes.

10 My relevant experience includes:

- The preparation of the Transport Assessment and Expert Witness for Riverlink (Waka Kotahi, Hutt City Council and Greater Wellington Regional Council);
- Integration Lead LGWM Transformational Programme (MRT and SH1) Indicative Business Case; and
- Expert Evidence for Plan Changes in relation to Urban and Rural Residential Developments in Waikato, Bay of Plenty on behalf of Local Councils and Waka Kotahi.

CODE OF CONDUCT

11 I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023 (Part 9). I have complied with the Code of Conduct in preparing this evidence. My experience and qualifications are set out above. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

12 I have prepared this statement of evidence which has been co-authored with the support of Anna Solomon, GHD Transport Planner.

SCOPE OF EVIDENCE

13 My evidence addresses:

- Outline of how the rural infrastructure network could be amended to achieve the outcomes of Policy CC1 (primarily in relation to Tier 3 councils).
- Recommend if a definition for 'optimising transport demand' and 'efficient transport network' in the context of Policy CC.9 and Policy CC.1 should be undertaken, if yes develop one.
- Assist with recommended changes to Policy CC.2 Travel Demand Management Plans.

BACKGROUND – RELEVANT RPS PROVISIONS

- 14 Several of the submissions seek clarification on the use of ‘optimise travel/transport demand’, this included requesting a definition and making the intent of Policy CC.1 clear. Further points stated that achieving the outcome of this policy was more achievable for tier one over tier three councils. The Greater Wellington Region is made up of six, tier one authorities.
- 15 Policy CC.9 also uses the term ‘optimise transport demand’ and as such I understand that any clarification or amendments to Policy CC.1 would also apply to the implementation of Policy CC.9.
- 16 With regards to Policy CC.2 the intent is for territorial authorities to develop thresholds that would trigger the requirement for a travel demand management plan to be provided as a part of a resource consent application. Submissions state the application of the policy for tier three councils is not appropriate, this includes the development of local thresholds to trigger the plan, and corresponding monitoring and enforcement issues. Further submissions state the plans should be developed at a neighbourhood scale, and that operational issues which present barriers to public transport usage cannot be addressed as a part of this policy.

Proposed Change 1 to the Regional Policy Statement

- 17 The following considers the intent and outcomes sought by policies CC.1, CC.2 and CC.9 as drafted in Change 1.

Policy CC.1: Reducing Greenhouse Gas Emissions Associated with Transport Infrastructure- District & Regional Plans

- 18 This policy recognises the key interdependencies between spatial planning, transport, and carbon emissions. The outcome sought by this policy relies on the consideration of well-planned/located development that integrates transport infrastructure for sustainable modes ahead of provision for private vehicles. The policy does not seek to restrict the movement or access to certain development or modes, it seeks to promote the best use of the transport network to facilitate choice and make it easier to move people in a manner that minimises greenhouse gas emissions.
- 19 The policy is grounded in the broader principle of travel demand management (TDM)¹ which is made up of several strategic policy initiatives, and both soft and hard incentives, which seek ultimately to change behaviours in the way people choose to travel and as a result shift demand across the transport network. Globally, successful implementation of travel demand management programmes includes

¹ ‘An application of strategies, policies and initiatives to reduce travel demand or redistribute demand across multiple modes of transport’, Waka Kotahi Research Report 661 Travel Demand Management Strategies: strategies & outcomes.

defining and communicating clear goals, objectives, and targets, and including improvements to transport options and incentives to change travel behaviour². Generally, categories and strategies of TDM can be defined as; improve transport options, financial incentives, land use planning and development and outreach programmes. Some of these categories/initiatives cannot be achieved in the context of the RMA.

- 20 Specifically, the policy directs objectives, policies and methods/rules that consider the design, construction, and operation of the new or altered transport infrastructure. The policy does not seek to implement the broader scope of TDM, it is not trying to address all barriers associated with the patronage of public transport or subsidiary to sustainable modes, as this would not be possible within the context of the RMA. However, it seeks to limit or minimise the same barriers to the provision and operation of efficient transport networks that currently exist within the New Zealand context.
- 21 These barriers could broadly be considered as poor connectivity and accessibility to developments, due to growth in inaccessible locations, a lack of consideration for alternative means of travel to the private car, and a failure to provide integrated transport infrastructure that would support alternative journeys or travel choices.
- 22 Waka Kotahi have adopted the Avoid-Shift-Improve (ASI) Framework as part of the Toitū te Taiao, Sustainability Action Plan³. This approach is grounded in TDM principles and can be adapted to incorporate those categories of TDM achievable in the resource management context. The ASI framework seeks to achieve significant reductions in emissions, energy consumption, reduce congestion and create more liveable places through a hierarchical approach to policy measures.
- 23 The hierarchical approach adopted in the drafting of Policy CC.1 is reflective of the ASI framework however is not explicit. I interpret the use of the term 'optimising' as intending to embed the ASI framework and achieve travel demand management in the resource management context, key elements of which have been included in paragraph 59 for clarity.
- 24 The ASI framework seeks first to 'Avoid', by considering the spatial pattern of development in the provision of new or altered transport infrastructure, reducing trip length, and making sustainable mode choices a viable alternative to private vehicle trips where there is a need to travel short distances. Put simply, if journeys are shorter, the emissions made on that journey will be lower than a longer journey of the same mode.

² Waka Kotahi Research Report 661 Travel Demand Management Strategies: strategies & outcomes.

³ Toitū Te Taiao - Our Sustainability Action Plan (nzta.govt.nz)

- 25 Additionally, it is our experience that there is an increase in the proportion of trips undertaken by private car when the travel distance increases, and that across the vehicle fleet of New Zealand these journeys produce more emissions per trip than equivalent trips undertaken using other modes. 'Shift', seeks to reduce barriers in the existing network and to reallocate space to low-carbon modes (public transport, active or shared modes) to support mode shift.
- 26 Finally, 'Improve', through provision and design of transport infrastructure to facilitate public transport, active or shared modes, this includes design to support operation to minimise emissions from private vehicles.
- 27 Where the avoid and shift layers are applied the intent is that some increases in capacity (Improve) may no longer be needed, as such the first two layers should be considered ahead of any increases in capacity to the transport network, particularly if they are to facilitate private vehicle movements.
- 28 In applying (a) Optimising overall transport demand of the policy, the intent is for the ASI framework to be applied, by virtue *'all new and altered transport infrastructure is designed, constructed, and operated... to 'optimise' transport demand, maximising mode shift (b) and supporting the move towards low and zero-carbon modes (c).*

Policy CC.9: Reducing Greenhouse Gas Emissions Associated with Transport Infrastructure-
Implementation

- 29 This policy requires consideration of the principles of the ASI hierarchy by using the term 'optimising transport demand'. Any subdivision, use and development would need to be considered against the levels of this hierarchy and this in turn should influence the location and design, the need to travel and how far, and subsequent operation and modal or travel choice.
- 30 The policy directs *'maximising mode shift from private vehicles to public transport and active modes...reducing greenhouse gas emissions'*. There is the potential this is not broad enough to capture all travel patterns or reflect there is still a need for private vehicles. The policy should reflect there is still an ability to contribute to reducing greenhouse gas emissions through low emission or electric modes.

Policy CC.2: Travel Demand Management Plans

- 31 This policy supports Policy CC.1 and CC.9 in the consideration of how location and design of subdivision, land use and development influence types of journeys and choice of mode. The intent of the policy is to require consideration of this as part of the feasibility and design of new or altered development. An

assessment would be provided demonstrating how the ASI framework has been considered as a part of an application and would provide justification as part of the consenting process.

