Future Development Strategy

Organisations

WRITTEN FEEDBACK
Volume 2

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Future Development Plan 2023 #2966

Note: this version of the feedback form has been created for the purpose of publishing submissions. As such, contact and demographic information has been removed and handwritten submissions have been transcribed.

Your feedback

Focusing growth

Denser, more compact cities result in improvements to the environment, the economy, and people's wellbeing.

Auckland's urban area is made up of neighbourhoods, town centres and business areas that are interconnected and that support where most Aucklanders live, work and spend their leisure time.

We propose that most housing and business growth will be focused within existing urban areas and that this growth be more intensive. This means less growth in greenfield areas at Auckland's edges. What greenfield growth there is will be phased over 30 years and longer.

1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Other

Tell us why

How about growing other cities? NZ is not all about Auckland. By growing Auckland you are making it increasingly unlivable - traffic, parking issues, in suburban streets, infrastructure issues, high rises next to existing properties so blocking out sun causing damp houses etc etc.

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Agree

Tell us why

But it won't help rushhour as people frequently work far from home. Again, grow other cities.

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Other

Tell us why

Weak and wishy washy. Only grow in totally safe areas.

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Agree

Tell us why

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

As above - Auckland is huge enough and we have an enormous amount of catching up to do with infrastructure, just to meet today's needs. Stop growing Auckland. Increase other cities. Make other cities attractive to live in with more amenities.

Future Development Plan 2023 #3020

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1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Agree

Tell us why

Infrastructure costs and loss of green areas too great to spread growth.

Accessible local centres

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We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Agree

Tell us why

Makes sense. Is how I operate now.

Avoiding hazards

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Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Agree

Tell us why

Adaptation to climate change is a must.

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

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4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Agree

Tell us why

Water sensitive design should be mandatory - even for Kainga Ora (government). That is one significant example to me of working in harmony with nature.

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

I found little mention of the Auckland isthmus water problems, with combined sewers an ongoing problem. I trust the strategy will allow investment on waste and stormwater structures to bring these urban areas up to standard of a first world city. Sewage overflows in our parks and rivers are not OK.

Future Development Plan 2023 #3263

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1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Disagree

Tell us why

We need green fields development.

Not every person has a lifestyle suited to living in an apartment or small section.
You are only going to drive up the price of existing stand alone properties as developers scramble to buy them as there is no green fields available.

Accessible local centres

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2. What do you think of our approach to focus development near local centres?

Disagree

Tell us why

The centres and facilities will be one congested and crowded.

Avoiding hazards

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3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

I don't know

Tell us why

Council will only go with the option that saves them spending money.

Resilient infrastructure

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4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Other

Tell us why

Milldale is an excellent example of this. A new purpose designed greenfield development. The rain gardens did their job and worked well during the recent weather events.

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

I do not agree with the halting or reduction of greenfield development until 2050.

Future Development Plan 2023 #3468

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1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Agree

Tell us why

Many more green, warm, and comfortable apartment buildings with great public transport and cycle lanes is the best way forward.

Accessible local centres

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Agree

Tell us why

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Agree

Tell us why

Other feedback

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TOURISM: I suggest that the Waitakere Ranges area finally opens its proposed great walk and becomes a destination for medium/high-end tourism with frequent shuttle busses to train stations on the Western Line. FARMING: Also, it would be great to see a focus on regenerative 'Native Forest Farms' at the fridges of the city to supply native plant produce and fungi to local hotels and restaurants.

Future Development Plan 2023 #3483

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Agree

Tell us why

Urban sprawl is not the answer if we are serious about being climate resilient, stop environmental degradation and ensure that we can sustainably feed ourselves without relying heavily on carbon emissions. It also reduces carbon emissions with more effective transport options and lowers the cost of infrastructure.

Accessible local centres

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2. What do you think of our approach to focus development near local centres?

Agree

Tell us why

Yes I agree. The only consideration is to ensure that there is urban ngahere in these areas and that communities have easy access to parks and green spaces. Green pathways around riparian

margins is a great way to help both community wellbeing, connectivity and also minimise environmental degradation as we face more flooding due to climate change. Buying up areas now that are prone to floods and opening up streams and wetlands in urban areas will help reduce long term implications to climate change.

Avoiding hazards

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3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Agree

Tell us why

It should be a priority within Council to review all areas of Auckland and do a cohesive and holistic blue green spatial network plan for these areas. Highlight the areas that are vulnerable and then create a long-term plan which minimises the risks.

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

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4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Agree

Tell us why

Yes please. Except this isn't happening now. All new infrastructure should be designed this way - except areas such as in Massey, RedHill, Whenuapai are all being built to the maximum building coverage and impermeable surface, with no or minimal nature-based infrastructure

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

Yes I do. I currently live in North-West Auckland in Herald Island. I am part of the Upper Waitemata Ecology Network. For the last 6 years I have been writing submissions on this very thing. Whilst I am grateful for this step in the right direction I feel that what is currently happening with Private Plan Changes and Covid Recovery Fast track Consenting applications that the Future Urban zone is getting butchered without any cohesive framework to hold it. This in part due to the very historic nature of the land - farming and horticulture, where we currently only have 8% (and dropping) tree canopy, no significant wetlands - as all of them have been covered over and degraded waterways. We are currently giving feedback on two Covid submissions - one being 23 hectares of land - 100% impermeable surface with one stream protected with 10m riparian margins - right by an area that is the best spawning site in the Upper Harbour for inanga . The submitter's response for meeting Objective 1 of the NPS - UD was that it was providing large industrial sites - how that meets the social, economic and cultural well-being and our health and safety - now and into the future is beyond me. What we need is leadership - from our local government. To stop central government from undermining the plans we have in place for urban development. We also need all Future Urban zones to have in place a blue-green spatial network plan marked out on the plan prior to any plan changes. We need to have a moratorium on all Private Plan changes and Covid Fast track consenting (and whatever name change it is going through) to allow Local government to adopt not only the NPS-UD but also the National adaptation plan. The local government has a statutory responsibility to ensure that future infrastructure and urban development is climate resilient. Let's make this happen, let's not get bullied by developers who have bought FUZ land. Let's work together to ensure that Auckland is a healthy, vibrant and connected city.

I also do not support the MDRS and Auckland Council's Plan Change 78 necessary response to it . Let's make the one year pause that David Parker has granted us to show this is not the solution for our city. This will just create more issues with the removal of mature trees, sprawling transport issues, not enough green spaces for the growing population and badly planned out urban development. The recent floods have shown how important it is for ensuring that Auckland is a spongy city. Matthew Bradbury has written an excellent book - Water City - practical strategies for climate change. We know what we need to do. Let's get on with the transformational change that is required and stop doing what we have always done. Spend the money now doing it right as we will be spending the money fixing up the messes we are currently creating.

Future Development Plan 2023 #3603

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1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Agree

Tell us why

Speaking as one who 40 years ago bought a house (old and very run down) on the central isthmus we have always had choices as to what Transport modes we use. Even when we had children in the house, we only ever had one car. Today it spends much of the week sitting in the driveway as I work from home, and my wife can cycle into the city. We are close to regular bus services and not for from Onehunga Train station. We are close to doctors, supermarkets and the Onehunga town centre. Because of this we spend very little time commuting or traveling to get to where we go. This enables us to enjoy a good lifestyle. We have family who live in Drury and friend who lives just north of Kumeu. They are totally car dependent and spend a lot of time in their cars, according to them not enjoying them selves. While they had chosen to live where they are, many are forced to live on the outskirts of the city because that is where they can get a house. I would not wish that lifestyle on anyone, particularly families who would have to travel.a.lot to do the things children do. This is why I support your proposal.

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Agree

Tell us why

Many people do jot drive, they are too old or too young, unwell or can't afford to buy or run a car. People should be able to access basic services without being forced to drive or be driven by someone else.

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Agree

Tell us why

Ratepayers and tax payers are ow carrying the cost of decisions made to live in flood prone areas. While risks may have seemed small years ago when these areas were developed, there is no excuse today for building homes in places that are likely to be subjected to negative impacts.of climate change.

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

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4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Agree

Tell us why

Every generation has had to make choices about how much to spend on the design, quality and materials for domestic and public housing and infrastructure. Traditionally we have underspent on such things and have not fully depreciated them as a result of popularist politicians seeking re election by promising.low rates and taxes. The cost of this approach is to continue to load debt on future gnerations. We Ned to not only invest appropriate sums in good, resiliant infrastructure, but to also reduce the emissions that have created the climate change effect we are trying to mitigate.
L

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

Go well, I hope you get the support you need to carry out the suggested courses of action you are recommending.

Future Development Plan 2023 #3623

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1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Disagree

Tell us why

We were promised future urban for our land in Opaheke, Waited 8years and with no consultation its all changed. Our land cannot be used for anything else, and it will be stuck in-between 2 large developments Dury and Papakura.

Accessible local centres

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2. What do you think of our approach to focus development near local centres?

Agree

Tell us why

Avoiding hazards

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3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Disagree

Tell us why

Thats not true, why is Opakeke counted as flooding zone and not Drury.

Resilient infrastructure

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4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

I don't know

Tell us why

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

Future Development Plan 2023 #3786

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Disagree

Tell us why

produce more issues, like traffic, infrastructure, education and so on.

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2. What do you think of our approach to focus development near local centres?

Disagree

Tell us why

create more local center in other areas

Avoiding hazards

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3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Disagree

Tell us why

not escape the issues, should have solution to sort it out

Resilient infrastructure

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4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Disagree

Tell us why

Public infrastructure priority.

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

all change and development should leave urban area for rural are. Focus on high density in urban area will arise security issues and cause the high competition for all resources.

Future Development Plan 2023 #3798

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Disagree

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Disagree

Tell us why

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Disagree

Tell us why

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4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Disagree

Tell us why

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

No evidence to support your proposal is correct. The traffic, parking, school, water, waste water , storm water etc will be a huge problem in Auckland. Please keep all the FUZ as it has fully considered.

Future Development Plan 2023 #3808

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Disagree

Tell us why

'We disagree with the lead statement which we have broken up into its three key elements, 1) environment, 2) the economy and 3) people's well-being, to provide our reasons

1) "Denser, more compact cities result in improvements to the Environment".

This statement is opinion and needs to be proven in the context of-

-New technology and our energy requirements being close to renewable in due course.

-Auckland's existing built form and the true environmental cost of conversion to an intensified city as defined by conventional wisdom.

-Aucklands changing work habits and potential policy initiatives to encourage living close to work.

-The overall negative impact of a growth strategy driving population increases, increasing baseload negative environmental outcomes,

- it reducing the sponginess of the city and resulting in ever-decreasing green space coverage The Envt Commissioner Simon Upton in a recent report noted that "Auckland has lost up to 30 per cent of its green space since the 1980s and nearly all of this is from private residential land. Not all intensification is the same, and the style of infill townhouse development that is currently happening within our cities comes with particular risks for the existing network of urban green space... Green spaces are not afforded the same priority as other infrastructure. Intensification

and climate change will mean that a typical Auckland suburb will be hotter and more prone to flooding in the future."

2)"Denser, more compact cities result in improvements to the Economy."

This statement is opinion and needs to be proven in the context of-

- its potential to lock in housing unaffordability.

It is clear Auckland has very unaffordable housing, and a fixation on intensification will significantly exacerbate this. It is however all about balance. The degree of intensification within the existing Unitary Plan we consider to be a maximum. The mix of increased intensification and greenfields provides substantially more housing availability than is required by the population increase numbers this survey is founded on. Inclusive of central city highrise approx 1,000,0000 dwellings, 4 to 5 times the expected growth.

3) "Denser, more compact cities result in improvements to people's well-being".

This statement is opinion and needs to be proven in the context of-

- the interrelationships of Aucklanders' current and future aspirational housing goals. Recent surveys of first-home buyers and new New Zealanders indicate a significant majority do not want to live in an intensified environment, preferring a discreet home on a section.

- multiple examples of poorly thought out intensification experiments around the globe eventually being pulled down and consigned to the scrap heap.

However if done in a way that makes good quality town planning and urban design sense without forgoing quality outcomes and residential amenities (sunlight access, privacy, decent indoor and outdoor living areas, space for trees and gardens etc) positive well-being outcomes are possible. This will not be the case with the blunt MDRS way of the "one size fits all" approach and some negative elements contained within the NPS-UD.

- fundamental to well-being is having a roof over your head without it driving you into poverty.

It is common knowledge constraining land supply is a major negative influence on housing affordability so on balance the degree of intensification defined in the AUP is preferred to a yet more intensified environment.

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people’s daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Other

Tell us why

As long as this objective is implemented within the parameters of the existing Auckland Unitary Plan then we largely agree (barring some refinement of the AUP). We disagree with the further intensification as forced on the city by the NPS-UD and the MDRS, which are not necessary to achieve the forecasted growth of the city. We do not agree with these objectives if it requires yet more of our existing suburban land area to be consigned to MDRS or greater due to the severe negative impact on the environment and the amenity of existing homes and the consequent negative impacts on existing residents and ratepayers.
It makes sense to focus development around and within easy access to facilities. However, in order to build up, there needs to be thought given to the size of lots and the subdivision pattern. Requiring that lots be amalgamated to facilitate higher development so that the effects on surrounding sites are not negative. Refer the approach taken in North Sydney and NSW for housing intensification.

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Agree

Tell us why
Risk management is a core council function.

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Agree

Tell us why

Seems reasonable.
Dont forget about the trees (see our comments under Focussing Growth)

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

We question the fundamental assumption of the survey as it denies the right of our community to determine its own future. In particular, Aucklander's future population aspirations should underpin this survey, not the pie-in-the-sky statistics New Zealand numbers, subject to the vagaries of various governments mostly irrational immigration policies.

We recommend extensive surveying (using scientifically sound methodology) of the residents of Auckland to establish a population baseline that is reflective of Aucklander's population aspirations, and this information is then the fundamental assumption on which to drive the planning process.

We also recommended the council petition government to stop meddling in the city's planning function. This survey is rendered farcical given the existing forced legal requirements of the NPS-UD and the Intensification Act (Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021). These are soon to be followed up with more pernicious legislation, in the form of the Natural & Built Environment Act further stripping our rights.

The hard cold reality is you as a Council are not determining the future of our city. And, the citizens of the city are so far removed from any autonomy as we sit behind yet another level of ideology held by the Council as evidenced by this survey and the continuation of the Plan Change78 process.

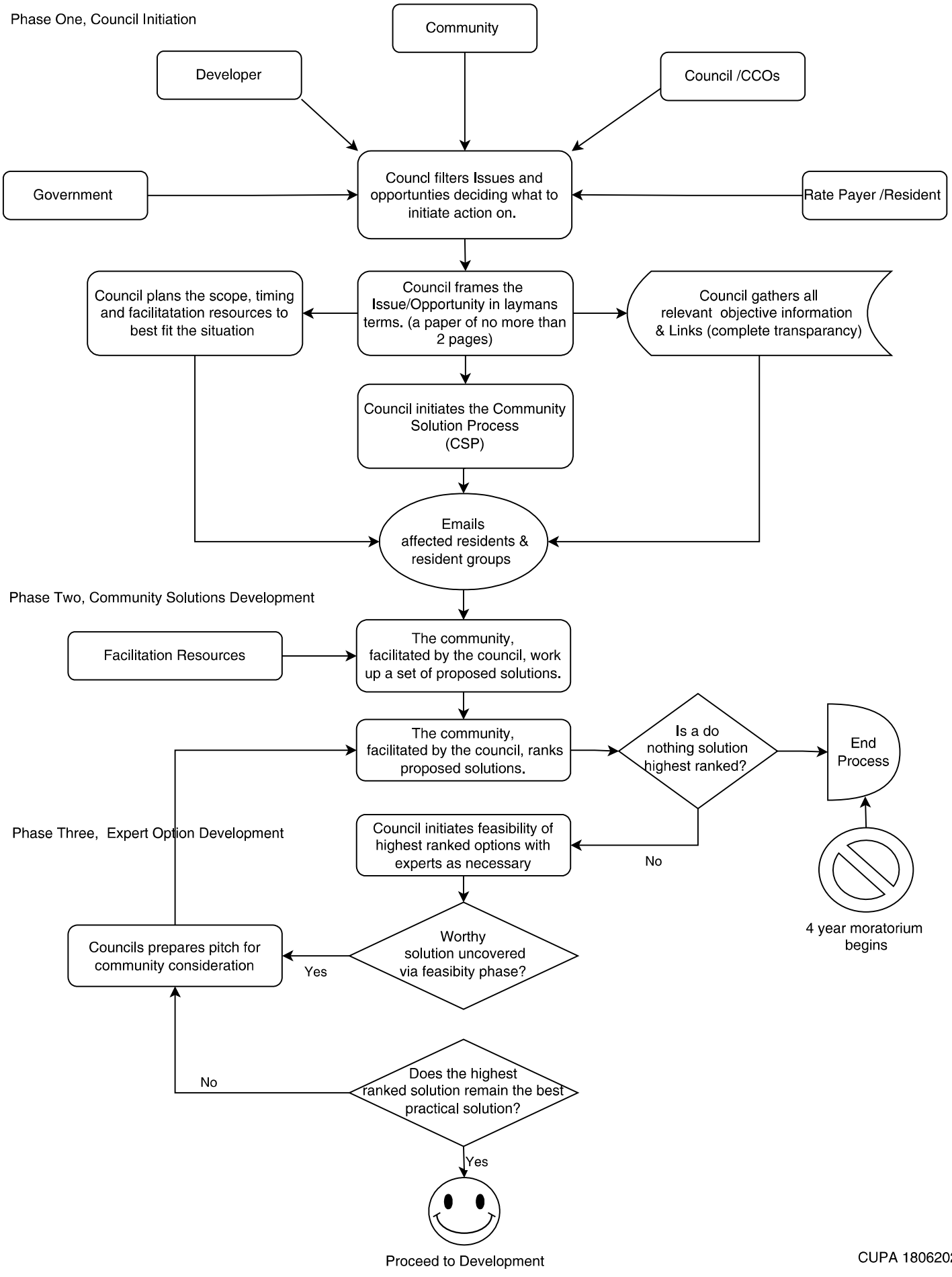
We put it to you that once a community is established those within the community have some right to determine the future of it. We believe this is reasonable and, if you want to do something visionary in this growth space we recommend you start by truly conferring that right.