- 32 The intent to apply Policy CC.1 regionally reflects the fact that the first layer of the ASI framework requires strategic consideration due to the spatial pattern of land use influencing travel patterns. The development of thresholds locally to trigger the assessment acknowledges the differences in connectivity and accessibility between urban and rural environments.
- 33 The principle of travel demand management plans aligns with high-level direction provided in the Climate Commission's draft strategic advice for the second Emission Reduction Plan (yet to be released discussed paragraph 47). This advice directs the use of transitional measures to support climate change adaptation, these measures could include existing levers and tools available for local government that would provide clear direction to avoid further development that locks in high emissions.
- 34 The use of 'plan' suggests that the scope should include measures to be implemented post consent that would influence how journeys are made or mitigate the impact where required. It is not clear how the interaction of Travel Demand Management Plans and where Territorial Authorities require, Transport Assessments as a part of their planning framework, will function together. In particular how the scopes overlap and expectations of assessment and mitigation measures within each.
- 35 The following provides a summary of relevant key themes in submissions covered in this evidence.
- 36 The relevant key themes in the submissions in relation to Policies CC.1 and CC.9 are:
- Unsure and unclear on what is meant by optimisation of travel demand
 - Include a definition of 'optimise'
 - This policy is more achievable for Tier 1 councils than Tier 3
 - Uncertain how this policy would apply in the rural setting
 - Clarity sought on intent and implementation of the policy
- 37 The relevant key themes in the submissions in relation to Policy CC.2 are:
- Not appropriate for the Territorial Authorities (TA's) to develop the threshold targets
 - It is unclear how this policy can be applied in the rural environment
 - Thresholds would be different depending on zone, location and existing transport network
 - Travel management plans should be developed to a neighbourhood scale

- Other tools (other than travel demand management plans) are available to Territorial Authorities to ensure developments are not car centric
- Creates monitoring and enforcement issues
- Travel demand management plans are a type of method
- The location and design of subdivision enable transport choices
- The policy can't address operational issues that present barriers to public transport usage such as ticketing, fares, service

BACKGROUND - KEY INTERDEPENDENT LEGISLATION AND POLICY

38 The RMA provides the legislative framework for which national policy statements (NPS) and regional policy statements (RPS), regional and district plans are developed. The outcomes sought within these policies and planning frameworks are also reliant on legislation and policy that sits outside of the scope of the RMA. The following outlines the key interdependent legislation and policy as it applies to transport and its contribution to carbon emission reduction.

Government Policy Statement- Land Transport

39 The Government Policy Statement Land Transport 2021 (Transport GPS 2021) operates under the Land Transport Management Act 2003 (LTMA) and is the key strategic document to determine government priorities in transport expenditure and long-term outcomes over the next 10 years. The Transport GPS determines how investment into the land transport system from the National Land Transport Fund (NLTF), will contribute to achieving overall government outcomes. The NLTP is given effect to through Regional Land Transport Plans (RLTP) and takes account a range of policies and strategies including but not limited to the Urban Growth Agenda, Housing and Urban Development Government Policy Statement (HUD GPS) and National Policy Statement Urban Development 2020 (NPS-UD).

40 The Transport GPS contains a Transport Outcomes Framework⁴ (TOF) to consider how investment will contribute to a transport system that improves overall wellbeing and liveability this is made up of five broad outcomes and the principle of mode neutrality. The TOF is supported by four strategic priorities⁵ which provide consistency with the HUD GPS, this ensures direction across land transport and land use policy is consistent. By virtue of the application of the TOF and four strategic priorities the Transport GPS helpfully applies travel demand management through out, providing a definition and purpose to guide application which links to the LTMA purpose.

‘Demand management refers to interventions which change the demand for transport. These interventions may seek to influence how, when and where people travel, and freight is transported. The purpose of demand management is to ensure the transport system is utilised efficiently and effectively, and to reduce the negative impacts of travel and freight movement. Mode shift is one way of managing demand’⁶.

41 The Better Travel Options priority is to be achieved through the optimisation of the existing network, embedding the travel demand management hierarchy into the Transport GPS. A key part of achieving

⁴ [Government Policy Statement on Land Transport 2021/22-2030/31](#)

⁵ Four Strategic Priorities: Safety, Better Transport Options, Improving Freight Connections, Climate Change, Government Policy Statement on Land Transport 2021

⁶ [Government Policy Statement on land transport 2021/22-2030/31](#)

this outcome is through accelerating mode shift and shaping urban form, making shared and active modes more attractive and influencing travel demand and choice through local government.

- 42 The Climate Change priority also seeks to shape land use, urban form and street design in a way that reduces car dependency and makes sustainable modes safe and attractive travel choices to reduce greenhouse gas emissions (Greenhouse Gas emission reduction targets are set by the Climate Change Commission and link to Objective CC.2 of Change 1).

Walkable Catchments- NPS-UD

- 43 The NPS-UD 2020 directed the creation of walkable catchments, a network used to identify areas suitable for intensification based on their accessibility to amenities such as public transport. These catchments assume a certain level of accessibility and connectivity and as such development within them needs to facilitate and continue to provide for walking, cycling and access to public transport networks, and further reduce the reliance on private vehicles.

Emissions Reduction Plan 2022-2025

- 44 The need to reduce emissions and shift to more sustainable uses and modes of transport is well established within policy internationally and locally in New Zealand. This is a complex challenge and not one which can be solved through transport alone. This is highlighted by Te hau mārohi ki anamata, New Zealand's Emission Reduction Plan 2022-2025 (ERP) establishing that the planning system and investment in infrastructure needs to support emissions reductions across the transport, building and construction, forestry and nature-based solutions, energy, waste and agriculture sectors.
- 45 Three focus areas guide the approach to reduce transport emissions in the ERP, these include reducing reliance on cars and supporting people to walk, cycle and use public transport, rapidly adopting low-emissions vehicles, and beginning work to decarbonise heavy transport and freight. Achieving these focus areas relies on complimentary policies such as schemes to incentivise low-emissions fuels and changing the way towns and cities are planned to make it easier and safer for people to rely less on private vehicles.
- 46 Mode shift on journeys from private internal combustion engine (ICE) cars towards walking, cycling, public transport and low emission vehicles make up only a portion of the overall reduction in emissions that needs to be achieved. The fundamental change will come from changes to urban form and spatial planning, this is reflected in the first stage of the ASI hierarchy discussed in paragraphs 24.

Climate Commissions Draft Advice (second Emissions Reduction Plan)

47 The Climate Commission released its draft advice to inform the strategic direction of the Government’s second emissions reduction plan, covering Aotearoa New Zealand’s 2026–2030 emissions budget. This is currently out to consultation, The Transport chapter includes two key recommendations in relation to increasing public transport, walking and cycling and low emission vehicles related to the planning system.

16: *Simplifying planning and increase funding of integrated transport networks that optimise public and active transport. For major population centres, the Government should also complete cycleway networks by 2030 and take steps to complete rapid transport networks by 2035.*

17: *Rapidly resolve the barriers to scaling up vehicle charging infrastructure⁷.*

48 The Climate Commission considers the different timeframes to develop safe infrastructure for walking, cycling and public transport in the context of the pace that transport needs to decarbonise, and the ability for infrastructure for walking, cycling and public transport to be delivered faster than changes in urban form. Also noted are the transitional measures will need to be put in place to support local government to take proactive climate mitigation and adaptation steps. Measures could include clear direction on what existing levers and tools local government should use to avoid further development in areas at risk from climate change, or development that locks in high emissions.

⁷ [Full report: 2023 Draft advice to inform the strategic direction of the Government’s second emissions reduction plan \(April 2023\) » Climate Change Commission \(climatecommission.govt.nz\)](#)

BACKGROUND - EXISTING TRAVEL PATTERNS IN THE GREATER WELLINGTON REGION

- 49 Objective CC.3 of Change 1 outlines the regional targets for carbon emissions reduction and mode share. These targets are supported by the RLTP 2021 and Regional Mode Shift Plan 2020 (RMSP) to increase active travel and public transport by 40% by 2030.
- 50 As outlined in the Section 32 Report⁸, transport is the biggest contributor to carbon emissions within the Wellington Region over 2018-2019 this was 39%, this is up 14% on 2001. Increases across transport are made up of road and petrol vehicles (up 8%), aviation (up 37%) and shipping (up 22%). Regionally emissions vary, over the same period, Upper Hutt (down 6%), Wellington City (up 4%), Kapiti and Wairarapa (up 40% and 41%) the rise in Kapiti and Wairarapa due to transport of logs, and emissions being allocated where the logs originate.
- 51 Regional mode share differs across the region, which reflects the diversity in the Greater Wellington region and the different levels in accessibility and connectivity to homes and jobs by active mode and public transport networks. Existing travel patterns reflect how urban form and provision of transport infrastructure shape the way people travel within the Wellington Region.
- 52 The RMSP identifies areas and priorities for mode shift, grouping these into, trips across the region into Wellington City; trips connecting other places across the region such as east-west; trips within Wellington city; and short local trips to urban centres around neighbourhoods and to schools. By virtue of the urban and rural environments across the region the emphasis for each of the areas and priorities differ. Key opportunities for mode shift in different parts of the region are included in the RMSP, these have been aligned with the Waka Kotahi national mode shift plan 'Keeping Cities Moving' which draws on three key levers, shaping urban form, making shared and active modes more attractive, and influencing travel demand and transport choices.
- 53 To highlight the differences across the region a snapshot of mode share for travel to work and education from the RMSP is included in appendix C, along with the consideration of data from Statistics New Zealand (paragraph 56). The highest 'shared and active mode (public transport, walking and cycling)' share is in Wellington City at 44% followed by Hutt City at 26%.
- 54 The Wellington City mode share is somewhat reflective of the constrained urban form meaning employment and residential areas are located within relative proximity. This proximity highlights opportunities for significant mode shift including densification around transport nodes and routes integrated with the provision of transport infrastructure to support travel choices.

⁸ Section 32 Evaluation of provisions, August 2022

- 55 Given its rural characteristics the Wairarapa has the lowest 'shared and active mode share', with the highest use of private vehicles, and the highest number of people working from home. The portion of active mode share contained within the 'shared mode share' is however the third highest active mode share (walking and bike) across the region along with Kapiti Coast.
- 56 Data from Statistics New Zealand Commuter-Waka tool⁹ shows Wairarapa towns appear to have noticeably high rates of commuting between other Wairarapa towns, this could be attributed to local employment and education and higher rates of working from home. The inter town commuting and level of active mode share suggests there could be opportunities to promote more infrastructure to promote low emission vehicles and infrastructure to promote further mode shift between towns. Further opportunities exist to support the existing public transport and associated mode share through the integration of new transport infrastructure to facilitate more commuter trips to locations outside of the Wairarapa by alternative modes or multi modal options.
- 57 Existing urban form and travel patterns suggests there is opportunity for significant mode shift within the Wellington Region, however this needs to be facilitated through travel demand measures, integrating development, and providing complimentary transport infrastructure for all modes that connects people to where they want or need to go.
- 58 The differences across the region suggest that Policy CC.1 needs to address a broad range of matters and provide a regional approach to how schemes locally, contribute to achieving region wide mode share and carbon emission reduction targets. I consider that Change 1 policy scope is broad enough to apply across the Wellington Region while still allowing for local travel choice variations to be facilitated, and so are able to achieve the intended purpose.

⁹ [Commuter - Waka](#)

TOPIC EVIDENCE

POLICY CC.1 AND POLICY CC.9: REDUCING GREENHOUSE GAS EMISSIONS ASSOCIATED WITH TRANSPORT INFRASTRUCTURE-DISTRICT AND REGIONAL

Suggested changes to make intent of policy clear

59 As discussed in paragraph 23 the use of 'optimising' was intended to achieve travel demand management and embed the ASI framework. The drafting of the policy reflects this, although it is not explicit. In addition, GPS Land Transport, includes the Waka Kotahi intervention hierarchy for investment in transport infrastructure which is grounded in travel demand management principles. Both hierarchies seek to influence why and how people travel, making the best use of existing or new transport infrastructure for all modes, in doing so 'optimising transport demand', the key elements of managing transport demand in the resource management context include:

- Influencing demand spatially and reducing trip length
- Concentrating development close to existing sustainable modes, reducing barriers and reallocation to low carbon modes
- Provision and design of infrastructure to facilitate active modes and public transport and minimise emissions from private vehicles (this includes capacity increases)

60 Policy CC.1 could be altered to better align with the ASI Framework and Waka Kotahi intervention hierarchy, this could be achieved through developing a hierarchy that is specific to the resource management context and embedding it within the policy. Including the hierarchy in the policy would address all elements of travel demand management that I understand can be achieved in the resource management context, reducing transport carbon emission through land use planning and facilitating sustainable travel choices. Inclusion of the hierarchy would also provide consistency with other policy and legislation that is outside of the resource management context, but which relies on land use planning to achieve broader outcomes.

61 The key elements of travel demand within the resource management context are set out above in paragraph 59. Influencing the pattern of development spatially, co locating uses and concentrating development in proximity of transport nodes will provide for accessibility benefits, the more concentrated uses are the higher the accessibility¹⁰ and the lower the carbon emissions. The higher the

¹⁰ Understanding and implementing intensification provisions for the NPS on urban development (environment.govt.nz)

accessibility the more options there are to travel by alternatives to private vehicles and the greater potential of these journeys being made by active modes.

- 62 'Accessibility' is considered as destinations, being able to be easily reached or used by all persons. The cost and effort required to undertake the journey is a concept known as the disutility, where ultimately that barrier is so high that the journey becomes unfeasible. The policy is seeking to reduce the disutility by reducing the elements that contribute to the disutility of a journey – distance, access to a mode (ie no bus stops, no safe walking or cycling route), etc.
- 63 Walkable catchments introduced by the NPS-UD seek to identify areas for intensification based on an assumed accessibility level to amenities and public transport. The term captures the benefits of co location and intensification around public transport and could be beneficial for inclusion within the hierarchy. A definition of 'walkable catchment' to assist with implementation has also been recommended.
- 64 There are multiple factors that are considered to determine how walkable an area or a place might be. Walkability can be measured through time or over a distance and is based on an average walk speed. Time allows for consideration of quality factors such as gradient and severance, whereas distance will measure the average speed between two points but not consider the variance in quality of the connection over that distance. As such the use of time allows for a broader consideration of factors within the walkability metric. The graduality of data used to define the metric can also vary, the more granular the data the more tailored the metric would be for a specific area or location.
- 65 An indicative figure is provided in the NPS-UD implementation guide¹¹ of around 800 metres which assumes most people will walk 10 minutes to access services and amenities in an urban environment.
- 66 In reality the type and quality of service or amenity will influence how far people are likely to walk, and this would differ in a rural and urban setting. Specific to public transport, the connectivity offered by the service will influence the distance a person is likely to walk to access a particular mode. For example where a train service offers high frequency and access to multiple destinations the more likely a person is to walk further to access that service.
- 67 The differences between urban and rural settings suggests that the indicative figure included in the NPS-UD implementation guide would not be appropriate to adopt directly for the purposes of defining a walkable catchment. The NPS-UD implementation guide suggests extending this to accommodate

¹¹ [Understanding and implementing intensification provisions for the NPS on urban development \(environment.govt.nz\)](https://environment.govt.nz/understanding-and-implementing-intensification-provisions-for-the-nps-on-urban-development/)

differences in the rural setting such as severance, topography, street layout, connectivity and access to travel choices.