To that end, we recommend the Council begin by fundamentally changing the consultative process as it pertains to existing communities and that it be ‘community solutions driven’. Refer to the attached flow chart of this proposed process for your consideration.

Lastly thank you for the opportunity to contribute.

#3808

Community Led Development Process Summary , Draft



CUPA 18062023

Future Development Plan 2023 #3952

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Your feedback

Focusing growth

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1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Disagree

Tell us why

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

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2. What do you think of our approach to focus development near local centres?

Agree

Tell us why

Avoiding hazards

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Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Disagree

Tell us why

Resilient infrastructure

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We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Disagree

Tell us why

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

Please see attached document

This submission is made by Endeans Farm Limited (EFL), as the owner of 32 hectares of Future Urban Zone FUZ land in Warkworth South, scheduled under the 2017 FULSS to be development ready in 2028.
EFL opposes the proposal in the FDS to defer development of it's land until 2045. This changes the development horizion from imminent, to more than 20 years away.

1. **Background:**
   EFL was formed in 2005 to purchase an undeveloped 20 hectare grazing block on [redacted]. Subsequent acquisitions of land were made by boundary adjustment and purchase of other holdings at [redacted], bringing a total area of 42 hectares, 10 of which were sold in 2021 to a Joint Venture between Classic Homes and the NZ Super fund (JV).

2. **Historical and recent Council Policy documents:**
   (a) 2012 Auckland Plan "2022 to 2032 – Plan to ensure sufficient land supply and invest to support development of satellite towns"
   (b) 2017 Future Urban land Supply Strategy (FULSS) – "development of Warkworth South 2028-2032"
   (c) 2018- 2050 Development Strategy: "Warkworth Satellite Town to support significant business and residential growth. Warkworth South to be developed 2028 to 2032".
   (d) 2019-Warkworth Structure Plan: "Warkworth South to be development ready by 2028."

   Each of these documents reinforced Warkworth as one of 2 Satellite Towns, the other being Pukekohe also described as rural nodes, and earmarked EFL land as (FUZ)
   The properties acquired by EFL constitute a large majority of the valley west of SH1 and North of Valerie Close. The aggregation of this area would normally be viewed favorably by Council Planners, and indeed was recognized as such in meetings with Council Planners as part of consultation for the Warkworth Structure Plan.

3. **2020 National Policy Statement- Urban Development (NPS-UD)**
   In 2020 in response to a perceived housing shortage, Central Government issued the NPS-UD which encouraged land owners to seek Private Plan Changes. Consequently EFL engaged numerous consultants and embarked on work for a Private Plan Change. In 2021 that process exceeded the resources of EFL and the partial sale to the JV occurred. The JV took over work on the Plan Change, which was lodged with and accepted for processing by Council in January 2023, in conjunction with adjacent property owners to the east of SH1. To date many hundreds of thousands of dollars have been spent on the Plan Change, named "Waimanawa".

4. **Public Open Space**
   The Waimanawa Plan Change is unique in that it enables over 25 hectares of new Public Open Space. This includes 3.6 hectares of new sports fields, informal recreation areas, covenanted native bush and over a kilometre of picturesque Riparian margins along 2 tributaries of the Mahurangi River (depicted in the attachments to this submission). This unprecedented delivery of Open Space will serve not only a rapidly growing Warkworth, but will also benefit residents of existing Auckland Urban areas who will find themselves short of recreation space through intensification in those urban areas.

5. **Planned Development**
   Waimanawa proposes over 1400 houses, a local centre and transport hub. Negotiations have been had for a new school on the flat land within Waimanawa boundaries.

6. **Iwi Consultation**
   Local Iwi Ngati Manuhiri were consulted at an early stage and have given their support and encouragement for the Waimanawa Plan Change.

7. **No Constraints on Development.**
   The FDS defers development in Warkworth South because inter alia "25% of the area is Flood Plain". Whilst it is acknowledged that some of EFL's land is so classified, careful planning has ensured that such land is not used for development, but constitutes in part the generous areas of Public Open Space. To this extent the reasons given in the FDS are misleading. The anniversary weekend floods causing widespread chaos across Auckland had no impact on EFL land. No flooding or damage. This calls into question the reliability of Council flood modeling of EFL land.

8. **Return on Infrastructure Investment**
   Council is spending $123million on the Warkworth Wastewater upgrade, due for completion in 2025. Warkworth is also getting an upgraded Potable water supply. Central Government has spent $880 Million on the recently opened motorway extension to Warkworth. The FDS emphasizes the need to obtain a return on Infrastructure Investments. The development of the Waimanawa Plan Change area is consistent with that goal, and will provide ratepayers with an early return on investment, enabling reduction of debt.

9. **Funding for further Infrastructure**
   The viability of the Waimanawa Plan Change is ensured by the commitment by the NZ Super Fund to invest in Infrastructure connections to Warkworth for roads, footpaths , cycleways, water and wastewater. All of this without any burden on Council finances.

10. **Incorrect Assumptions on commuting**
    Another reason given in the FDS for deferring development in Warkworth South is the foreseeable increase in emissions caused by commuting to Auckland. This assumption is challenged for the following reason: EFL has acquired or developed a total of 17 houses on it's land, all of which are rented to families working locally in the Warkworth community. None of the occupants commutes. These houses provide much needed worker accommodation, which Warkworth is desperately short of. The further development of EFL land will help to meet this continuing and future need.

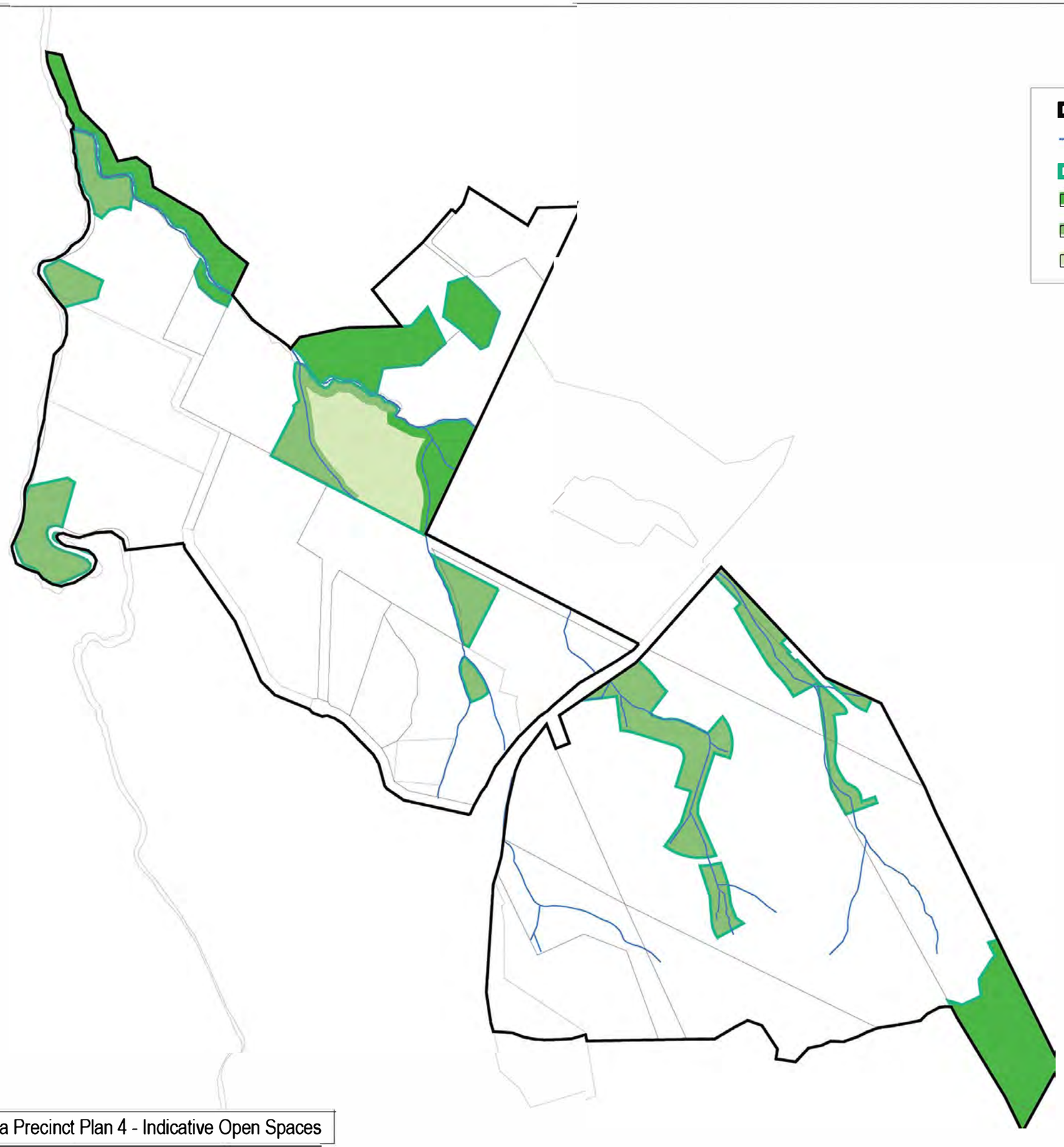
11. **Costs of Development : Brownfield v Greenfield**
    For intensification to occur in existing urban areas, upgrade of infrastructure will be necessary. In-ground works to upgrade stormwater, wastewater, water & roading will be required, all of which will be highly costly in terms of funding and traffic disruption to already busy suburbs.

    Against this, development of Greenfield sites can happen with minimal disruption and arguably less cost.

#3952



#3952



Waimanawa Precinct Plan 4 - Indicative Open Spaces

Future Development Plan 2023 #4038

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Your feedback

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We propose that most housing and business growth will be focused within existing urban areas and that this growth be more intensive. This means less growth in greenfield areas at Auckland's edges. What greenfield growth there is will be phased over 30 years and longer.

1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Disagree

Tell us why

The transportation will still not be sufficient for small houses in urban areas. There will be no car parks and the public transport wont be up to standard

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Agree

Tell us why

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Disagree

Tell us why

During cyclone Gabrielle takanini did not have any floods. Although we fall under a flood area, there has been no physical evidence of this. All the drains were working properly as there has been large development in the area

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

I don't know

Tell us why

It makes sense too. But you can’t be prioritising it, you need to be running it with all the other work

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

We bought a property for charity in order to make a future investment for the community based charity. The zone changing will mean the property value will drop in half and we will find it extremely difficult to survive with a loss of $2 million dollars

Future Development Plan 2023 #4046

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Your feedback

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We propose that most housing and business growth will be focused within existing urban areas and that this growth be more intensive. This means less growth in greenfield areas at Auckland's edges. What greenfield growth there is will be phased over 30 years and longer.

1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Agree

Tell us why

This approach is more sustainable and avoids developing in areas with natural hazards or poor public transport / services.

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Agree

Tell us why

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Agree

Tell us why

Development that is occurring with natural hazard areas is unsustainable, puts people and property and risk and threatens communities.

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Agree

Tell us why

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?



Feedback on Future Development Strategy

1. Introduction

1.1. This document forms part of Kumeu Community Action's (formally known as Kumeu-Huapai Residents & Ratepayers Association Inc) (KCA) submission to Auckland Council on the Future Development Strategy (FDS). The FDS replaces the existing Auckland Plan 2050 Development Strategy 2018 and the Future Urban Land Supply Strategy 2017. It sets forward a high-level vision for accommodating urban growth over the long term and identify strategic priorities to inform other development-related decisions. The FDS identifies spatially where long-term development should occur.

1.2. KCA is consists of residents and ratepayers in the Kumeu-Huapai district. The purpose of our group is to represent the views and interest of residents in the area, with a particular focus on improving infrastructure, public transport, public services and ensuring the coordinated planning and design of development and intensification.

1.3. KCA's interest in the FDS relates to ensuring future urban land is suitably identified in areas that are outside of natural hazards and that can be serviced with the appropriate level of infrastructure required.

2. Matters of Interest to KCA

2.1. Of interest to KCA, the FDS is proposing that Kumeu, Huapai and Riverhead is partially removed from future urban areas due to these areas not being suitable for development. The reasons stated in the FDS for removing these areas include:

- Significant hazard constraints, including approximately 30% of the future urban areas lying within a 1% annual exceedance probability (1% AEP) floodplain.

- Potential for higher vehicle kilometers travelled (VKT) and transport-related emissions compared to other future urban areas, due to distance from high quality existing public transport and services / employment.

2.2. KCA agrees that future urban areas within flood plains should be rezoned to non-residential uses. In the past 18 months, the Kumeu-Huapai and Riverhead areas have experienced three

significant flood events that have resulted in extensive damage to homes and businesses. Avoiding further residential development in these areas in the future is prudent, in light of more frequent and impactful weather events occurring as a result of climate change.

2.3. KCA also supports the removal of future urban areas on the basis of insufficient infrastructure and services to support this growth. The Kumeu-Huapai area is experiencing significant congestion currently, as a result of already-consented residential development occurring without sufficient infrastructure. KCA agrees that allowing development to occur within the future urban areas in the Kumeu-Huapai and Riverhead areas will result in higher VKT and transport related emissions.

2.4. On that basis, KCA **supports** a plan change to remove Kumeu-Huapai (in part) from future urban areas.

2.5. KCA also **supports** the investigation into the appropriateness of future urban areas in Kumeu-Huapai and Riverhead by Auckland Council, in terms of reviewing the natural hazard risks that are present and the current issues in the area regarding traffic congestion and infrastructure short-falls.

3. Conclusion

3.1 KCA supports the removal (in part) of future urban areas in Kumeu-Huapai and Riverhead for the reasons stated above.

Your sincerely,

[redacted]

[redacted]

Chairperson – Kumeu Community Action (Kumeu-Huapai Residents & Ratepayers Association Inc)

Dated 29 June 2023

Future Development Plan 2023 #4058

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Your feedback

Focusing growth

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1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Disagree

Tell us why

Current infrastructure is not able to handle the capacity

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Disagree

Tell us why

New development has its own town centre. There are opportunities

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Disagree

Tell us why

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Disagree

Tell us why

See

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

Future Development Plan 2023 #4086

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1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Other

Tell us why

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4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Other

Tell us why

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

Please see written submission attached. Thanks

#4086

metlifecare

[redacted]

30 June 2023

By Email: futuredevelopmentstrategy@aucklandcouncil.govt.nz

Attention: Future Development Strategy

[redacted]

Feedback on the process used to prepare and publicly consult on the Draft Future Development Strategy

1. Introduction

1.1 Metlifecare New Zealand Limited (**Metlifecare**) wishes to provide feedback regarding the process involved in preparing the Draft Future Development Strategy document (**FDS**) which has been made available for public consultation.

1.2 Metlifecare was established in 1984 and is a leading owner and operator of retirement villages in New Zealand. Metlifecare currently owns and operates a portfolio of 36 retirement villages and 18 care centres located predominantly in New Zealand's upper North Island. Metlifecare provides rewarding lifestyles and outstanding care to almost 7,000 New Zealanders.

1.3 Metlifecare has a significant presence in Auckland with 20 existing villages, an additional three retirement villages currently under development (at Whenuapai, Pukekohe, and Clevedon) and more than 1,900 new retirement living and aged care units planned for completion throughout the Auckland region in the next ten years.

1.4 Metlifecare is providing feedback on the substantive issues in the FDS. However, Metlifecare is concerned with the process followed to prepare and consider submissions on the FDS and is providing this letter in addition to our more substantive comments on the content of the FDS.

1.5 Metlifecare considers that the process followed by Auckland Council to prepare and consult on the FDS does not comply with the requirements in the National Policy Statement on Urban Development 2022 (**NPS-UD**) or the relevant provisions in the Local Government Act 2002 (**LGA**). For the reasons explained below, Metlifecare strongly seeks:

(a) that the FDS is withdrawn and reconsidered; and

(b) that a public hearing is held after the reissued FDS is released for consultation.

2. Further consultation and engagement is required before the FDS is released for public consultation

2.1 Under clause 3.15 of the NPS:UD, the Council is required to engage with a range of parties to prepare a draft FDS, including other relevant councils, central government, hapū, and iwi, infrastructure providers, and the development sector. The broader requirements in Policy 10 require the Council to "engage with the development sector to identify significant opportunities for urban development". Engagement with the development sector is also required to identify infrastructure requirements.

2.2 The Council has not complied with its requirements under clause 3.15 of the NPS:UD and Policy 10. Limited information provided by the Council indicates that:

(a) a survey was sent to property developers on the Council's database to understand developer trends and future intentions[1]; and

(b) the Council engaged with The Property Council.

2.3 Metlifecare is a key part of the development sector, and a recognised developer in the Auckland region, but it was not sent a survey or provided an opportunity to engage or contribute to the FDS. Metlifecare is unable to identify any property developers who were surveyed by the Council. It does not appear that the Council surveyed a large proportion of developers in Auckland.

2.4 In any event, a survey seeking to understand trends and intentions of developers is not sufficient engagement and consultation on the FDS. A survey only provides an opportunity to comment on the specific questions posed by the Council. It does not appear that the Council provided information with the survey to comment on.

3. The process that has been followed does not comply with the requirements in the NPS:UD and the FDS should be withdrawn and reconsidered

3.1 An FDS spatially shows:

(a) how Auckland Council intends to achieve 'well-functioning urban environments', and

(b) how and where it will provide 'sufficient development capacity' to meet future growth needs over the next 30 years.

3.2 An FDS will be used to:

(a) inform long term plans, including the long-term plan to be prepared in 2024;

(b) set out the development infrastructure and additional infrastructure required and how to integrate planning, infrastructure and funding decisions;

(c) influence and dictate the areas and form of growth; and

(d) determine the infrastructure which will be provided to support that growth.

3.3 The FDS therefore has significant implications on developers considering purchasing land and those with existing assets.

3.4 Consultation and engagement is a fundamental part of preparing an FDS, and part of the reason that the process for creating such a strategy is incorporated into the NPS:UD. Metlifecare is concerned that Auckland Council's approach is unfair and unreasonable because the identification of strategic priorities will have significant impacts on the areas within Auckland that are enabled for growth and Metlifecare has been provided limited opportunity to be involved or provide feedback.

3.5 Metlifecare seeks that the FDS is withdrawn and reconsidered following proper initial consultation with the development sector.

[1] We understand that this survey was sent to people who have recently lodged a building consent with the Council.

4. The Council must hold a hearing to allow the public to present their views as required by the LGA

4.1 When preparing or updating an FDS in accordance with clause 3.15 of the NPS:UD, local authorities must use the special consultative procedure in section 83 of the LGA.. Section 83(1)(d) of the LGA provides that the Council must provide an opportunity for persons to present their views to the local authority in a manner *that enables spoken interaction* between the person and the local authority ...".

4.2 Based on the information available on the Council's website, the Council is proposing to make changes to the FDS in response to written feedback and adopt the FDS in late 2023 without holding a public hearing. This approach is entirely inconsistent with the LGA.

4.3 The special consultative process is generally applied to matters that have high significance to the community and may have major implications. As set out above, the FDS will have a material impact on growth and development in the Auckland region. Developers, and the public generally, deserve to have their concerns heard and understood. This right under the LGA has been recognised in other regions across New Zealand including in Nelson (where hearings were held in April 2022 on its FDS) and Rotorua (where a hearing is scheduled for August 2023).

4.4 Metlifecare requests the Council schedules a hearing on the FDS in accordance with the LGA to enable *all persons* who provided feedback with the opportunity to be heard (as required by section 83(1)(d) and (e) of the LGA).

4.5 If you have any queries in relation to this letter, please let us know.

Yours faithfully

Metlifecare Limited



Future Development Plan 2023 #4103

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Your feedback

Focusing growth

Denser, more compact cities result in improvements to the environment, the economy, and people's wellbeing.

Auckland's urban area is made up of neighbourhoods, town centres and business areas that are interconnected and that support where most Aucklanders live, work and spend their leisure time.

We propose that most housing and business growth will be focused within existing urban areas and that this growth be more intensive. This means less growth in greenfield areas at Auckland's edges. What greenfield growth there is will be phased over 30 years and longer.

1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Agree

Tell us why

We support your proposal that that " most housing and business growth will be focused within existing urban areas". This is important to enable areas of countryside be retained for food production, conservation and recreation including access to the coast. Regional parks can play an important part in all of these already being one of the largest farming operations in the region. At present many parks are only accessible by private transport and not available to many of the region's population.

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Other

Tell us why

Agree people should “have easy access to workplaces, services, facilities and shops, communities to become more resilient and connected. It also helps to reduce travel time, emissions, and lower household transport costs.” However greater emphasis is needed to enable easy access to public green spaces i.e. small parks within sight of where people live and neighbourhood parks less than one km from where people live.

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Other

Tell us why

Agree with your statements e.g. that “..known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate”. More decisive action is needed to constrain and stop development in such areas after robust public consultation. Such areas should be returned to nature or agriculture or food production and this is where parks can play a role.

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Agree

Tell us why

We agree that... “Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.” We need infrastructure such as “rain gardens, swales, and detention basins” These water and flood retention areas, proposed by Council, can become green parks. However such areas will need a new economic financial system for aquisition. Maintenance will also be large to enable a anthropocenic "novel biodiversity" to develop. This will take many decades. On the other hand private sector horticulture and agriculture could help. What ever way it will demand fundamental opertional change such developing a large supervising ranger service working with the community.

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

The Friends of Regional Parks believe regional parks need to be an important part of the regions infrastructure to meet the nature based solutions within the future development of Auckland. We cannot geo-engineer ourselves out of all the human demands on the land water and sea. We need simple solutions to live with nature.

Discussion needed on more visionary futures such as:

1/ The OpenSpace, Sport and Recreation Policy Review being worked on by staff needs to be speeded up and put out for public discussion.

2/ Far more ability for community volunteers to work on their local structures, environment and parks with more professional guidance from a larger ranger service based on international standards.

3/ Have more visionary plans such as the 3/30/300/3000 proposal. See attached

4/Speed up the implementation of teh Regional Park Managemtn Plan in a way it supports and is compatible with the Future Development Strategy

4 simple rules or guidelines for the health, well being and environment for a growing city. Ratios may vary but it's important a principle is adopted and followed.

b]

b]

b]

a]

NOTES

a] From a public transport / walk trail to Mutukaroa Hamlins Hill trial by Friends of Regional Parks 11, 07, 21

b] From Professor Cecil Konijnendijk van den Bosch the Director of Nature Based Solutions Institute and Program Director (Urban Forestry Leadership) at the University of British Columbia.

https://iucnurbanalliance.org/promoting-health-and-wellbeing-through-urban-forests-introducing-the-3-30-300-rule/

https://www.newsroom.co.nz/ideasroom/new-housing-policy-runs-risk-of-urban-slums

https://www.newsroom.co.nz/first-learn-to-walk

https://www.yardstickglobal.org/projects/parks

Future Development Plan 2023 #4869

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Your feedback

Focusing growth

Denser, more compact cities result in improvements to the environment, the economy, and people's wellbeing.

Auckland's urban area is made up of neighbourhoods, town centres and business areas that are interconnected and that support where most Aucklanders live, work and spend their leisure time.

We propose that most housing and business growth will be focused within existing urban areas and that this growth be more intensive. This means less growth in greenfield areas at Auckland's edges. What greenfield growth there is will be phased over 30 years and longer.

1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Agree

Tell us why

Reducing the urban sprawl and allowing infrastructure and services to catch up and concentrating on development in established urban areas rather than greenfields makes basic common sense

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Agree

Tell us why

Common sense and community building

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Agree

Tell us why

The flooding in west Auckland and slips are a prime example of the pressures of the housing market creating the wrong planning decisions being taken

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Agree

Tell us why

Sound common sense

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

The value of public recreational parks and facilities can’t be underestimated with the numerous impacts both positive when provided and negative when not developed .

The example of the Huapai Recreation reserve which now services an ever growing population who use it for sport, excercise , recreation,with all the growth of the area no new park of significance is planned, only small “green rest stops” are being developed.

In a climate where the mental health of the population should be a priority as the associated benefits are huge and far reaching this is not being addressed due to what appears to be to financial constraints??

Future Development Plan 2023 #4890

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Your feedback

Focusing growth

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Auckland's urban area is made up of neighbourhoods, town centres and business areas that are interconnected and that support where most Aucklanders live, work and spend their leisure time.

We propose that most housing and business growth will be focused within existing urban areas and that this growth be more intensive. This means less growth in greenfield areas at Auckland's edges. What greenfield growth there is will be phased over 30 years and longer.

1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Disagree

Tell us why

The concentration of too many people, poor infrastructure does not provide good outcomes for those who have no choice on where they would like to live. There is a place for the compact urban form, however this urban environment does not suit everyone. We need to provide good choices that will accommodate others who do not seek to live in the city but would prefer to live on the fringe of major urban centres like Pukekohe.

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Disagree

Tell us why

If transport options are not provided to the fringes of the city then again peoples choices are being diminished. Not everyone wants to live in a built up urban area, and is happy to travel and work on the fringe of the city. Again concentrating people, poor infrastructure, transportation option in only established city/urban environments undermines the housing and livestyle choices of the broader community,

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Agree

Tell us why
This will allow people the opportunity to move out of those concentrated urban areas and perhaps look at residing on the urban fringes in settlements like Pukekohe.

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Agree

Tell us why
Land based on the urban fringes provide a great opportunity for Green infrastructure to be constructed. There is sufficient space to enable Green infrastructure to be part of any development. This would be of particular importance to any development that discharges into the Manukau Harbour. Pukekohe would benefit greatly from this type of development allowing for

land to be used for people to live on, food to be grown for their own consumption while ensuring discharges into waterways and eventually the Manukau Harbour are free of sediments and other contaminants that pollute and kill marine and aquatic flora and fauna.

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

We own Lot_ _____ (__ in green Map_) and Lot_ _____ (__in green Map_). I would like to see these Lots rezoned as part of this Review to Country Lifestyle to allow them to be developed for residential purposes. On 3 November 2015 we submitted on the Auckland Unitary Plan and asked that our properties be allowed to be developed for residential purposes. Our land was zoned Mixed Rural which meant any future development was not possible and our land was in effect made inert. We would like send in our submission again to support that our land is rezoned as part of this Plan Change process to enable it to be available for subdivision for residential activities . It can either be Rual Residential or Future Urban. We believe that this will provide an opportunity for people to have a choice on how they want to live and that they have other options available to them. We see these types of developments being attractive to a more mature demography or professionals who are able to work remotely who want a less complicated and crowded lifestyle.

Future Development Plan 2023 #4903

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Your feedback

Focusing growth

Denser, more compact cities result in improvements to the environment, the economy, and people's wellbeing.

Auckland's urban area is made up of neighbourhoods, town centres and business areas that are interconnected and that support where most Aucklanders live, work and spend their leisure time.

We propose that most housing and business growth will be focused within existing urban areas and that this growth be more intensive. This means less growth in greenfield areas at Auckland's edges. What greenfield growth there is will be phased over 30 years and longer.

1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Agree

Tell us why

I think this approach of focusing most of Auckland's growth within existing urban areas is an excellent plan, especially from an environmental, social and financial perspective.

Firstly, from an environmental standpoint, a more dense urban population can significantly reduce per capita greenhouse gas emissions. This is largely due to shorter commutes and the ability to walk or use public transport more frequently, decreasing the reliance on private vehicles. Moreover, using existing urban spaces helps to preserve the natural environment, reducing the urban sprawl that can endanger wildlife habitats and contribute to the loss of valuable greenfield areas.

From a social perspective, denser cities often lead to increased access to amenities such as restaurants, shopping, parks, and cultural institutions, which can enhance the quality of life for residents. Furthermore, compact cities tend to encourage more social interaction and community engagement, contributing to a sense of belonging and wellbeing.

From a financial perspective, focusing development in existing urban areas can lead to substantial cost savings. It's more cost-effective to make use of existing infrastructure, such as roads, water, and sewerage systems, rather than building new ones on the city's outskirts. This can result in a significant reduction in municipal costs, allowing more funds to be invested back into the community in terms of improved services and infrastructure.

In conclusion, I believe your approach is not only beneficial but essential for sustainable urban growth. By focusing development within existing urban areas, we can create a future for Auckland that is both environmentally friendly and economically sustainable, while also improving the quality of life for its residents

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Agree

Tell us why

I believe your approach of focusing development near local centres is a well-considered and beneficial strategy. There are numerous reasons why this concept would be beneficial for the community.

Firstly, proximity to local centres can significantly enhance the quality of life for residents. When services, facilities, and shops are within walking distance, people can save time and money that would otherwise be spent on commuting. This also encourages physical activity, which has a positive impact on people's health and wellbeing.

Secondly, this strategy would likely promote a greater sense of community. By focusing development around local centres, you're creating hubs where people can gather, interact, and form connections, which can foster a stronger sense of community and belonging.

Moreover, the environmental benefits of this approach are considerable. By encouraging walking, cycling, and the use of public transport, we can help to reduce greenhouse gas emissions and improve air quality. This is particularly important in light of global climate change concerns and the need for sustainable urban development.

Finally, from an economic perspective, focusing development near local centres can stimulate local businesses. Increased foot traffic often leads to increased business activity, which can support economic growth and job creation within the community.
In conclusion, I think your approach is not only sensible but also sustainable, as it takes into account the social, economic, and environmental aspects of urban planning. This kind of strategy will likely lead to more resilient, connected, and vibrant communities.

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Agree

Tell us why

I wholeheartedly support this approach of avoiding further growth in areas exposed to significant environmental hazard risks. It is crucial to recognise and act upon the potential dangers of climate change, and your approach does just that.

Firstly, planning and developing with the environment in mind is not only a responsible decision, but it also helps safeguard the well-being of residents. By avoiding areas known for natural hazards, we can significantly reduce the risk of potential loss of life and property.

Secondly, it's financially prudent. Developing in high-risk areas could potentially result in extensive damage costs in the future, which are far greater than the immediate costs of adapting to climate changes and taking preventive measures. Investing in more sustainable, lower-risk areas can provide a better long-term economic return.

Additionally, this approach demonstrates a commitment to proactive, forward-thinking planning. By acknowledging the reality of climate change and the increased frequency and severity of natural disasters, we can start to build more resilient and adaptive communities. This means not just looking at where we're building, but how we're building too - making sure our buildings and infrastructure are designed to withstand extreme weather events.

Lastly, this approach can contribute to preserving New Zealand's unique biodiversity. Often, areas prone to environmental hazards also host delicate ecosystems that could be severely affected by human development. By avoiding these areas, we can help maintain the balance and health of our local ecosystems.

In conclusion, I applaud your responsible and forward-thinking approach towards urban development. The strategy not only secures a safer, more sustainable future for residents but also ensures we are acting as careful stewards of the environment we inhabit.

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Agree

Tell us why

I'm enthusiastically supportive of your approach to prioritising nature-based, regenerative, and mauri-enhancing infrastructure. It's a forward-thinking and holistic perspective that not only meets the challenges of our changing world but also aligns with the values of manaakitanga and kaitiakitanga – a core part of our Aotearoa New Zealand heritage.

Utilising nature-based solutions like rain gardens, swales, and detention basins provides multiple benefits. These features not only help manage stormwater and reduce flood risks but also create habitats for local wildlife, contribute to the beauty of our neighbourhoods, and improve the overall health of our ecosystems.

This type of green infrastructure is inherently resilient and adaptable, making it well-suited to cope with the evolving impacts of climate change. As weather patterns become more unpredictable, these natural systems can absorb and respond to changes in a way that traditional infrastructure often can't.

Prioritising such infrastructure can also lead to significant economic savings in the long run. While the upfront investment might sometimes be higher, the ongoing maintenance costs are typically lower than for conventional infrastructure. Additionally, these systems provide essential ecosystem services, such as water purification, carbon sequestration, and temperature regulation, that would be expensive to replace with man-made solutions.

Emphasising regenerative and mauri-enhancing infrastructure aligns with our responsibility as kaitiaki (guardians) to preserve and enhance the mauri (life force) of the natural environment for future generations. It recognises that our wellbeing is interconnected with the health of our environment.
In conclusion, your approach offers a sustainable, practical, and culturally meaningful path towards building a resilient and adaptive Auckland. It's a vision I fully endorse and look forward to seeing implemented.

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

Taking all of the above into account, I think it's important to highlight a few key points that underline the effectiveness of the proposed approach towards urban development in Auckland.

Firstly, the emphasis on denser urban housing can lead to more efficient use of resources, reducing our environmental footprint, fostering vibrant communities, and making better financial sense due to the utilisation of existing infrastructure. having lived in high density cities like Tokyo and Seoul myself for many years, high density developing can lead to vibrant, safe and commercially attractive opportunities.

Secondly, the focus on development near local centres can further enhance the quality of life for residents, lead to increased business activity, and contribute to greenhouse gas reduction by encouraging more walking, cycling, and public transit use.

Thirdly, the mindful approach of avoiding development in areas exposed to significant environmental hazards will ensure a safer, more sustainable future for residents while also providing a more economically sound strategy in the long run.

And finally, the plan to prioritise resilient, nature-based infrastructure is a significant step towards a more sustainable and resilient Auckland. It shows a commitment to innovative, environmentally sensitive solutions that can handle the impacts of climate change while restoring and enhancing the health of our natural environment.

These strategies, when integrated, can lead to a more sustainable, resilient, and liveable city. This holistic, forward-thinking approach is the cornerstone of a sustainable urban development strategy and holds great promise for Auckland's future.

In addition, effective communication and engagement with the community and Māori will be key. It's important to provide education and awareness about these plans, listen to community feedback, and ensure that everyone understands the benefits and reasons behind these strategies. Moreover, effective collaboration with iwi, government agencies, and other key stakeholders will be crucial for the successful implementation of these plans.

Overall, these strategies put Auckland on the path to joining world leading, attractive and liveable cities and sustainable urban development. It's an exciting and promising future for our city. Thanks you for seeing what has worked in many of the best cities abroad and allowing it to happen here.

Future Development Plan 2023 #4925

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Your feedback

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We propose that most housing and business growth will be focused within existing urban areas and that this growth be more intensive. This means less growth in greenfield areas at Auckland's edges. What greenfield growth there is will be phased over 30 years and longer.

1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Tell us why

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Tell us why

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. **What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?**

Tell us why

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. **What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?**

Tell us why

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

Wai-o-Taiki Nature Reserve was opened by Sir Peter Scott founder of the World Wildlife Fund in c1979.