- 68 As such, should 'walkable catchment' be used within the hierarchy for Policy CC.1 a definition could include a metric of 20 minutes as an average, reflecting the differences between urban and rural settings. A definition for walkable catchment has been included in paragraph 79 for consideration.
- 69 The policy should cover the lifecycle from design through to operation of the transport infrastructure to facilitate transport choices and deliver on emission reduction and mode shift outcomes. As such 'designed, constructed and operated' should be retained within the wording.
- 70 The removal of (a-c) is proposed to be replaced with a more detailed hierarchy, these however should be reflected in revised policy wording and explanation as the hierarchy makes reference to these terms still.
- 71 To incorporate the ASI framework into the policy the following hierarchy could be considered for inclusion as a, b and c of the Policy:
- a) Providing for and concentrating development in locations to minimise travel distances between residential, employment and the location of other essential services in combination with the delivery of multi-modal transport networks and infrastructure¹² to serve developments then;
 - b) Providing for, and concentrating development, within walkable catchments of public transport routes where practicable, and utilising existing space to remove barriers for access to walking, cycling and public transport then;
 - c) Providing new infrastructure or capacity upgrades on the transport network to prioritise walking, cycling and public transport, such as improved or new bus and cycle lanes and measures to prioritise the need of pedestrians, cyclists and public transport above the car.
- 72 Changes to the policy wording would also require some amendment to the policy itself and the explanation to ensure the aspects of the original a, b and c are retained. Suggested update could include:
- District and regional plans shall include objectives, policies, rules and/or methods that optimise transport demand by requiring all new and altered transport infrastructure supporting development to be designed, constructed, and operated in a way that contributes to an efficient transport network,

¹² Includes infrastructure for active modes and low emission vehicles

maximises mode shift, and reduces greenhouse gas emissions by giving effect to the hierarchal approach (in order of priority), by:

Explanation:

- 73 This policy requires transport infrastructure planning (including design, construction and operation) to consider and choose solutions that will contribute to reducing greenhouse gas emissions through applying a hierarchy to all new or altered transport infrastructure that supports an efficient transport network, influences travel demand through ensuring development occurs in locations that can be best served by public transport and other low and zero-carbon transport modes, and supports behaviour change through mode shift from private vehicles to public transport or active modes.

PROS AND CONS OF A DEFINITION: OPTIMISING TRANSPORT DEMAND

Pros

- 74 A definition of 'optimising' in the context of the RMA will provide for strategic consistency with legislation and policy (paragraphs 38-48) that sits outside the resource management regulatory framework but is reliant on land use planning to ensure more efficient and liveable urban forms, and to facilitate infrastructure provision to achieve broader climate change outcomes.
- 75 A definition provides for consistency across the region, this is particularly important given transport networks are viewed and managed on a regional basis. In addition, travel demand management and achieving mode shift is reliant on a network that provides choices, therefore requires regional consistency to facilitate and guide how demand is managed, and infrastructure provided.

Cons

- 76 Including a definition could inadvertently constrain the outcome sought as this would mean that the application of the policy becomes too prescriptive. The options for reducing travel related greenhouse gas emissions are evolving rapidly, both in terms of known developments such as affordability and availability of electric vehicles and broadening utility of those vehicles (range, load carrying ability), but also further undefined disruptive opportunities are likely. Creating a definition of optimisation could inadvertently lead to implicit exclusion of some of these during the lifespan of the RPS (including Change 1).

DEFINITION: OPTIMISING TRANSPORT DEMAND

- 77 While there are valid reasons for not defining 'optimising transport demand', it is considered a definition would be useful to guide the application of Policy CC.1 and provide consistency in the use of the term.
- 78 As discussed in paragraph 23 the use of 'optimising' was intended to embed the hierarchy of the ASI framework, the term therefore reflects different levels, a definition would need to reflect these.
- 79 It is recommended to define 'optimising transport demand' as:
- a) *Influencing demand spatially and reducing trip length then;*
 - b) *Creating choices to travel via sustainable modes and reduce emissions then;*

- c) *Design and build in a way that supports sustainable modes and an efficient transport network.*

DEFINITION: EFFICIENT TRANSPORT NETWORK

80 In guiding investment in transport infrastructure, the GPS on Land Transport is consistent with the purpose of the LTMA, which is: *“To contribute to an effective, efficient, and safe land transport system in the public interest ‘*

81 For the purpose of the GPS the following terms are defined, a land transport system is:

- **Effective** when it moves people and freight where they need to go in a timely manner
- **Efficient** when it delivers the right infrastructure and services to the right level at the best cost

82 An efficient transport network therefore could be defined or used as an explanation if appropriate as:

‘The timely movement of people and freight to where they want to go by multiple modes, through the delivery of the right infrastructure and services in the right location’.

DEFINITION: MAXIMISING MODE SHIFT

83 Mode shift is one way to manage transport demand. The broad scope of transport demand management has been discussed in paragraph 19. To achieve mode shift, there needs to be choices in modes to facilitate how people travel, if travel is needed at all. In the resource management context this includes spatial planning and land use, the facilitation through design and infrastructure provision.

84 A definition of mode shift in the context of the GPS Transport is provided as:

Increasing the share of people’s travel by public transport, walking and cycling.

85 Given the scope of implementation of the policy across the region, and the reason to achieve ‘maximum mode shift’ to reduce greenhouse gas emissions, this definition should reflect the contribution low emission and electric vehicles/ modes have to this outcome.

This could also be used as a part of an explanation if appropriate. As such a definition for 'maximising modes shift' in this context could be:

To make the best use of subdivision, use and development to increase the share of people's travel by public transport, walking and cycling and other low and zero-carbon modes.

DEFINITION: WALKABLE CATCHMENT

86 There is no universally accepted definition of walkable catchments, and this reflects that there are a range of factors that influence, and individuals view on what is walkable (discussed paragraphs 63-67). This applies to their ability to walk, and also the terrain and the conditions on any given day. Some definitions use a 'crow fly distance', others use more complex approaches that rely on network models. However, for the purposes of this process, I would consider that a walkable catchment be defined as:

An area that an average person could walk from a specific point to get to multiple destinations. A walkable catchment consists of a maximum 20 minute average walk.

APPLICATION OF POLICY CC.1: RURAL ENVIRONMENT

87 Throughout the Wellington region there are distinct differences in rural and urban environments, these differences are acknowledged within the RMSP, areas and priorities for mode shift (paragraph 49-58) and highlight the need for different approaches to achieve transport and carbon reduction outcomes. To provide a bit more detail the following considers research from the United Kingdom specific to the rural environment and the application of Policy CC.1 specifically in a rural context to assist with the response to submissions.

[Future of Transport Rural Strategy, United Kingdom- Insights](#)

88 Achieving the outcomes sought by travel demand management in the rural setting requires a different approach than in urban areas. The United Kingdom Government released a Future of Transport Rural Strategy (draft strategy) for consultation in 2021. Responses to the consultation highlighted that reliance on the private vehicles is created due to a lack of

active travel infrastructure between towns, this created an assumption that more development needed to be designed around the private vehicle¹³.

89 The draft strategy considered technological advancement as a key theme that would have the most influence on the promotion of mode shift and travel by sustainable modes in rural areas, this includes changes in the method or type of vehicle (zero or low emission) used for delivery and commercial purposes.

90 The potential for e-bikes to be a viable alternative to a private vehicle received the greatest responses, the key barriers to realising potential was due to the need for infrastructure to support connectivity benefits between and in towns and with key nodes such a railway stations. Integration with land use and community facilities were key in the promotion of multimodal trips. Other key responses related to a lack of electric charging infrastructure in accessible locations to support zero or low emission vehicles. The submissions highlight the key consideration in the promotion of mode shift in the rural environment was the need to provide infrastructure to facilitate the journeys in the first instance to change travel patterns.

Application to transport infrastructure- detailed

91 When considering Policy CC.1 in the rural environment and applying this to transport infrastructure, at a detailed level this could include the widening of a bridge on a state highway. The following paragraph considers the example of a bridge in a rural setting. A case study is provided in appendix D from Dublin, Ireland and summarised below, this demonstrates a more strategic application as a part of new development in a rural setting or on the outskirts of a rural town.

92 An existing bridge located on a state highway has been used by way of an example for application of Policy CC.1. The highway includes space for cycling alongside general traffic, but the bridge reduces significantly on approach and the structure allows only space for two private vehicles to pass. The bridge is a key connector between towns, both acting as key areas of employment and one containing regional passenger rail station.

93 In applying Policy CC.1 an assessment would first consider how the bridge contributes to the reduction in trip length for all modes, giving priority to sustainable modes above the private vehicle. The assessment could then consider if there is an ability to remove barriers

¹³ [Future of Transport: rural strategy – call for evidence - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/future-of-transport-rural-strategy-call-for-evidence)

or reallocate space within the design of the existing structure to provide for travel by modes other than private vehicles. This could consider current and future travel patterns, and if the network is at capacity already if future projections necessitate improvements. This could also require the consideration of the RLTP/LTP and if the project or improvements have already been identified as this would provide alignment with transport investment decisions.

- 94 Where the reallocation of space or removal of barriers is inefficient and a decision to increase the capacity of the bridge is taken, these improvements would need to consider how they facilitate movement for all modes through design. This design should provide a meaningful step up in infrastructure that facilitates movements for sustainable modes ahead of private vehicles, this includes considering the connectivity provided by the bridge and how the design responds to infrastructure beyond the bridge.
- 95 The assessment of the application of the hierarchy contained within the policy should be contained within the assessment included as a part of a resource consent application and demonstrate the iterative process in application and feasibility process considered as a part of scheme development. The active mode infrastructure as a part of the bridge widening provides infrastructure that facilitates safe movements of all modes, therefore promoting travel choices between towns, centres of employment and potentially multi modal journeys where integration is provided for active modes as part of wider initiatives.

Application to transport infrastructure- strategic

- 96 A case study of transport infrastructure provision within a new development in North-West Dublin, Ireland is outlined in appendix D. In the Dublin case study, the innovative approach and collaborative working relationship formed between government entities was fundamental in the design and delivery of the transport infrastructure ahead of residential development. The provision of transport infrastructure that facilitates movement for all modes from the outset helps to establish sustainable travel patterns from the occupation of the residential development.
- 97 The Church Fields Masterplan was led by the need to achieve sustainable travel outcomes and a mode neutral approach. The design provides for segregation of active mode networks that connect to key community facilities, as well as the site layout in an 'urban street pattern' (residential development in blocks, all roads are thoroughfares, a necklace of parks and public spaces thread across the site). This in turn promotes active travel,

reducing walking, and cycling distances and facilitating accessibility and connectivity to other public transport networks.

- 98 In isolation the high-quality design of the roundabout provides another example in a rural setting of transport infrastructure that achieves the outcomes sought by Policy CC.1.

POLICY CC.2 TRAVEL DEMAND MANAGEMENT PLAN

Global insights on travel demand management plans

- 99 In the global examples of Nottingham, Dublin and Ottawa, travel demand management forms a key principle in the planning policy at a local level. Generally, the planning policy incorporates and considers a hierarchy specific for the application of travel demand management through planning permission/ consenting and links transport directly with climate change outcomes. Policy is implemented through transport statements/assessments and travel plans and are often secured through legal agreements tied to the planning permission (resource consent equivalent), where mitigation is required, there is the ability to take development contributions which go towards local improvements in active travel and public transport networks. Where specific infrastructure is identified to mitigate development impact or as a part of a scheme this must be considered in the context of prioritised transport projects that form part of the Local Transport Plan which directs investment in transport infrastructure.
- 100 Thresholds triggering the need for a transport statements/assessment and travel plans apply across a broad range of land uses, covering the number of residential units to commercial floor space based on the trip generation, or location and safety. The Ottawa example provides a five-step process that requires all development to enter the first stage: scoping where triggers are assessed which ensures all projects are strategically aligned with policy regardless of whether they enter the planning/consenting process.
- 101 Specific insights for each location are provided in appendix B of this evidence.

Current methods as part of the consenting process

- 102 Within the Greater Wellington region two district councils are covered by a policy requirement as a part of operative and proposed plans to require integrated transport assessments (full or basic) or transport assessments.
- 103 Wellington City Council's operative and proposed plan includes triggers for integrated transport plans (full or basic), along with the draft Wairarapa Combined District Plan which includes triggers for the provision of transport assessments.
- 104 Generally existing triggers are tied to high traffic generating activities and daily traffic or peak hour traffic volumes. Assessment is focused on the safe, efficient, and effective operation of the transport network, considering accessibility to the site for pedestrians,

cyclists and public transport, the hierarchy of roads and the efficient use of existing infrastructure. Each policy provides slightly different matters for consideration and does not place travel demand management and mode shift as the overarching outcome to be achieved.

Thresholds and implementation: travel demand management plans

- 105 From a transport network and mode shift perspective there is a need to manage demand regionally, this is typically achieved through mode shift targets set at a regional level set out in the Wellington Regional Mode Shift Plan and RLTP (paragraph 49). Further consideration to these targets and carbon emission reduction is also provided in objective CC.1 of Change 1.
- 106 These regional targets however do not take into account connectivity and accessibility of public transport and active travel networks at a local level and would not reflect specific challenges locally. While public transport services are operated at a regional level, land use decisions and infrastructure provision are determined at a local level.
- 107 This necessitates the need for specific thresholds for the assessment of land use and transport infrastructure provision to be developed by local authorities. These can take account of any need or type of land use locally that could facilitate significant mode shift and could align specifically with challenges and opportunities already identified locally. This could include alignment with specific projects that are identified within the RLTP and Long-Term Plan's (LTP), the development of a threshold could be tied to a specific location or land use that where assessment is triggered would require consideration of how the RLTP/LTP project has been considered into the design and would influence the eventual use by people in the location or associated with the specific land use that triggered the assessment.
- 108 An example of the above, could mean that a lower threshold should apply to those residential developments or businesses located within the catchment of the proposed Te Ara Tupua cycle link¹⁴, however what this threshold is set at could be dependent on the proximity of the development to local employment or residential development dependant on the travel patterns observed now and expected in the future of the local authority.

¹⁴ This cycle link is provided by way of example, it is acknowledged that this network is under development over the next 10 years as a part of the RLTP 2021.

109 High level regional thresholds have been proposed in paragraph 120, these could be applied locally by local authorities, and should be in the absence of local thresholds being developed. It is however appropriate and would provide greater benefit for local authorities to develop area specific thresholds as has been discussed. International insights reflect the development of regional triggers however suggest these should only apply in the absence of local thresholds.

Proposed changes to Policy CC.2

110 As discussed in paragraph 34, the interaction between the scope of the proposed travel demand management plans and transport assessments (where required) is not clear. Policy CC.2 supports Policy CC.1 through Policy CC.9, requiring applicants to consider how subdivision, use or development 'optimises transport demand'. Optimising transport demand reflects the three levels of application as:

- Influencing demand spatially and reducing trip length.
- Creating choices to travel via sustainable modes and reduce emissions.
- Design and build transport networks in a way that supports sustainable modes and an efficient transport network.

111 Acknowledging that only certain aspects of travel demand management can be achieved within the context of the RMA (paragraph 59), an alternative term could be considered that lends towards the outcomes that can be achieved within the resource management regulatory context. As discussed in paragraph 18, the intent and application of Policy CC.1 is not to restrict the movement of, or access to certain types of development or modes, but to promote the best use of the transport network to facilitate choice and make it easier to move around.

112 As such the use of travel demand management plans is not truly reflective and could be rephrased to the outcomes sought in the resource management context 'Travel Choices', this term would also align with terminology and strategic outcome sought in the Transport GPS.

113 'Plan' could be termed 'Assessment', this would better reflect the intent to consider and incorporate mitigation as a part of the feasibility and design and provide a means for justification as a part of the assessment. The assessment would be triggered through thresholds discussed in paragraph 120 and would be required alongside the resource

consent application. As discussed in paragraphs 87-97 applying Policy CC.1 in a rural setting, the assessment scope would require applicants to show how the hierarchy contained within Policy CC.1 had been applied, this would demonstrate an iterative process in the application and feasibility considered as a part of scheme development (transport infrastructure or subdivision, use, development).