During the year one can see 57 different varieties of birds in the area. A mix of seabirds, waders and forest birds.

What is the current state of the Wai-o-Taiki Nature Reserve?

SHUT. CLOSED TO THE PUBLIC.

Why? Erosion. The successful seawall was started but never finished.

Work stopped midterm and even rocks meant for the wall were left in the sand!

Subsequently the path through the reserve fell into the sea!

Both Council and the Local Board have done nothing!

Aucklanders are prevented from experiencing a greater abundance of nature closer to the city than in other nature reserve.

With a proposed increase in housing for 20,000 people in the area, the opening of the Reserve by completing the wall and creating the path will give the new locals, visitors and current residents a gem to be cherished for life.

The intention for the Founder of the World Wildlife Fund will be achieved.

So "Futuredevelopmentstrategy" before starting something new, please complete the wall and reinstall the path responsibly.

Photos

Spoonbills in tree in closed Reserve beyond my garden in Silverton Avenue.

Rocks left in sand when wall work stopped.

.

State of the path. Your appalled staff member and her equally appalled contractor in photo.

#4925



#4925


#4925

Future Development Plan 2023 #4929

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Your feedback

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1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Tell us why

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Tell us why

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. **What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?**

Tell us why

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. **What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?**

Tell us why

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

Kia ora Auckland Council

This Submission on Auckland Council Future Development Strategy is written by Mike Potter CEO of Disability Connect Incorporated based in Penrose Auckland on behalf of our 3800+ disabled people and their families who are our membership.

1. Auckland's disabled people, their families and whanau, have moved to cheaper rentals in places like Waiuku, Pukekohe, Warkworth, Puhoi, Helensville over the past 10 years based on our data. Identified centres for upgrade are nowhere near these places. This is inequitable. Strategic planning should include investment in accessibility in the areas disabled people are moving to and ensure accessible transportation options are prioritised connecting disabled whanau with the upgraded centres.

2. We welcome accessibility in the plan, but this is meaningless for disabled people and their families without clearly stating a level of Universal Design that infrastructure will be built to.

Would prefer at least level 5 Lifemark Universal Design Standard written into the Strategic Plan to ensure accessibility is clearly understood, affordable and meaningful.

3. Disabled people want to live in accessible communities suitable for intellectual, sensory and neurological disabilities. Infrastructure Strategy is light on detail in this area. This is inequitable. Strategic Infrastructure Plans can’t deliver on accessibility without including barrier free audits as a guiding hand in both the design and construction phases of infrastructure development.

Warmest Regards

Mike

Future Development Plan 2023 #4930

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Your feedback

Focusing growth

Denser, more compact cities result in improvements to the environment, the economy, and people's wellbeing.

Auckland's urban area is made up of neighbourhoods, town centres and business areas that are interconnected and that support where most Aucklanders live, work and spend their leisure time.

We propose that most housing and business growth will be focused within existing urban areas and that this growth be more intensive. This means less growth in greenfield areas at Auckland's edges. What greenfield growth there is will be phased over 30 years and longer.

1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Agree

Tell us why

Let's intensify the inner-city area. I'm against Greenfield developments and urban sprawl.

If we can encourage people to live in the inner City area, we will have a City that we can be proud of.

At the moment the City is not a place to go to in the evenings. It's filled with crime and is not a safe place for a stroll in the evening.

This is due to the fact that inner city workers can't wait to get out of there as soon as work has finished and they go home to the outer areas of Auckland.

This causes massive traffic congestion in the mornings and evenings. We need to reduce this traffic so we can reduce our Carbon Emissions.

We need to try and stop this behaviour by making our city a better place to live.

Stop all green field developments.

We are in Dairy Flat and there is currently a plan to develop a village here along with a RTC that will go right through all the beautiful farmlands.

The Dairy Flat Village is planned in an area that has had significant flooding this year.

Its low-lying flood prone land and now there are plans to use it for housing. This is crazy.

It only encourages more traffic in and out of the city and it isn't good planning with Climate Change needs in mind.

The RTC is planned to go along the best ridge of land in Dairy Flat. It will mean that the best land is used for roading which is shocking.

If there really is a need for a RTC then use the corridor alongside the existing motorway instead of a meandering route along the farmland. This won't be a Rapid Route, it will be just another bus route.

Please abandon the Greenfield developments, lets reduce Carbon emissions by intensifying the inner City, Lets protect the natural environment by not allowing RTC through our best Greenfields.

I strongly oppose the Dairy Flat development and would like to see this area maintained the way it is at present with housing intensified in the City where the infrastructure is already in place.

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

2. What do you think of our approach to focus development near local centres?

Tell us why

Avoiding hazards

As our climate changes, the frequency and severity of hazards such as flooding, sea-level rise and coastal erosion will worsen. Where and how we plan for growth, and how we adapt to these hazards is increasingly important.

We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Tell us why

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Tell us why

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

Future Development Plan 2023 #4940

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Your feedback

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1. What do you think of our approach to focus most of Auckland's growth in existing urban areas?

Agree

Tell us why

I support the proposed FDS in general. I believe the proposed FDS would provide much needed clarity for the proposed green field developments and the proposed PC78, given the context of issues such as Special Character Overlay and walking distance catchment etc. in PC78 process .

However, I do believe that following areas could be technically improved:

1. Spatial extent of identified spatial priorities areas:

I note that these identified priority areas are similar size in terms of spatial extent. In particular, the City Centre is slightly smaller than Mount Roskill, westgate, Mangere etc. How come the identified city centre priority area, the ultimate destiny of transit hub, employment centre and commercial hub Which combines the current CBD+ Newmarket Metropolitan Centre would be smaller in spatial extent than that of Mt Roskill, or Mangere, or Albany or Westgate? Neither Mt Roskill nor Mangere is transit hob or employment centre. Westgate and Albany are remote employment centres and have much less magnitude than that of the City Centre. This makes no logical sense at all. They surely are not at the same level of importance. I believe that the hierarchy relationship should be reflected in the spatial extents i.e. the City Centre area could be lightly expanded along arterial roads while other spatial priority areas should be significantly reduced in their spatial extents.

2. Red dots and major projects corridor

- It is interesting to see that the corridors are along Highway 20 and 16, not the railway. One would ask why the council spent such huge investment on CRL? Wairau Valley was worst hit area during Cyclone Gabrielle which demonstrated unsuitability for intensive development. Yet the area is in the major development corridor. It does not make sense Should the railway /train stations be included as the red dots and corridors?

- If the red dot locations are confirmed eventually, it would be helpful to identify their spatial extents, (like the blue areas) to bring more clarity for future development and avoid future dispute

Accessible local centres

When people have easy access to workplaces, services, facilities and shops, communities become more resilient and connected. It also helps to reduce travel time, emissions and lower household transport costs.

We propose focusing housing and business development near local centres where most people's daily needs are easy to access by walking, cycling and public transport.

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Tell us why

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We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?

Tell us why

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Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?

Tell us why

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

Future Development Plan 2023 #4942

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Your feedback

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We propose that known areas constrained by significant natural hazard risk should be looked at to see if further development is appropriate.

Where development is already enabled in potentially vulnerable locations, we will further investigate appropriate actions.

3. **What do you think of our approach to avoid further growth in areas which are exposed to significant risk of environmental hazards?**

Tell us why

Resilient infrastructure

Infrastructure across Auckland needs to cope with ongoing change, such as the impacts of climate change and evolving technology.

Nature-based infrastructure, such as rain gardens, swales, and detention basins, is better able to respond to ongoing change. This can help protect communities from hazards, as well as protect and restore the natural environment.

We propose prioritising investment in infrastructure that is decentralised, nature-based, regenerative and mauri-enhancing.

4. **What do you think of our approach to prioritising nature-based infrastructure that responds to the impacts of climate change?**

Tell us why

Other feedback

5. Do you have any other feedback on our approach to how and where Auckland should grow and change?

See attached

#4942

Future Proof
Te Tau Tītoki

28 June 2023

Auckland Council
Future Development Strategy | AK Have Your Say (aucklandcouncil.govt.nz)

Dear Sir/Madam

Future Proof Submission to Auckland Future Development Strategy 2023-2053.

The Future Proof partnership is made up of Waikato Regional Council, along with Waikato Iwi, Hamilton City Council, Waka Kotahi (NZ Transport Agency), Waipa District Council, Waikato District Council, Waikato DHB and Matamata-Piako District Council (who joined in 2021). The Future Proof Partnership was expanded in 2019 to include central government, Auckland Iwi and Auckland Council in respect of matters relating to the Auckland-Hamilton corridor. This letter provides a submission on behalf of the Waikato local authority partners of Futureproof only and does not represent the formal views of the full partnership.

Thank you for the opportunity to make a submission on the Auckland Future Development Strategy 2023-2053. Please find attached the Future Proof Waikato local authority partner's submission in regarding this document. This submission was endorsed by Future Proof's Senior Managers Steering Group under delegated authority on 23 June 2023. We look forward to being involved in further discussion on this subject**.**

Should you have any queries regarding the content of this document please contact Robert Brodnax, Future Proof Implementation Advisor, directly on [redacted] or by email futureproofcoordinator@waikatoregion.govt.nz

Regards,

Robert Brodnax
Future Proof Implementation Advisor

#4942

Submission from Future Proof Waikato local authority partners on Auckland Future Development Strategy 2023-2053.

28 June 2023

Introduction

1. The Future Proof Waikato local authority partners appreciate the opportunity to make a submission to the Auckland Future Development Strategy 2023-2053. Future Proof's primary interest is in relation to inter-regional connectivity for boundary communities in northern Waikato.

2. We are overall supportive of the Auckland Future Development Strategy (FDS) and note Future Proof is also currently preparing an FDS for the Future Proof sub-region in the Waikato. As a neighbouring region with close commuter and business links to Auckland (particularly in the North Waikato) the directions set in the FDS are of significant interest due to their implications for our own FDS and our communities' ability to connect to services, jobs and opportunities in Auckland.

Submission

3. The draft Auckland FDS does not make sufficiently explicit the connection between the Auckland and Waikato regions. The FDS references the strong associations to Waikato in regard to catchments for rural communities and notes some Auckland businesses have moved to the Waikato due to availability of industrial land. It also mentions the Waikato water treatment plant as an infrastructure project for water supply and the rail connection between Waikato and Pukekohe. However, it fails to recognise the significant cross boundary matters that lie between the two regions.

4. We consider that the strategy should better recognise the cross-boundary matters around the former Franklin area, and with it, opportunities for inter-regional collaboration. The Future Proof Strategy 2022 makes note of this:

   "There is increasing growth in freight, constraints in the road and rail network, pressures on land use, particularly residential and industrial land, and the need for a more coordinated approach between regions …

   The opportunities lie in developing partnerships that allow for joined up planning between Auckland and the Waikato … and the benefits this can bring to communities and businesses."[1]

5. Waikato District towns such as Pookeno and Tuakau function as satellite urban areas of Auckland city, meaning that many people from these townships commute into Auckland for work (and Aucklanders commute to them for work) – as such, these towns also play a function as part of the Auckland centres hierarchy.

6. Attachment 1 to this submission contains a summary of the North Waikato – South Auckland Enhanced Transport Connections report, prepared by Flow Transportation Specialists. The report identifies potential for significant mode change if substantial investment in the transport networks and facilities is committed to walking, cycling and public transport in South Auckland/North Waikato. It also provides evidence of travel movement between Auckland and Waikato.

7. There is need for further consideration of how people in north Waikato interact with the metro area and Drury, and vice versa. As the southern urban edge of Auckland expands, there is increasing demand for business and housing in the northern Waikato district urban areas. The Future Proof Strategy 2022 notes

[1] Future Proof Strategy 2022, page 33. https://futureproof.org.nz/the-strategy/

that the future role of these areas will be defined in consultation with Auckland Council and other stakeholders.

8. We consider there is a need for joined up planning and shared investment between the Auckland and Waikato regions to strengthen the function of transport corridors, enable strong connections between our communities and better enable integrated development in south Auckland and North Waikato. As part of the implementation plan for the FDS we would like to see a commitment to jointly fund development of an integrated transport and land use plan for South Auckland/North Waikato.

9. In particular, there is opportunity to collaborate better to utilise existing rail and road connections between Auckland and Hamilton.

10. A potential additional opportunity for the Pukekohe node, in Appendix 5 of the FDS, would be to partner with Waikato Regional Council and Waikato District Council/Future Proof for discussions around infrastructure and public transport upgrades to service communities on both sides of the regional boundary.

11. Considering Auckland (and Waikato)'s role in the Upper North Island Strategic Alliance (UNISA), and the Government's indication towards spatial planning on a regional and national level as part of Resource Management Reform, we see Future Development Strategies as a key opportunity to recognise inter-regional strategic issues and to align where possible.

Submitter details

Future Proof
Contact person: Robert Brodnax (Future Proof Implementation Advisor)
Email: futureproofcoordinator@waikatoregion.govt.nz
Phone: [redacted]

I could not gain an advantage in trade competition through this submission
I am not directly affected by an effect of the subject matter of the submission that:
(a) does not adversely affect the environment; and
(b) does not relate to trade competition or the effects of trade competition



North Waikato - South Auckland Enhanced Transport Connections

Transport Assessment

November 2021

flow
TRANSPORTATION SPECIALISTS

#4942

flow
TRANSPORTATION SPECIALISTS

Project:	**North Waikato South Auckland Enhanced Transport Connections**
Title:	**Transport Assessment**
Document Reference:	**\\Flow-dc01\Projects\NZTA\187 North Waikato Southern Auckland Enhanced Transport Connection\4.0 Reporting\R1E211124 North Waikato Transport Study.docx**
Prepared by:	**Gareth Davies, Michael Jongeneel, Angie Crafer**
Reviewed by:	**Ian Clark**

Revisions:

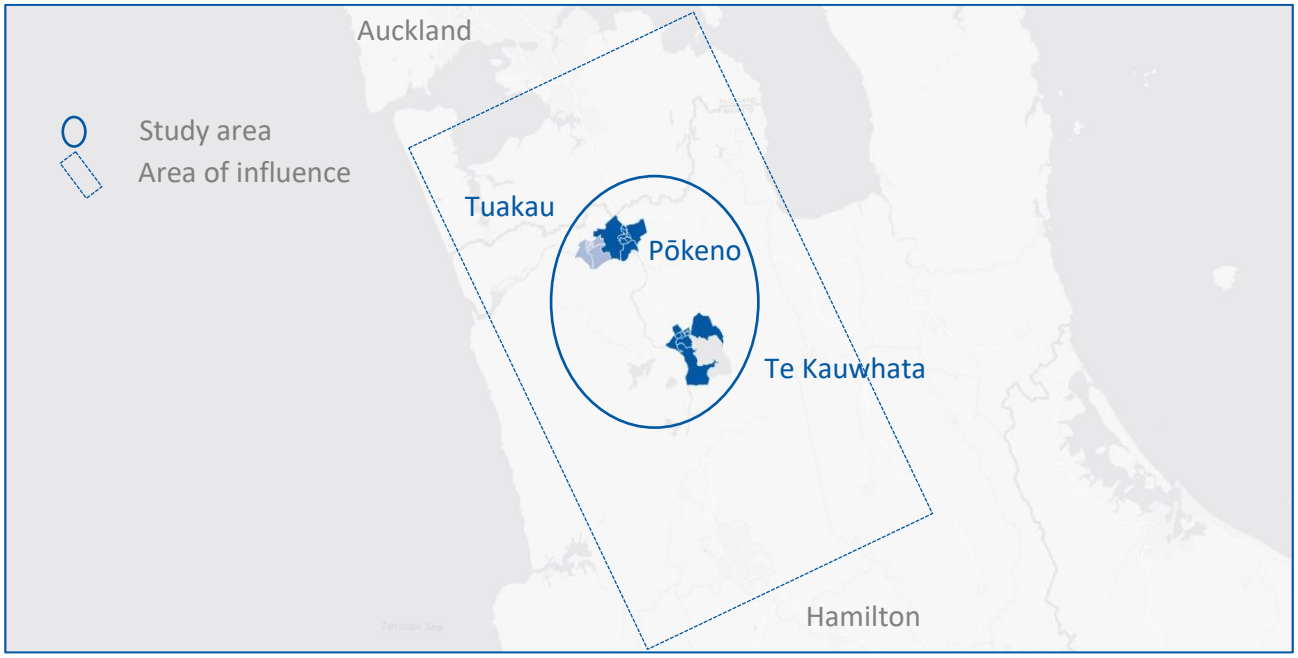
Date	Status	Reference	Approved by	Initials
26 May 2021	Draft	R1A210525	Ian Clark	IC
3 August 2021	Draft	R1B210803	Ian Clark	IC
6 October 2021	Final	R1C211006	Ian Clark	IC
8 October 2021	Update (formatting)	R1D211008	Ian Clark	IC
24 November 2021	Minor additions	R1E211124	Ian Clark	IC

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EXECUTIVE SUMMARY

Flow Transportation Specialists Ltd has been commissioned by Waka Kotahi to provide transport planning inputs to Phase 1 of the North Waikato - South Auckland Enhanced Transport Connections Programme Business Case (PBC). The PBC considers the future travel needs of the North Waikato and South Auckland, between Drury and Te Kauwhata.

Figure ES1: Indicative area of study showing the area of influence and the area of investigation



This report summarises the data collected through our review of the available transport planning evidence, including land use forecasts, census data and modelled travel demands. Our review has found:

- There are major differences in the various land use forecasts for North Waikato/South Auckland, particularly for Pōkeno, Tuakau and Te Kauwhata
- Understandably, there are differences in the traffic forecasts from the Auckland and Waikato regional transport models, due in part to these differing land use inputs
- Both the Auckland and Waikato regional transport models appear to suffer from 'edge of model' effects within the study area. This is not intended to imply criticism of either model; rather it is an issue to be expected on the edges of regional models of this size.