- 114 Where Transport Assessments are required alongside a 'Travel Choices Assessment' these could incorporate the mitigation measures proposed as a part of the scheme (where required still), and the Travel Choices Assessment scope would provide the justification of how the development of the scheme has considered the hierarchy in Policy CC.1 as a part of scheme development and design. Transport Assessments and Travel Choices Assessment are tools available to territorial authorities, use of these tools aims to avoid further development that would lock in high emissions. While other tools are available to achieve a reduction in greenhouse gas emissions related to transport, such as pricing (e.g., tolls, fuel duty, parking levy) and subsidy (of PT fares for example) these aren't tools normally available to territorial authorities. And so, this policy will provide an additional avenue to allow TAs to have influence in order to lead to a reduction in transport emissions.

Suggested Thresholds for Implementation

- 115 The following provides examples of high-level thresholds that could be applied regionally (in both rural and urban environments), these give the ability for local more challenging thresholds to sit beneath that respond to local needs based on connectivity and accessibility to existing and proposed transport infrastructure (potentially linking with specific projects contained within the RLTP/LTP). Allowing for these more nuanced thresholds to be developed as time goes on.
- 116 High level thresholds offer consistency for application and avoid separating where emissions reduction is required but an Integrated Transport Assessment or Transport Assessment is not.
- 117 The following thresholds have been developed using the Waka Kotahi Planning Policy Manual¹⁵ to provide consistency in the initial application with existing high-level guidance. District plans which include similar triggers have also been reviewed.

¹⁵Guidance on third party land use activities effecting the state highway network, Land use planning 2007, and Integrated transport assessments, 2007 (under review)

118 The link directly to residential zones is deliberate given there is a lot more available infrastructure for residential based trips. Going forward consideration needs to be given to the other end of the trip and the provision of facilities. At the moment this might not be appropriate, but in the future more facilities for zero or low emissions freight and delivery will become available, once this occurs this means it might be more appropriate to apply the thresholds to industrial zones.

119 The thresholds could tie directly to existing zones and measures and the use of walkable catchment and neighbourhood centre is provided by way of example. The use of walkable catchment is intended to directly link to 'Walkable Catchments', a definition for which has been included.

120 Proposed thresholds would apply to a single development as follows:

- 100 residential units located within a walkable catchment
- Commercial development of 2500m² (GFA)
- Greenfield subdivision over 100 residential units

DEVELOPMENT SCENARIOS FOR APPLICATION

121 The following provides an example of the application of Policy CC.1 through Policy CC.9 and Policy CC.2 Travel Demand Management Plan/ Travel Choices Assessment. The application in the rural environment of transport infrastructure has already been outlined paragraphs 87-98.

Greenfield subdivision for residential development over 100 units

122 The threshold would trigger the need to provide a Travel Demand Management Plan/ Travel Choices Assessment and would apply in the same way assessment for transport infrastructure requires justification of the iterative process of the feasibility and scheme development has been through.

123 As Policy CC.9 requires regard 'to whether the subdivision, use and development have been planned *'to optimise overall transport demand, maximising mode shift...'*, as such requiring consideration of the location and accessibility for sustainable modes, barriers, and design; and finally, infrastructure provision to achieve use of sustainable modes and ultimately mode shift.

124 There are two levels when considering the application of this development scenario to Policy CC.1:

- In relation to a plan change the consideration of the appropriate location to rezone for residential or employment zones, this needs to reflect the proximity to existing or planned transport infrastructure and community facilities such as schools and retail, prioritising access by sustainable transport modes.
- At the next level where land has been rezoned, consideration of accessibility and connectivity of the proposed subdivision in relation to concentration around the existing transport infrastructure networks to provide for journeys to be made by walking, cycling or public transport. This might include consideration of proximity to planned and committed transport infrastructure and service improvements through the RLTP/LTP and the timeframes associated with these.
- The proposed design of the subdivision including transport network and if this provides for connectivity and accessibility for pedestrians and cyclists including how residential blocks and the network are designed to create routes that reduce walk and cycle times, improving access to any existing public transport network or

through the provision of a design that would allow a new transport network to operate efficiently. This requires designs to consider the scale of blocks and provision of thoroughfares as a part of the transport network.

- The provision of any infrastructure as a part of the subdivision that facilitates walking and cycling and public transport.

125 Other considerations as a part of the assessment might be parking provisions for private vehicles and how this impacts travel patterns within the subdivision. Given the location and space available it is likely that constraining car ownership would be difficult and as such car parking levels would not be anticipated to form a key part of this assessment. However, consideration could be given to the provision of electric charging infrastructure as part of street light design for example.

Residential units with ground floor commercial and retail in a walkable catchment

126 Key points of assessment would cover:

- Accessibility of the location in relation to the existing transport infrastructure networks that provide for journeys to be made by walking, cycling or public transport. A high level would be assumed given the developments location within a walkable catchment. As the development would include ground floor commercial and retail, this would potentially provide for the reduction in the need to travel for many of the residents, or at least would reduce trips.
- The proposed design of the development including its connectivity and accessibility for pedestrians and cyclists including how residential blocks and the network are designed to create routes that reduce walk and cycle times, improving access to any existing public transport network. This requires designs to consider the scale of blocks and provision of thoroughfares as a part of the transport network, how the development connects with the wider area and any planned connections or stop locations for active modes and public transport.
- The provision of any infrastructure such as safe and practical storage space (with charging facilities) for residents and visitors as a part of the development to facilitate walking and cycling and public transport.

127 Unlike the greenfield subdivision example, given the location of this development within a walkable catchment parking provision would form a fundamental consideration in this

design and assessment, seeking to constrain car ownership. Consideration should be given to the provision of measures that promote sustainable modes as a part of the design and assessment. These might include any proposal to incorporate a car share scheme, low emission vehicle charge points, safe, secure, and convenient end of trip facilities including for e-bikes.

SUMMARY AND RECOMMENDATIONS

Policy CC.1: Intent

129 Policy CC.1 should be revised to recognise what travel demand management measures can be achieved within the context of the RMA. This would include a revised hierarchy that considers how spatial planning, concentration around transport nodes and removal of barriers or reallocation of space, and provision of travel options through infrastructure, facilitates sustainable modes of travel. This would better reflect the ASI framework and Government Policy Statement Land Transport's intervention hierarchy.

130 The following hierarchy should be considered and embedded within Policy CC.1:

- Providing for and concentrating development in locations to minimise travel distances between residential, employment and the location of other essential services sites in combination with the delivery of multi-modal transport networks and infrastructure¹⁶ to serve developments; then
- Providing for and concentrating development within walkable catchments of public transport routes where practicable, and utilising existing space to remove barriers for access to walking, cycling and public transport; then
- Providing new infrastructure or capacity upgrades on the transport network to prioritise walking, cycling and public transport, such as improved or new bus and cycle lanes and measures to prioritise the need of pedestrians, cyclists and public transport above the car.

131 Changes to the policy wording would also require some amendment to the policy itself and the explanation to ensure the aspects of Change 1 Policy CC.1 a, b and c are retained.

132 Policy CC.1 should apply across both urban and rural environments (tier 1,2 and 3), the hierarchal approach is reliant on the need to consider how more efficient and liveable urban form supports mode shift and provides people choices in the way they travel. As such, policy application to only urban areas would not account for how the transport network in rural areas is made more efficient, supports new transport infrastructure or capacity upgrades; or how transport infrastructure is integrated into new growth or greenfield locations, that facilitates mode shift and travel options. A region wide approach

¹⁶ Includes infrastructure for active modes and low emission vehicles

provides for consistency in the way travel demand and mode shift is facilitated and managed.