The key points to note from the land use forecasts for North Waikato include:

- The forecast population in North Waikato in 2055, according to NIDEA, is some 65% higher than that in the Waikato Regional Transport Model (WRTM) for 2051
- The employee to population ratio for North Waikato predicted to be is 0.35, according to WRTM, while according to NIDEA it is predicted to be lower, at 0.26. This implies that, at this stage, the proportion of trips required to leave the townships in North Waikato will increase, due to the predicted lack of local jobs.

For this study we have carried out a series of manual adjustments to the forecast demands. These are considered adequate for the purposes of the study, although a more robust solution is likely to be required for subsequent work. Indeed, given the apparent increase in interactions between North Waikato and South Auckland, there would appear to be merit in extending the Auckland Macro Strategic Model to include the North Waikato area, or in developing an alternative approach to developing reliable travel forecasts for the area.

If existing travel trends (as currently anticipated by the Waikato Regional Transport Model) continue, then significant further increases in traffic can be anticipated within North Waikato/South Auckland. However, WRTM is a traffic model (not a multi modal transport model) and we note the following:

- Investment in active modes (pedestrians and by bicycles) is likely to increase walking and cycling trips within townships, or between adjacent townships
- Greater emphasis should be given to land use combinations that maximise the potential for short trips within townships (ie avoiding the need for some longer distance travel)
- There is significant potential for mode change to public transport, if appropriate investment is made in quality infrastructure and services. This could be in several forms, including a bus based system within North Waikato which connects to the key centres and the rail network to the north, and/or the extension of passenger rail south of Pukekohe, with stations serving the main North Waikato townships. (We of course acknowledge that the Te Huia train service now runs from Hamilton to Auckland, but this is a long distance service that bypasses (i.e. does not stop within) North Waikato)
- North Waikato and South Auckland are dependent to a significant degree on transport networks with limited route choice (i.e. these networks are overdependent on the North Island Main Trunk Line and State Highway 1). Significant changes in travel behaviour, with greater proportions of local trips within townships and shorter trips to work (such as from North Waikato and South Auckland to Drury, rather than further to the north) would appear to be essential, in order to reduce the forecast demands on these networks
- A review of this work should be carried out following any update to Auckland's Macro Strategic model (or the development of alternative approach) that includes public transport and active mode forecasts and a reduction of the edge of model effects identified by this study.

Conclusion

This study has considered the transport implications of significant potential land use change within North Waikato. It has noted that mode shares for trips to/from North Waikato by walking, cycling and public transport are currently exceptionally low, reflecting the current poor provision for these modes, and the rural location of the North Waikato townships, beyond Greater Auckland. The report highlights the potential for significant mode change, which will reduce but not resolve the transport effects of the land use change. However, this will only be achievable if substantial investment in the transport networks and facilities is committed to walking, cycling and public transport in South Auckland/North Waikato, along with commitment to ongoing operating expenditure for public transport and to land use mixes that support these transport modes and reduce average trip lengths.

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APPENDICES

APPENDIX A FORECAST LAND USES
APPENDIX B DERIVATION OF TRAFFIC FLOWS BASED ON UPDATED LAND USES AND MODE SHIFT

1 INTRODUCTION

Flow Transportation Specialists Ltd has been commissioned by Waka Kotahi to provide transport planning inputs to Phase 1 of the North Waikato - South Auckland Enhanced Transport Connections Programme Business Case (PBC). The study considers the future travel needs of the North Waikato and South Auckland, between Drury and Te Kauwhata.

The study follows on from an earlier project, the North Waikato Integrated Growth Management PBC. We previously provided transport planning advice to support that PBC in 2017, and this is documented in an earlier Transport Assessment[1].

The investment objectives set out in the PBC are as follows:

- Improve North Waikato's liveability through increased access to, from and within urban growth areas, including to services and amenities, employment areas, town centres
- Enhance Waikato's connectivity through increased effectiveness and efficiency of the multi modal transport network to, from and within urban areas
- Improve national and regional economic growth and performance of the Auckland and Waikato regions by improving interregional connections and connections within the Waikato region
- Deliver on the Future Proof principles and provide infrastructure as required for the North Waikato region and are consistent with development patterns set by Future Proof.

Phase 1 of the study included revision of the evidence base, as recommended in the strategic case. This report summarises the data collected through our review of the available evidence.

In producing this report we have reviewed the following:

- Future land use changes currently allowed for in Auckland's Macro Strategic Model (MSM) for the year 2048, which is currently the furthest forecast year assessed in the MSM
- Future land use changes currently allowed for in the Waikato Regional Transport Model (WRTM) for the year 2051, which is currently the furthest forecast year assessed in the WRTM
- Future land use changes forecast in the Waikato District Council's Growth and Economic Development Strategy document, Waikato 2070 study
- Future land use changes forecast provided in council evidence through the update of the Waikato District Plan
- Current travel demands for commute to work and education trip types, from 2018 census data
- Current travel demands by trip types and by all modes, based on the most recently available base (2013) WRTM and base (2016) MSM
- Future forecast trips based on the most recently available long term forecast WRTM (2051) and MSM (2048).

[1] Flow Transportation Specialists Ltd for the New Zealand Transport Agency. *North Waikato Integrated Growth Management Programme Business Case: Transport Assessment of Short Listed Options*. October 2017

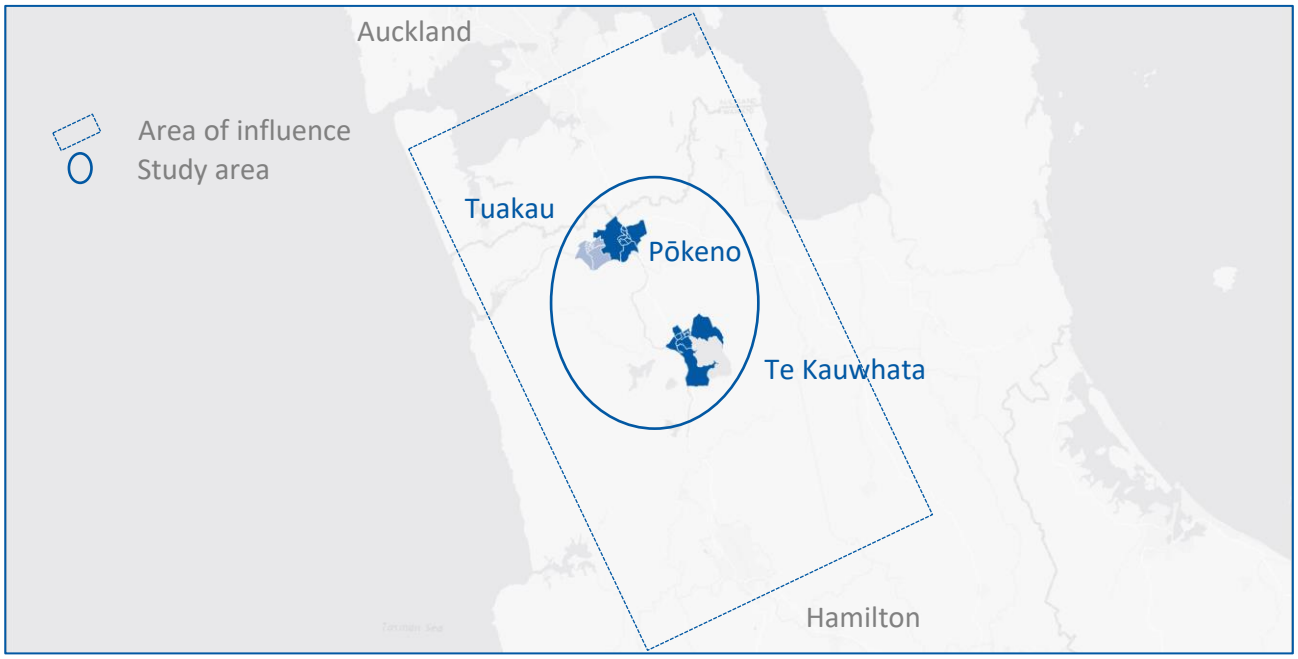
Following consultation with Waikato District Council and Auckland Council, we have reviewed:

- Future high land use changes forecast provided by the National Institute of Demographic and Economic Analysis (NIDEA)
- The various land use forecasts and we have manually adjusted travel demands from the WRTM and/or MSM accordingly
- The proportions of forecast trips that are within distances that may be considered "walkable or cyclable", and we have considered what proportions of these trips may reasonably be assumed to change from car-based travel
- The proportions of forecast trips that are between origins and destinations that are currently assumed to be served by public transport, or freight trips, and we have considered what proportions of these trips may reasonably be assumed to change from car (or truck)-based travel.

2 THE STUDY AREA

From the assessment of growth forecasts within the study area (see Section 3) we have identified Tuakau, Pōkeno, and Te Kauwhata as communities expecting significant development in the future. These communities are considered the key origins for our study. The study area is indicated in Figure 1 with an approximate area of influence including likely origins and destinations for the highlighted key communities of Tuakau, Pōkeno, and Te Kauwhata. We have also included Pukekohe to further compare the MSM and WRTM models.

Figure 1: Indicative area of study showing the area of influence and the area of investigation



3 LAND USE FORECASTS FOR THE NORTH WAIKATO

In the following section we review and compare the various land use forecasts for the North Waikato towns. Sources of land use data include:

- The Waikato Regional Transport Model (WRTM)
- Auckland's regional transport model, the Macro Strategic Model (MSM)
- Waikato 2070 – the Waikato District Council's Growth and Economic Development Strategy
- The Waikato District Council's District Plan review[2]

We note that Waikato 2070 provides forecasts for population only, while the District Plan review provides only household forecasts. The two forecasts are consistent however, if we assume between 2.3 and 3.0 persons per household. As a result, we have presented only the population forecasts from Waikato 2070 in the following section.

Work is currently progressing on an update of the WRTM to a 2018 base. However, projections of future travel patterns from this base are not expected to be developed until late 2021. As a result, we have used outputs from the previous, 2013 base model for our analysis, including the future year forecasts up to 2051 from that base. The MSM base is from 2016.

Comparisons of land use assumptions between the two models, and from Waikato 2070 where available, are presented on the following pages. We note that

- Most, if not all, North Waikato communities are expected to see growth in households, population, and employment
- The MSM and WRTM have minor discrepancies when forecasting households within the South Auckland region
- The three data sources have substantial differences in forecasts for North Waikato communities.

[2] Waikato District Council. 19 January 2021. Proposed Waikato District Plan Section 42A Report: Hearing 25 Zone Extents Framework Report

3.1 Population forecasts

Figure 2: Population Forecasts
Pukekohe and Paerata

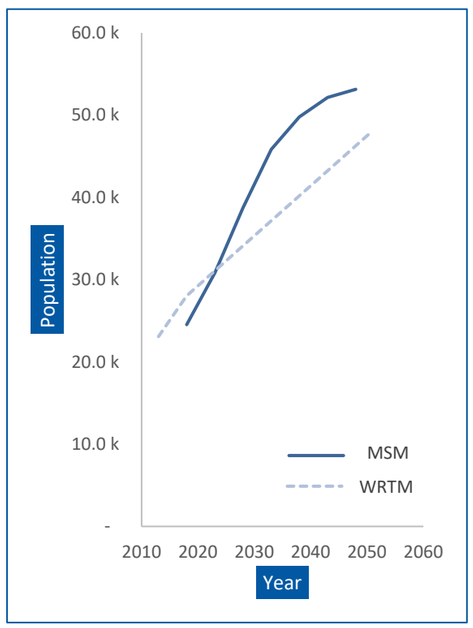


Figure 3: Population Forecasts
Drury

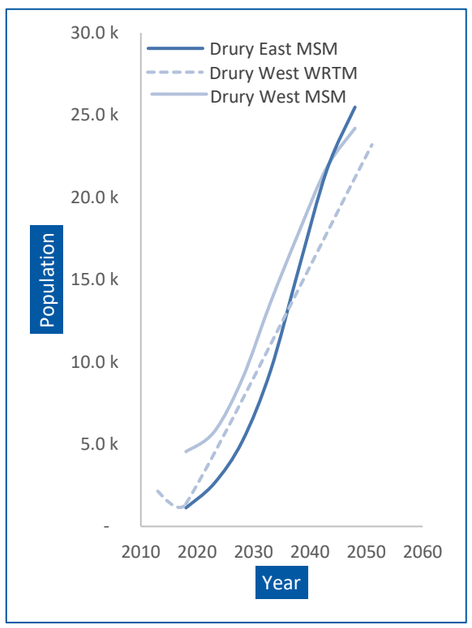


Figure 4: Population Forecasts
Tuakau

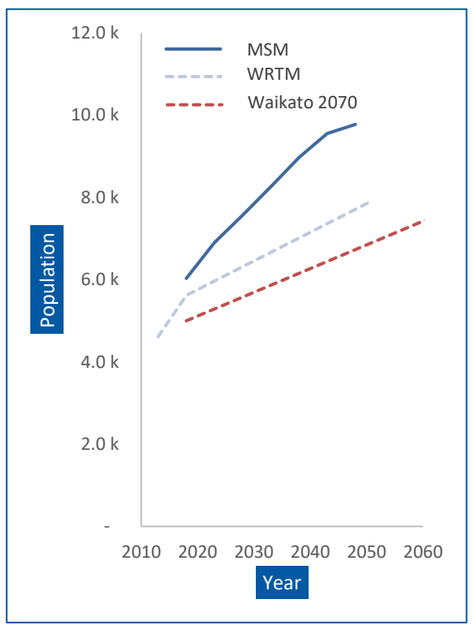


Figure 5: Population Forecasts
Pōkeno

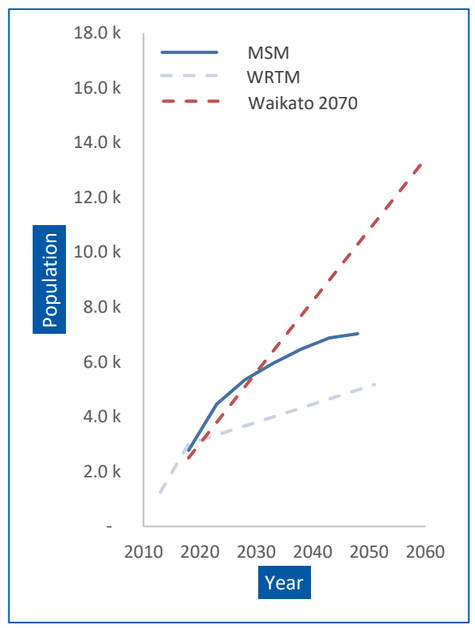
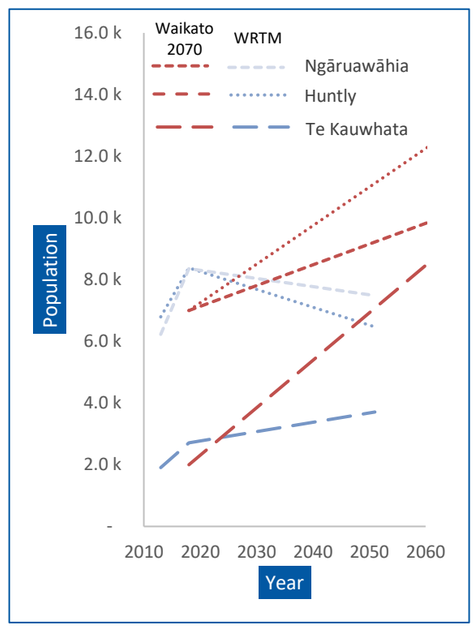


Figure 6: Population Forecasts
Ngāruawāhia, Huntly and Te Kauwhata



We note that

- Substantial population growth is expected within most, if not all, communities
- The WRTM predicts negligible growth in households within Huntly and Ngāruawāhia, which is contrary to the Waikato 2070 forecasts
- The overall predicted population growth in the southern part of the Auckland region (Pukekohe, Paerata and Drury) is similar for the MSM and WRTM models
- Absolute growth within Pukekohe (+30,000 residents) and Drury (+50,000) is substantially greater than in the North Waikato towns (generally +1,000 to +10,000)
- The three data sources differ in terms of the assumed growth of Tuakau, Pōkeno and Te Kauwhata
  - in Tuakau, the WRTM estimates 7,900 residents in 2051, while the MSM estimates 10,300 in 2048, and Waikato 2070 estimates 8,000 in 2070
  - in Pōkeno, the WRTM estimates 5,200 residents in 2051, while the MSM estimates 7,400 in 2048, and Waikato 2070 estimates 16,000 in 2070
  - in Te Kauwhata, the WRTM estimates 3,700 residents in 2051, while Waikato 2070 estimates 10,000 in 2070
- It may therefore be appropriate to apply factors to trip outputs from the WRTM and/or MSM, to align the various land use forecasts.

We also note that the WRTM includes Drury West, but not Drury East.