Policy CC.1: Definition

133 The pros and cons of providing a definition for ‘optimising transport demand’ have been discussed in paragraphs 74-76, while there are valid reasons for not defining ‘optimising transport demand’, it is considered that a definition would be useful to guide the application of Policy CC.1 and provide strategic consistency in the use of the term to achieve broader climate change outcomes. This could also be used as a part of an explanation if appropriate.

134 It is recommended to define ‘optimising transport demand’ as:

- A. Influencing demand spatially and reducing trip length then;
- B. Creating choices to travel via sustainable modes and reduce emissions then,;
- C. Design and build transport networks in a way that supports sustainable modes and an efficient transport network.

Application of Policy CC.1 in rural and urban environment

135 Implementation of Policy CC.1 would be achieved through Policy CC.9 and CC.2 requiring an assessment to demonstrate the iterative process taken in the application of the hierarchy as a part of scheme development. The mandatory assessment as part of the consenting process places a requirement on the applicant and designers to have considered how the transport infrastructure influences why and how people travel through integration with land use and design, or by providing infrastructure that contributes to mode shift and travel choices. Any mitigation measures contained within the assessment could be secured through conditions of consent.

136 Applying Policy CC.1 in the rural environment has been demonstrated through a bridge widening on a state highway and Policy CC.9 through residential development within a walkable catchment and greenfield subdivision. The following considers what assessment of each development scenario might entail; these could be considered as a part of the matters that council would consider when assessing schemes under these policies.

137 **Bridge widening within a rural environment:** Specific to this example assessment application of the hierarchy would:

- Consider how the bridge contributes to reduction in trip length for all modes, if there is an ability to reallocate space or remove barriers within the design of the existing structure. Assessment could consider current and future travel patterns, and if the improvements are included in the RLTP/LTP. Where a decision is taken to increase the capacity, the design should be considered for all modes (prioritising walking, cycling, public transport and then private vehicles), assessment would need to respond to infrastructure beyond the bridge.
- The assessment would need to show how the design provides for a step up in infrastructure that facilitates movements for sustainable modes ahead of private vehicles.

138 **Residential development within a walkable catchment:** Specific to this example, assessment would consider:

- The accessibility of the location in relation to the existing transport network, which is expected to be high given the walkable catchment. Development includes ground floor commercial and retail as such the assessment might consider how this might reduce the need of occupants to travel.
- Further points covered would be in relation to design and how the development provides for connectivity and accessibility for walking and cycling to the surrounding area and to existing transport networks.
- Finally, the assessment would need to take account of transport infrastructure provision on site which might include car share schemes, low emission vehicle charging points (where parking is provided) and safe, secure, and accessible bicycle end of trip facilities, demonstrating how these would be integrated within the design.

139 **Greenfield subdivision over 100 units:** Specific to this example, assessment could be considered in two levels:

- In relation to a plan change the consideration of the appropriate location to rezone for residential or employment zones.
- At the next level where land has been rezoned consideration of accessibility and connectivity of the proposed subdivision in relation to the existing transport

infrastructure networks that provide for journeys to be made by walking, cycling or public transport.

- The proposed design of the subdivision including transport network and if this provides for connectivity and accessibility for pedestrians and cyclists including how residential blocks and the network are designed to create routes that reduce walk and cycle times, improving access to any existing public transport network or through the provision of a design that would allow a new transport network to operate efficiently.
- The provision of any infrastructure as a part of the subdivision that facilitates walking and cycling and public transport.

Maximising Mode Shift Definition

140 Given the scope of implementation of policy across the region, and the reason to achieve 'maximum mode shift' to reduce greenhouse gas emissions, this definition should reflect the contribution low emission and electric vehicles/ modes have to this outcome. As such a definition or explanation for 'maximising mode shift' in this context could be:

To make the best use of subdivision, use and development to increase the share of people's travel by public transport, walking and cycling and other low and zero-carbon modes.

Efficient Transport Network Definition

141 A definition for 'efficient transport network' could be developed to apply regionally and align with the purpose of the Land Transport Management Act 2003 and provide strategic consistency with GPS on Land Transport and HUD GPS. This could also be used as a part of an explanation if appropriate. An efficient transport network therefore could be defined as:

'The timely movement of people and freight to where they want to go by multiple modes, through the delivery of the right infrastructure and services in the right location'.

Walkable Catchment Definition

142 To assist with the use of 'Walkable Catchment' as part of the hierarchy included in Policy CC.1, a definition has been recommended as follows:

An area that an average person could walk from a specific point to get to multiple destinations. A walkable catchment consists of a maximum 20 minute average walk.

Rephrase Policy CC.2 Travel Demand Management Plans

143 Travel demand management plans should be rephased and a term such as 'Travel Choices Assessment' used because it better reflects the outcome sought. An assessment would form part of resource consent documentation and could sit alongside any further detailed transport assessment where required. The Travel Choices assessment would consider design and incorporate mitigation from the outset of scheme development and could be used to justify the scheme against the hierarchy set out in Policy CC.1. Any guidance developed should define the scope of the Travel Choices Assessment in relation to Transport Assessments where they are also required.

Thresholds to implement Policy CC.2

144 Regional thresholds have been proposed, these could be applied locally (for tier 1, 2 and 3 councils) and should be in the absence of local thresholds. It is however appropriate and would provide most benefit for local authorities to develop area specific thresholds reflecting the differences in the way people travel and the accessibility and connectivity to public transport, active mode networks and infrastructure to support low emission vehicles.

145 Thresholds could also be linked with transport infrastructure projects that have been identified within the RLTP/LTP's. Locally developed thresholds are particularly important between urban and rural environments given the approach taken to achieving regional mode shift and carbon reduction targets will differ.

146 The high-level thresholds proposed give the ability for local more challenging thresholds to sit beneath, at this stage they deliberately reflect residential zones but thresholds that apply to further zones could be developed at the most appropriate time reflective of the development of facilities to support industrial uses for example.

147 Proposed thresholds would apply to a single development as follows:

- 100 residential units located within a walkable catchment.
- Commercial development of 2500m² (GFA)
- Greenfield subdivision over 100 residential units.

DATE:

28.07.2023

Duncan Barry Tindall

Technical Director

GHD

Appendices

A-1 Appendix A -Change 1 Policies

Policy CC.1: Reducing greenhouse gas emissions associated with transport infrastructure – district and regional plans

District and regional plans shall include objectives, policies, rules and/or methods to require that all new and altered transport infrastructure is designed, constructed, and operated in a way that contribute to reducing greenhouse gas emissions by:

- (a) Optimising overall transport demand;
- (b) Maximising mode shift from private vehicles to public transport or active modes; and
- (c) Supporting the move towards low and zero-carbon modes.

Explanation: This policy requires transport infrastructure planning (including design, construction and operation) to consider and choose solutions that will contribute to reducing greenhouse gas emissions.

Policy CC.9: Reducing greenhouse gas emissions associated with transport infrastructure – consideration

When considering an application for a resource consent, notice of requirement, or a change, variation or review of a regional or district plan, particular regard shall be given to whether the subdivision, use and development have been planned to optimise overall transport demand, maximising mode shift from private vehicles to public transport or active modes, in a way that contributes to reducing greenhouse gas emissions.

Explanation: This policy requires regional and district councils to consider whether subdivision, use and development proposals have fully considered all options to reduce greenhouse gas emissions as far as practicable.

Policy CC.2 Travel Demand Management Plans – district plans

By 30 June 2025, district plans shall include objectives, policies and rules that require subdivision, use and development consent applicants to provide travel demand management plans to minimise reliance on private vehicles and maximise use of public transport and active modes for all new subdivision, use and development over a specified development threshold where there is a potential for a more than minor increase in private vehicles and/or freight travel movements and associated increase in greenhouse gas emissions.