3.2 Employment forecasts

Figure 7: Employment Forecasts Pukekohe and Paerata

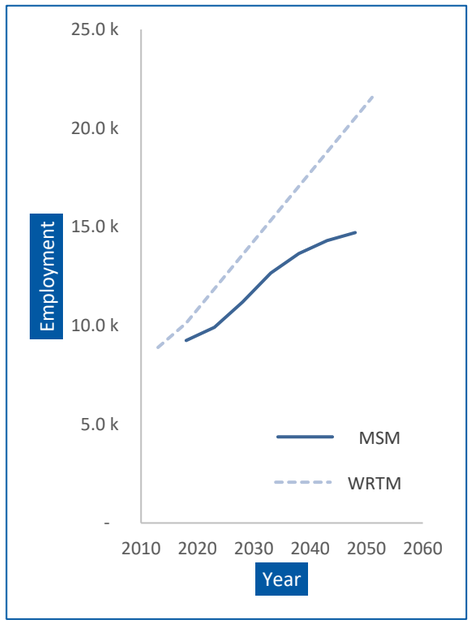


Figure 8: Employment Forecasts Drury

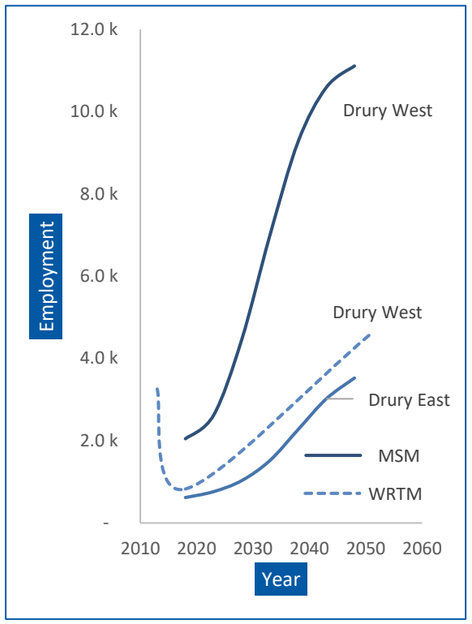


Figure 9: Employment Forecasts Tuakau

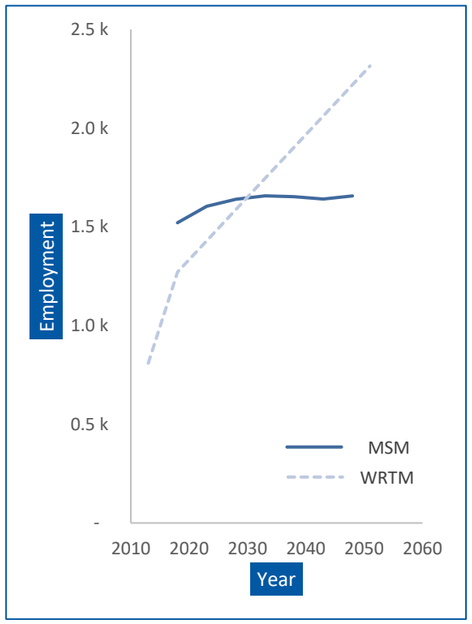


Figure 10: Employment Forecasts Pōkeno

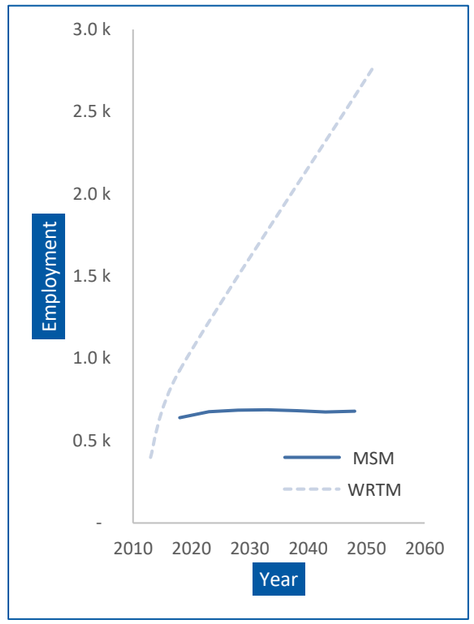
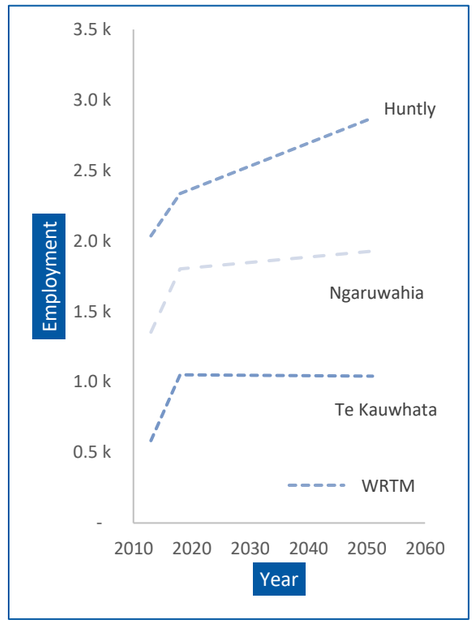


Figure 11: Employment Forecasts Ngāruawāhia, Huntly and Te Kauwhata



We note that:

- There are significant differences between the two models' employment growth forecasts, with
  - the MSM assuming 15,000 jobs within Pukekohe and Paerata, and the WRTM assuming 22,000
  - the MSM assuming 11,000 jobs within Drury West, and the WRTM assuming 4,600 (the WRTM excludes Drury East)
  - the MSM assuming 1,700 jobs within Tuakau, and the WRTM assuming 2,300
  - the MSM assuming 700 jobs within Pōkeno, and the WRTM assuming 2,800
- Combining Pukekohe, Paerata and Drury West however, both models agree with approximately 26,000 jobs
- Reviewing the local employment opportunities per household equivalent[3], the MSM has a lower number of local jobs per household in Tuakau (0.27) and Pōkeno (0.47) compared to the WRTM predictions (1.20 and 0.95)
- For Pukekohe, Paerata and Drury West, overall local jobs per household are predicted to be lower in MSM (0.87) compared to WRTM (1.0)
- The implication is that the two models differ in terms of the quantity of local employment opportunities within Tuakau and Pōkeno, and therefore also differ in the number of employment trips assumed to be made to other employment areas. For example, assuming that the employment opportunities in these communities can be undertaken by people living in the community, then the WRTM model will predict few employment trips need to be made out of the local area, whereas the MSM model will predict a much larger number.

[3] Assuming the national average of 2.7 people per household

3.3 Summary

As a result of the above analysis, and following consultation with the Auckland Forecasting Centre and Waikato District Council, we consider that the following land use assumptions should be used for this study, as shown in Table 1 and Table 2. The population and employment values are the total from North Waikato communities so the WRTM can be directly compared with the NIDEA forecasts. These include Tuakau, Pōkeno, Te Kauwhata, Huntly, and Ngāruawāhia, whereas the South Auckland communities (Drury, Pukekohe, Paerata) are compared with the MSM. The disaggregated NIDEA forecasts are provided in Appendix A.

Table 1: Summary of population and employment in North Waikato communities

	Population		Employees	
	WRTM	NIDEA	WRTM	NIDEA
Base 2018	28,420	29,030	7,500	7,200
Forecast 2051	31,900	52,900	11,320	13,520
2055 (to be used for this study)	52,900		13,520	

Table 2: Summary of population and employment in South Auckland communities

	Population		Employees	
	WRTM	MSM	WRTM	MSM
Base 2018	29,400	29,000	10,900	11,300
Forecast 2051	71,300	77,300	26,200	25,800
2048 (to be used for this study)	77,300		26,200	

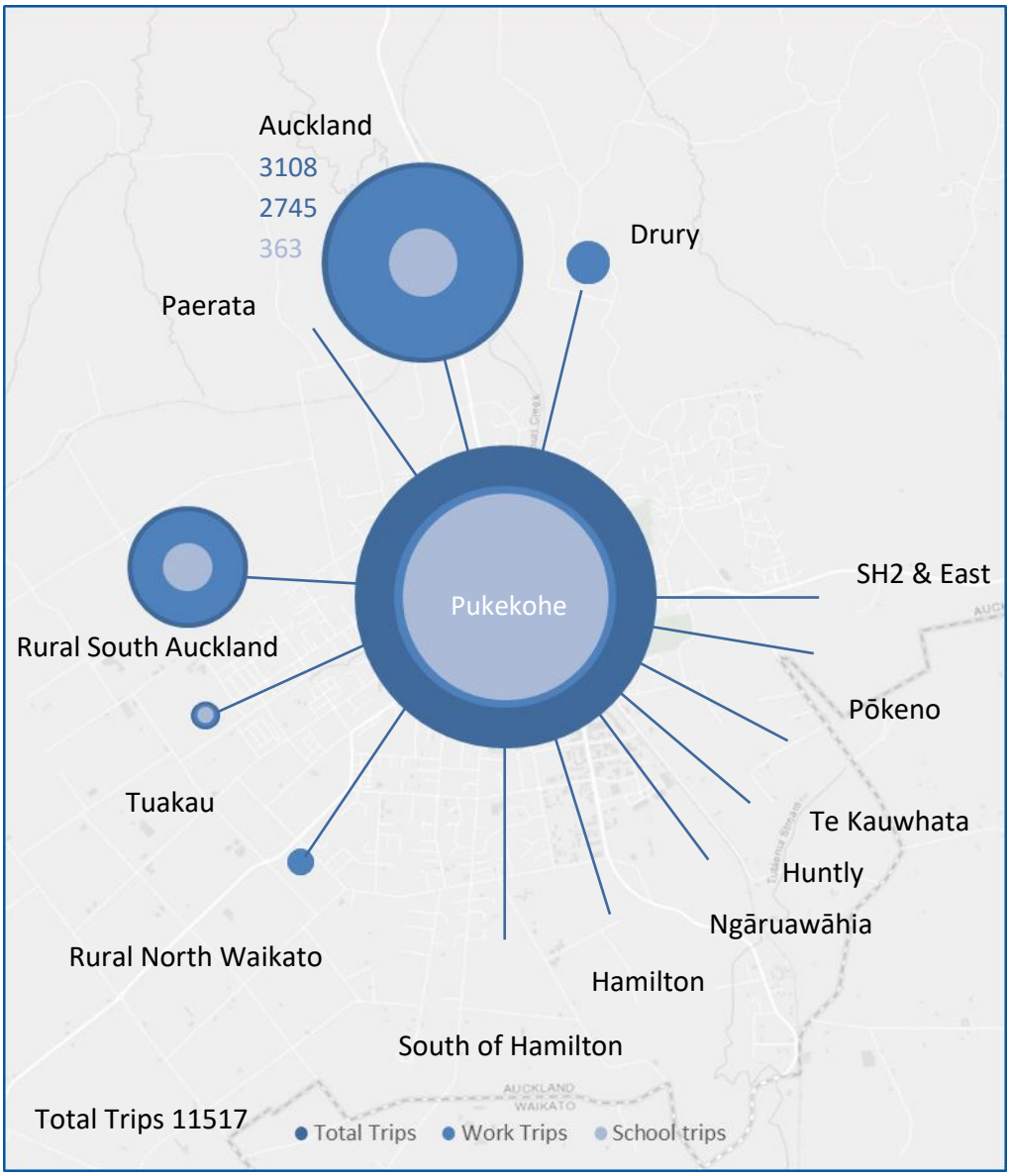
The key points to note from the above tables are as follows.

- The forecast population in North Waikato, according to NIDEA, is some 65% higher than that in WRTM
- The employee to population ratio for North Waikato predicted to be is 0.35, according to WRTM, while according to NIDEA it is predicted to be lower, at 0.26. This implies that, at this stage, the proportion of trips required to leave the townships in North Waikato will increase, due to the predicted lack of local jobs.

4 EXISTING TRAVEL PATTERNS

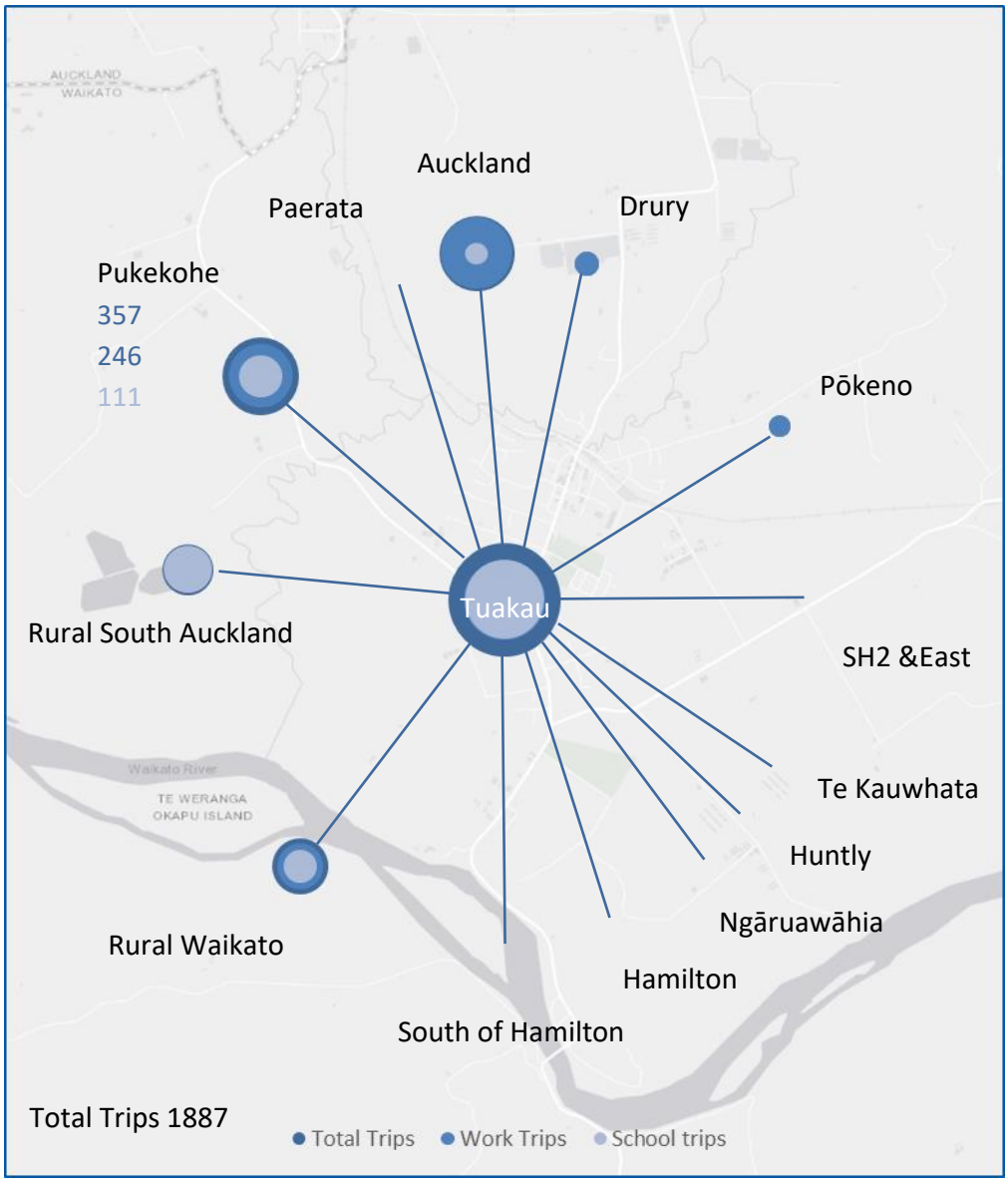
The existing travel patterns have been obtained from Stats NZ Tatauranga Aotearoa from the 2018 Census. The travel patterns are illustrated in the following figures, and include the daily commute trips to work and to school.

Figure 12: Total daily commute to work/education trips originating in Pukekohe from the 2018 Census



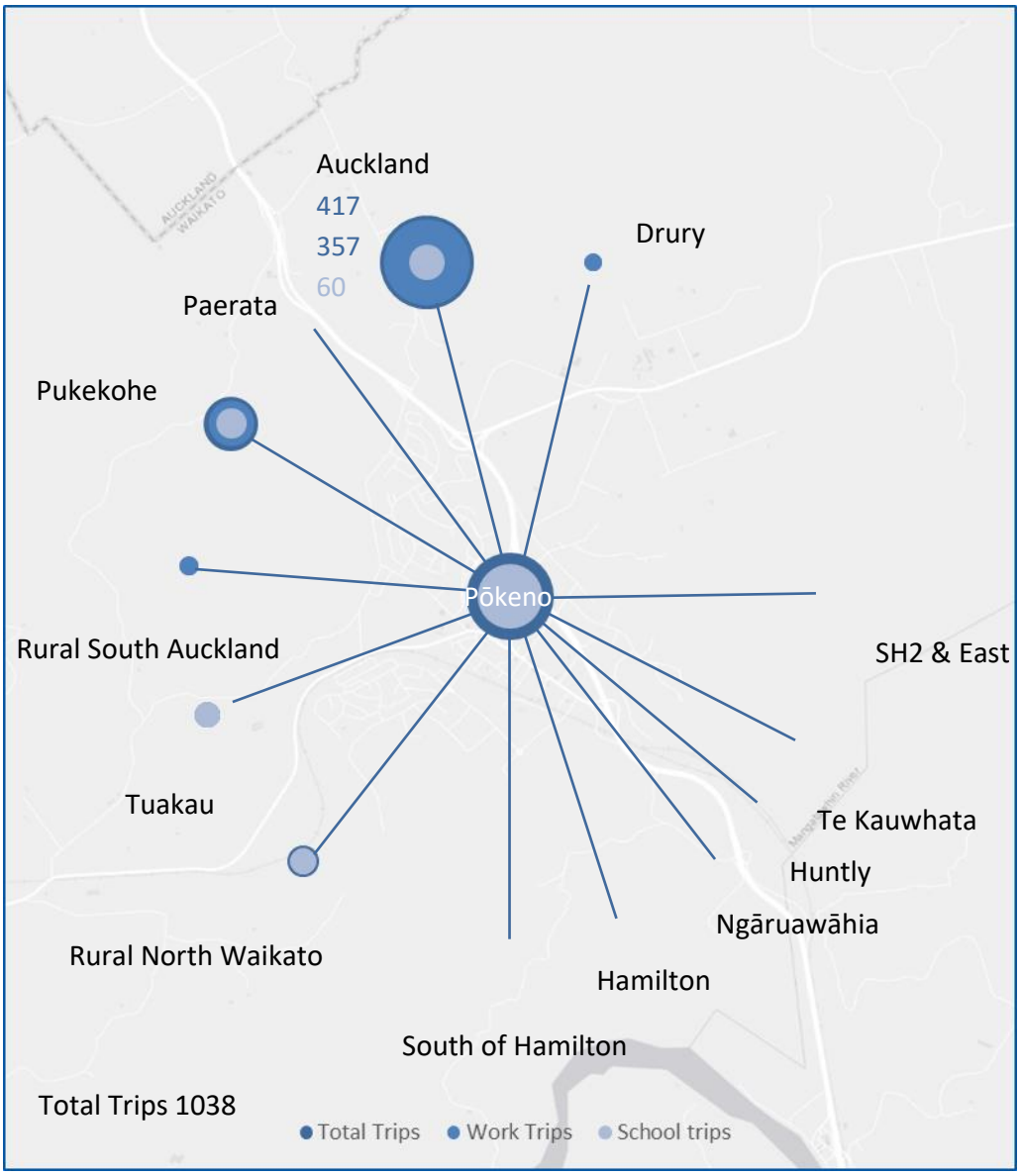
The majority of Pukekohe's existing commute to school trips are internal trips within Pukekohe, while commute to work trips are distributed between Pukekohe, Auckland and rural Auckland.