Explanation: Location suitable development thresholds triggering a consent requirement for a travel demand management plan are to be developed by territorial authorities and should apply to

residential, education, office, industrial, community, entertainment and other land use activities that could generate private vehicle trips and freight travel. Development thresholds should specify the trigger level (for example, number of dwellings, number of people accommodated or gross floor area) where the travel demand management plan requirement applies.

Insert new Method CC.3 as follows:

Method CC.3: Travel demand management plans

Where requested, the Wellington Regional Council will assist city and district councils with determining land use thresholds for triggering a Travel Demand Management Plan requirement, as well as guidelines for a Travel Demand Management Plan that city and district councils can provide to developers to assist them with mitigating the travel movements and associated greenhouse gas emissions arising from new subdivision, use and development.

Implementation: Wellington Regional Council

A-2 Appendix B- Global Insights

Nottingham City Council, United Kingdom

Travel Demand Management forms a fundamental principle in Nottingham City Council's Development Management Framework. This framework is made up to two key documents which are used to determine planning applications for schemes, this includes land use and transport infrastructure. The Core Strategy is underpinned by the hierarchal approach to Travel Demand Management, this approach is supported by transport policies in the Development Plan, which seek to appropriate levels of parking, travel plans for new developments and safeguarding future improvements to the transport network.

Transport assessments are required where development generates significant amounts of movements in line with national direction. Transport assessments include mitigation measures along with travel plans can be secured through legal agreements and planning conditions used to enforce. In addition, legal agreements work to sequence development and infrastructure ensuring this is appropriate.

As a part of any planning application and consideration within the transport assessment the hierarchal approach must be considered, seeking first to reduce the reliance on the private vehicle by locating development in the most suitable locations, minimising congestion and pollution and making best use of existing assets. Delivery of the most sustainable modes of transport is considered first with network management and highway capacity improvements considered as a last resort. Where new infrastructure requirements are identified these must be considered in the context of prioritised transport projects that form part of the Local Transport Plan, this links the planning framework directly to Transport Plans that prioritise transport investment.

The hierarchical approach is contained within the policy and demonstrates travel demand management within the context of what the planning framework can consider, focused on provision to facilitate sustainable modal choice.

Dublin City Council, Ireland

Within planning policy transport is strategically aligned with the climate change chapter noting the key interdependence between achieving sustainable transport outcomes and the ability to achieve carbon emission reductions. The policy acknowledges travel demand management measures and tools which sit outside of the control of planning permissions. This includes recognising the impact proactive traffic management in the city to limit growth in peak hour traffic within a canal cordon has had, this includes implementation of HGV Management Strategy that controls access to the city centre for large HGVs. Controlling vehicle types on the road network has meant that a safer environment is provided for pedestrians and cyclists. Further measures include electric vehicles charging point implementation, and new by-laws to facilitate car clubs.

To reflect travel demand management in the transport policies and objectives the term 'Mobility Management' is used along with travel planning to encourage travel via sustainable means. 'Mobility Management' is defined at both a strategic and detailed level. At a strategic level, this means locating development in the most accessible locations and at a detailed level designing new areas in a way that minimises reliance on private vehicles.

The term is implemented through a hierarchal approach to the consideration of transport users, with pedestrians, cyclists and public transport ahead of private vehicles considered first in the planning of transport provision. Further guidance is given when assessing development applications and considering the most accessible areas, tackling issues holistically to achieve a reduction in pollution and greenhouse gases while maintaining continued economic growth. Policies and objectives encourage growth in transport nodes or along rapid transit corridors, various policies

promote active modes and mode shift through various means including acknowledging the need for vehicles still and implementation of car clubs.

Transport assessments provide a comprehensive review of transport impact of proposed development and travel planning used to implement the mobility management policies. These requires consideration of 'mobility' management and inclusion of this early in design process. These are required for all new or altered development that trigger thresholds related to traffic flow on the existing network including if congestion exists, residential development in excess of 200 dwellings, retail and leisure uses in excess of 1000 m², office education and hospital development and industrial uses. As a part of the monitoring and regulation of the travel plans produced, a Mobility Management unit within Dublin City Council has been set up.

Detailed guidance for the scope of transport assessments and travel plans is provided, this includes a step for scoping of the transport assessment prior to application to the City Council. In addition, the guidance reserves the right for the council to request for developments below thresholds to also provide assessment where there is considered to be an impact.

Ottawa, Canada

The planning system includes a mandatory process for the consideration of transport as part of developments. This includes a five-step process (not all five steps are mandatory) when considering the level of assessment that is required to accompany a development application.

- Step 1: Screening
- Step 2: Scoping
- Step 3: Forecasting
- Step 4: Analysis
- Step 5: Transportation Assessment Submission

Screening (step 1) is mandatory as a part of the feasibility of design and determination of consenting requirements. This step requires consideration of triggers for trip generation, location and design and safety. The trigger met determines the scope of assessment to be included as a part of the planning application. Guidelines require consideration of multimodal level of service and complete streets tools.

Scoping (step 2) is only required where a trigger is met, and requires the identification of the range of analysis required to understand how well the development aligns with policy and objectives and if any modification of the transport network is required to offset development impacts. This step recognises that the scope of assessment will vary considerably dependant on the location, scale and complexity of the development and anticipated network conditions.

Forecasting and analysis (steps 3 and 4) requires the generation of the future transport demand to analysis pre and post development conditions. This includes establishing mode shares currently and in the future. Through analysis alignment between the schemes transport elements and city wide objectives can be identified, this includes evaluation of the scheme post development and consideration of the design. The Transport Assessment Submission (step 5) considers the key elements to accompany the assessment including report, drawings and monitoring plan.

The five-step process ensures that even those schemes that do not meet the triggers give effect to policy and objectives through the initial screening step. As a part of the screening step, where a threshold is not triggered for the development for a full assessment, a short form must still be completed and submitted to the authority. This shows how the feasibility and design of the development has considered impact on transport infrastructure network and included measures within the design.

A-3 Appendix C: Wellington Region Mode Share Report 2020

	TOTAL VEHICLES	TRAIN	BUS	BIKE	WALKING	SHARED AND ACTIVE	WORK FROM HOME	OTHER
Kapiti Coast District	68%	13%	1%	2%	3%	19%	13%	1%
Porirua City	72%	14%	2%	1%	2%	19%	8%	1%
Upper Hutt City	71%	13%	2%	1%	3%	19%	8%	1%
Lower Hutt City	66%	14%	6%	2%	4%	26%	7%	1%
Wellington City	45%	4%	17%	4%	19%	44%	8%	3%
Wairarapa councils	71%	7%	0%	1%	4%	12%	18%	1%
Wellington Region Mode Share	58%	9%	9%	2%	10%	31%	9%	3%

Wellington Regional Mode Share for travel to work in 2018 by Local Council

Source : [Regional mode shift plan – Wellington \(nzta.govt.nz\)](#)

A-4 Appendix D: Case Study Dublin, Ireland

Mulhuddart, Church Fields, Dublin 15



Image sourced Comhairle Contae Fhine Gall Fingal County Council,

[Progress At Church Fields as Link Road and Powerstown Road Safe Routes to School Officially Open | Fingal County Council](#)

The Church Fields Masterplan is described as a ‘infrastructure first’ masterplan, a new development underpinned by integrated sustainable transport network that connects to local amenities such as schools, parks, churches retail and a local major employment hub with over 20,000 jobs. The transport network provided in advance of construction of housing was deliberate to ensure that the design responds and facilitates sustainable travel patterns, establishing these from the outset of residences being occupied.

The high-quality infrastructure provides for all modes and includes a new innovative style of round about that provides a high level of safety and comfort for pedestrians and cyclists and slows down vehicle’s speeds. The link road has been designed in a boulevard arrangement which provides unique opportunities for greening and drainage solutions. A Safe Routes to School programme has also been launched in the area. This programme is an initiative of the Department of Transport and supported by the Department of Education and provides active travel funding and delivery for all schools in Ireland.