Figure 13: Total daily commute to work/education trips originating in Tuakau from the 2018 Census



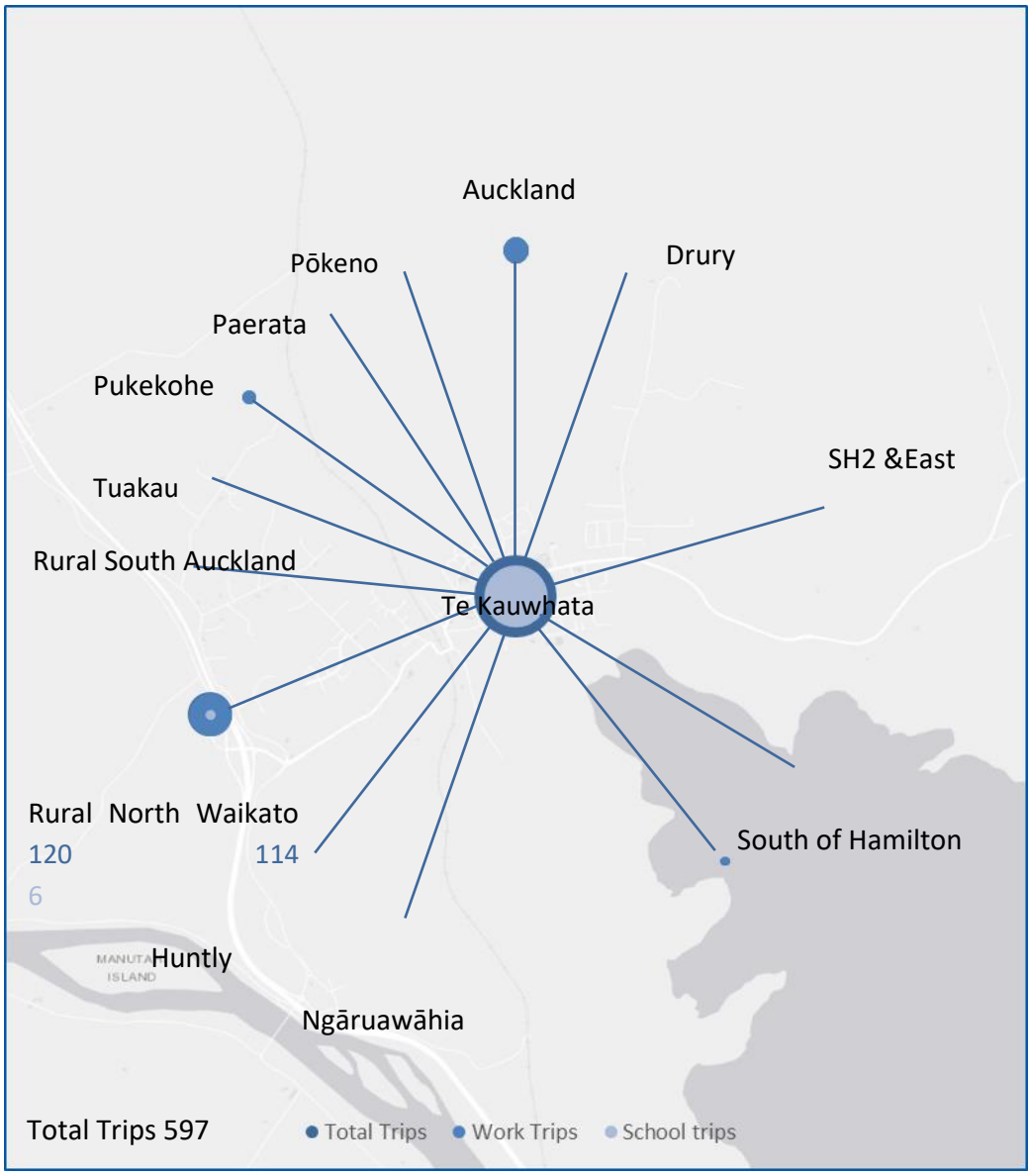
Like Pukekohe, the majority of Tuakau's existing commute to school trips are internal. Trips to employment are generally internal, to Auckland or to Pukekohe.

Figure 14: Total daily trips commute to work/education originating in Pōkeno from the 2018 Census



Pōkeno is less self sufficient in terms of employment than either Pukekohe or Tuakau, and the majority of existing employment trips are to jobs in Auckland. The majority of trips to school are internal.

Figure 15: Total daily commute to work/education trips originating in Te Kauwhata from the 2018 Census



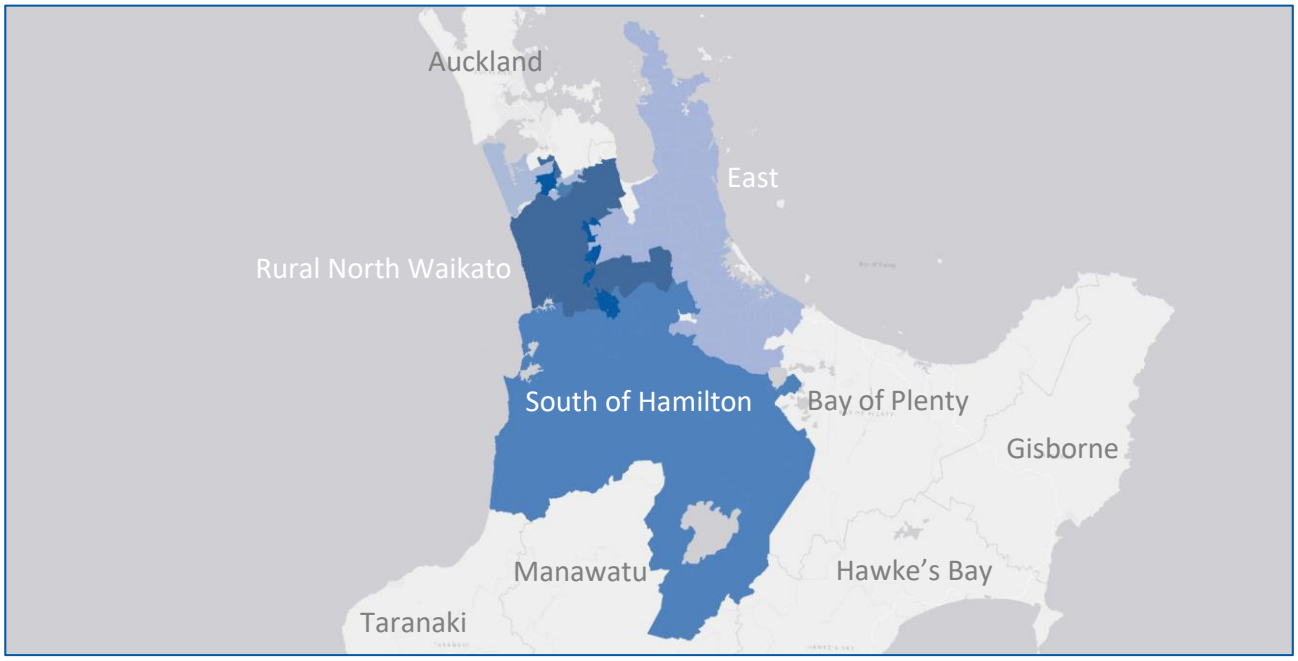
Like Pōkeno, Te Kauwhata's trips to education are generally internal, while almost all commute to work trips are external – in this case to rural areas.

5 MODELLED TRAVEL PATTERNS

We have obtained trip matrices from the MSM and WRTM, and have sectored the zones within these models into 14 sectors. Those sectors are illustrated in Figure 16 and Figure 17, and include

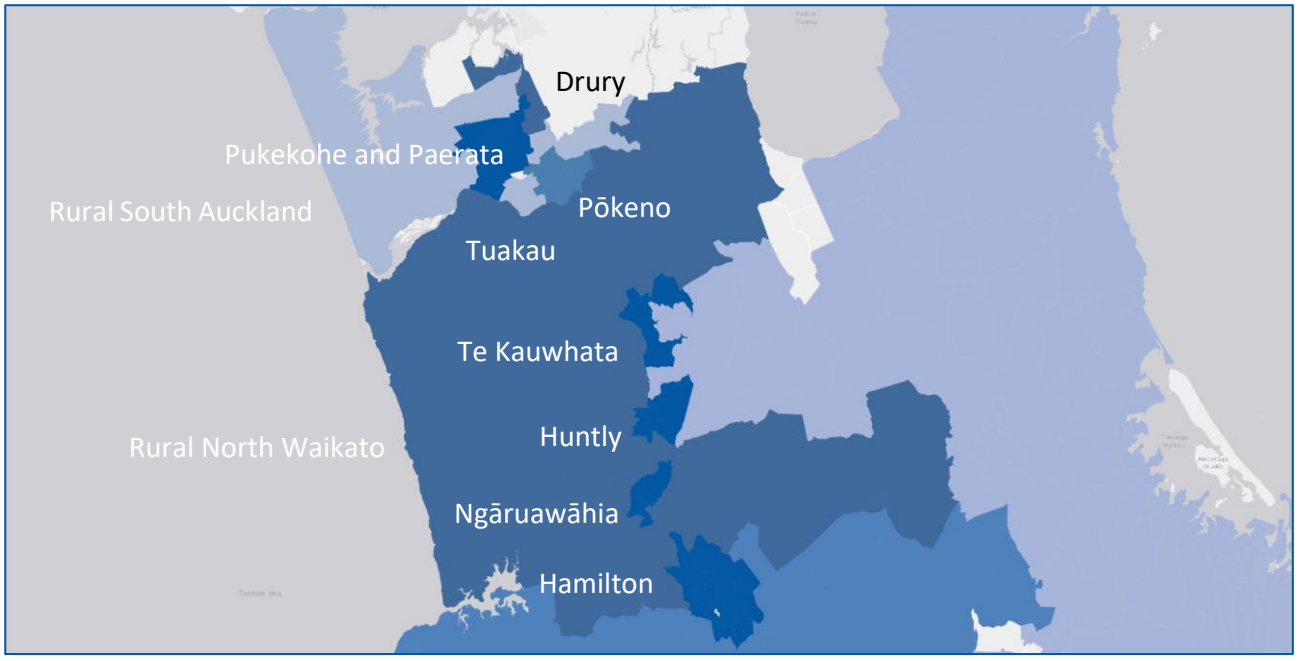
- Auckland[4]
- rural south Auckland areas
- Drury
- Paerata
- Pukekohe
- Tuakau
- Pōkeno
- rural north Waikato areas (WRTM only)
- Te Kauwhata (WRTM only)
- Huntly (WRTM only)
- Ngāruawāhia (WRTM only)
- Hamilton (WRTM only)
- areas south of Hamilton (WRTM only)
- areas east of Hamilton (WRTM only)

Figure 16: WRTM and MSM zones sectored into communities that influence the study area



[4] Auckland refers to the entire Auckland region, north of the other Auckland sectors identified

Figure 17: WRTM and MSM zones sectored into communities that influence the area of study



We have reviewed the sectored trip data from the two models to determine the trips in and out of the study area, focussing on Tuakau, Pōkeno and Te Kauwhata. The figures on the following pages illustrate the morning peak period trips out of Pukekohe, Tuakau, Pōkeno, and Te Kauwhata, from the respective base and forecast models.

The figures include:

- Trips to work
- Trips to education
- Other trip types, including shopping, social, recreation, and other trips as identified by the two models.

Within each figure, we have included the overall number of trips, as well as the number of trips of each type to the most popular destination, to illustrate scale.

When comparing the figures in the following pages to the census travel data presented previously in Section 4, we note that:

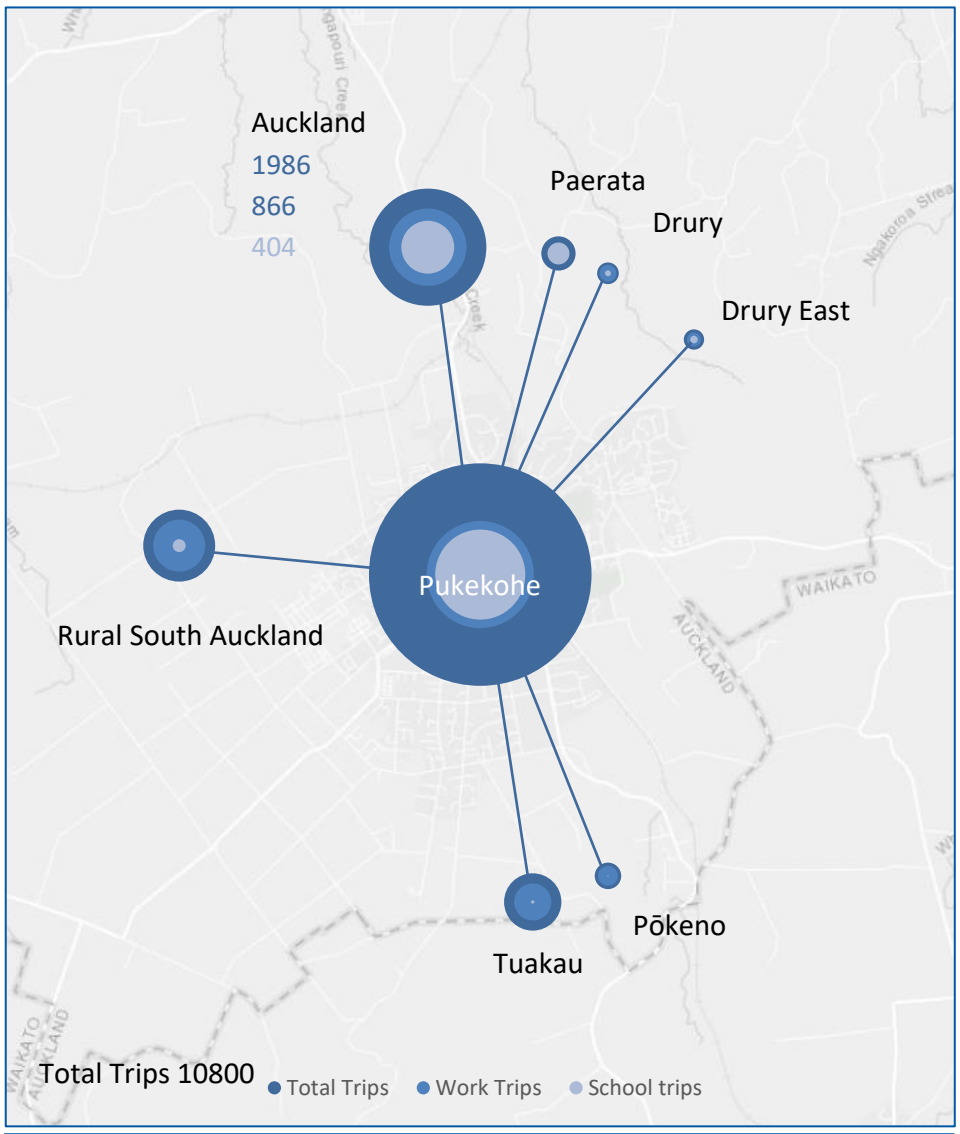
- The census data contains only commute trips to work and education, while the model data also includes other trip types
- The census data represents all day travel, while the model data represents only the morning peak period as output from the MSM and WRTM.

While the Auckland Forecasting Centre (AFC) intends to extend and refine the southern extent of the MSM into North Waikato, this work has not yet begun. As a result, the MSM includes Tuakau and Pōkeno, but no areas further south.

The WRTM includes Pukekohe and Drury West, but excludes Drury East.

5.1 Pukekohe

Figure 18: Morning peak period trips originating in Pukekohe in 2016 (top) and forecast for 2048 (bottom) based on the MSM



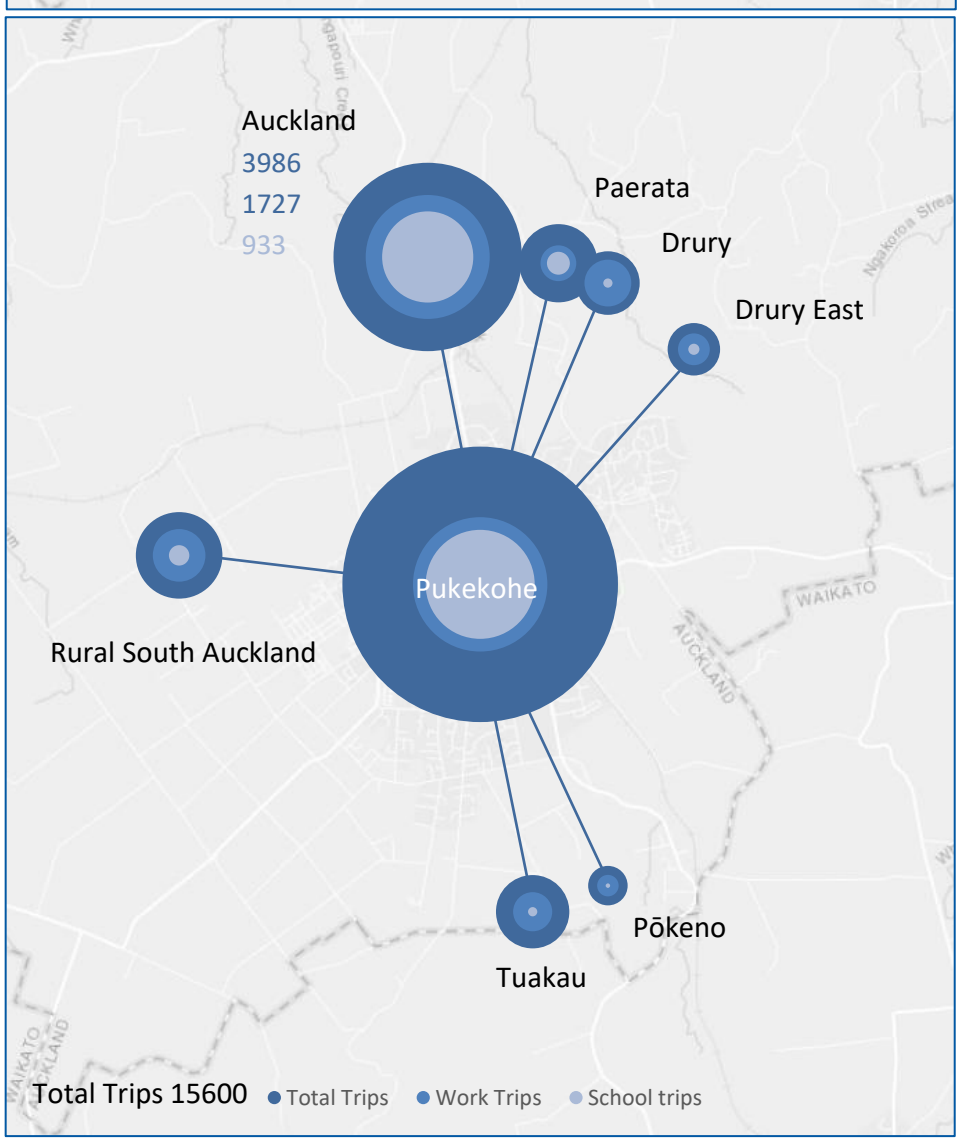
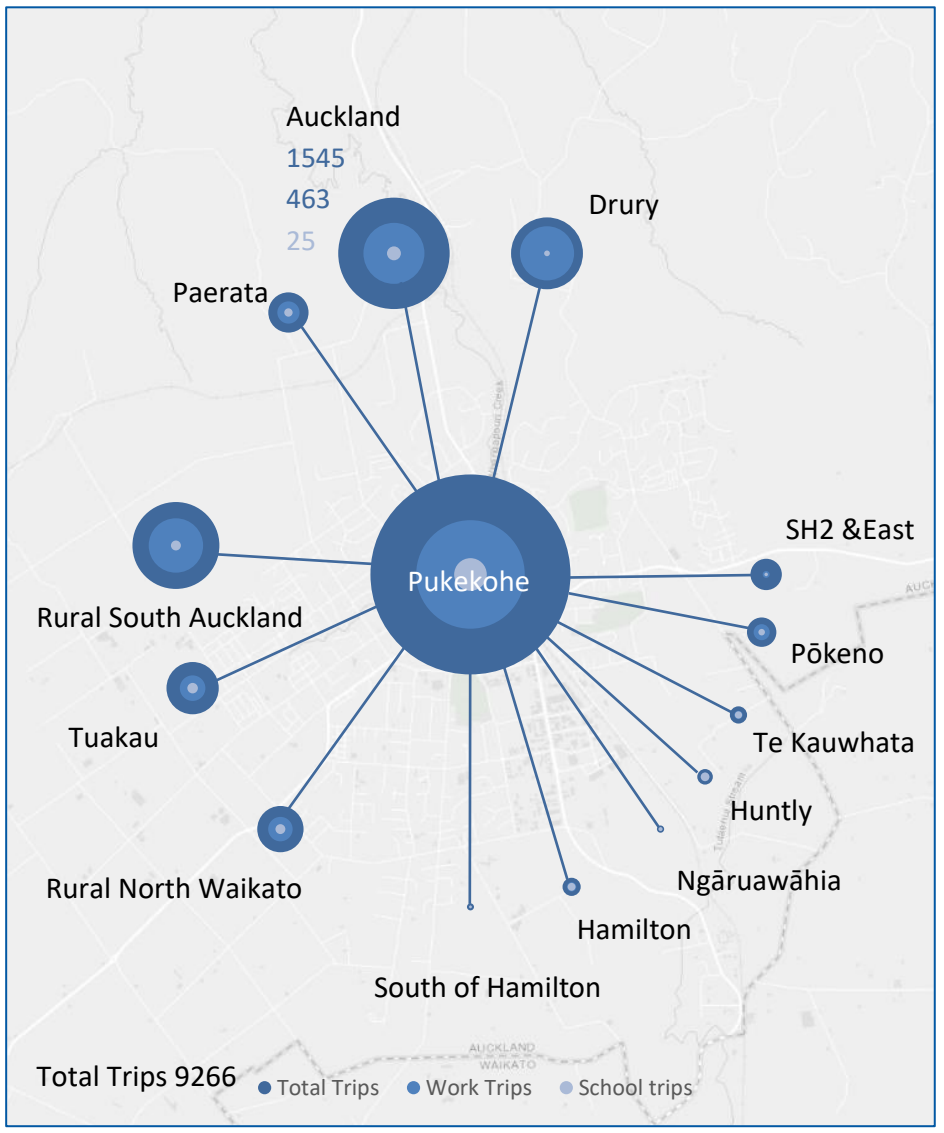
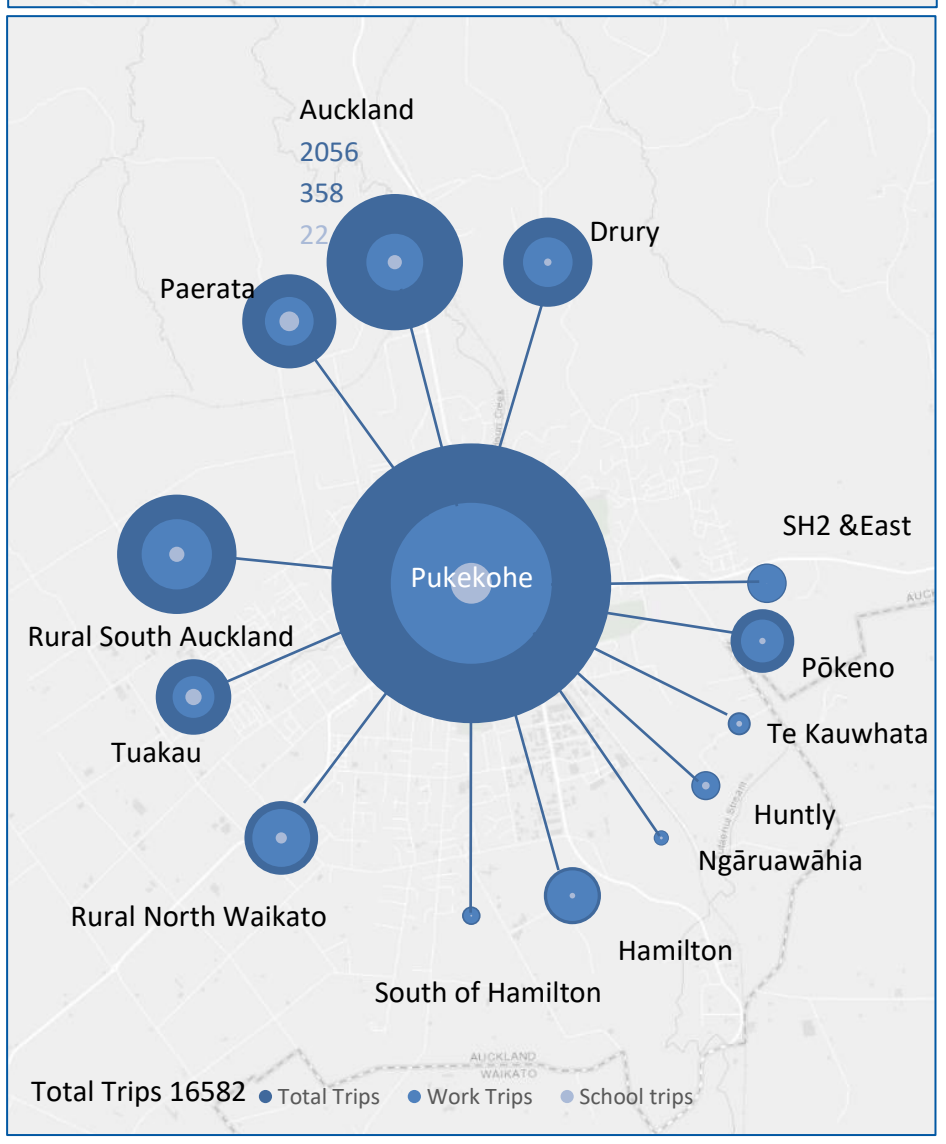


Figure 19: Morning peak period trips originating in Pukekohe in 2013 (top) and forecast for 2051 (bottom) based on the WRTM



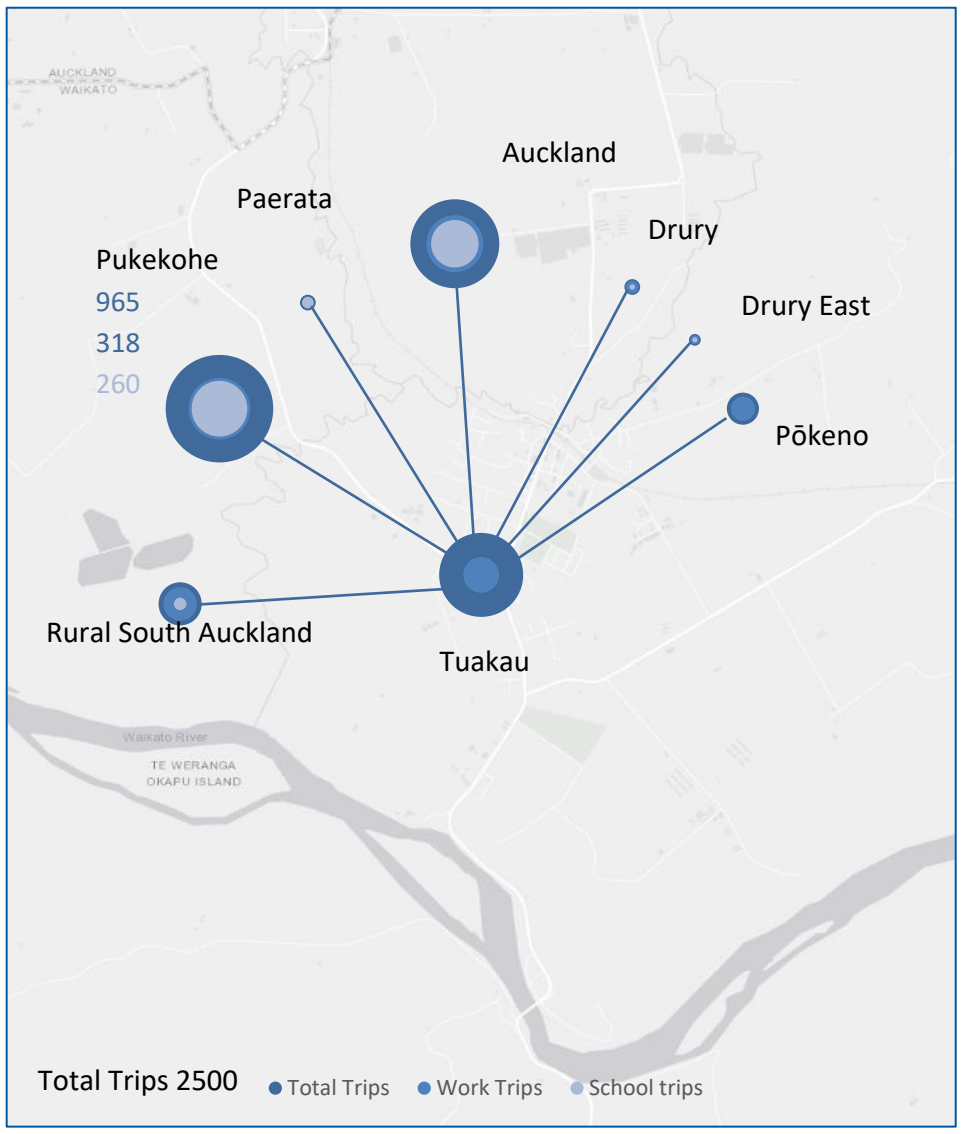


Currently, the majority of Pukekohe's trips to work and school are internal or to Auckland (refer to the census data in Figure 12 previously). Both the MSM and WRTM base models agree with this.

In terms of forecast trips, both models predict a substantial number of internal trips within Pukekohe. Most of the external trips are predicted to be to Auckland, with very few trips to Tuakau, Pōkeno or further south. This represents a continuation of existing Pukekohe travel patterns, although the forecast proportion of trips from Pukekohe to Auckland is much lower according to the WRTM than the MSM.

5.2 Tuakau

Figure 20: Morning peak period trips originating in Tuakau in 2016 (top) and forecast for 2048 (bottom) based on the MSM



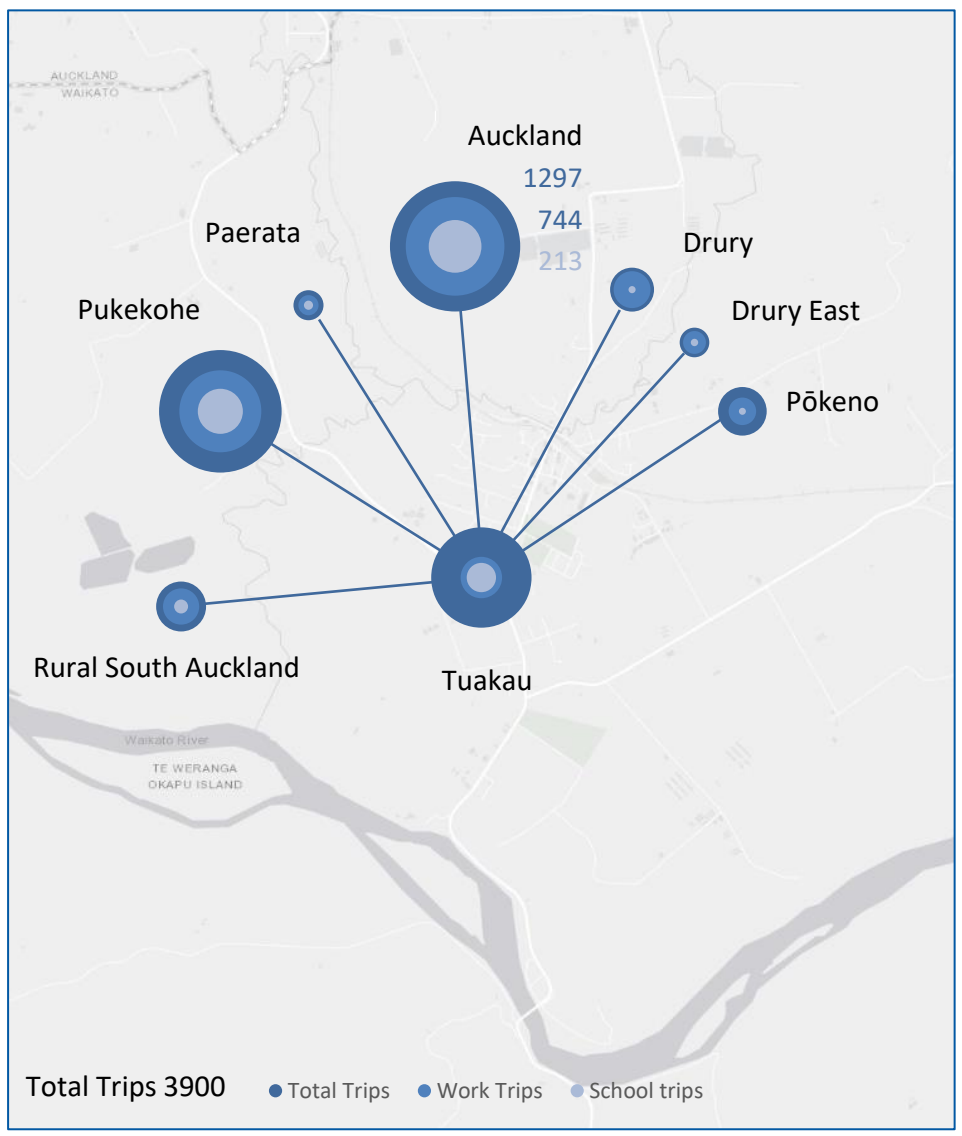
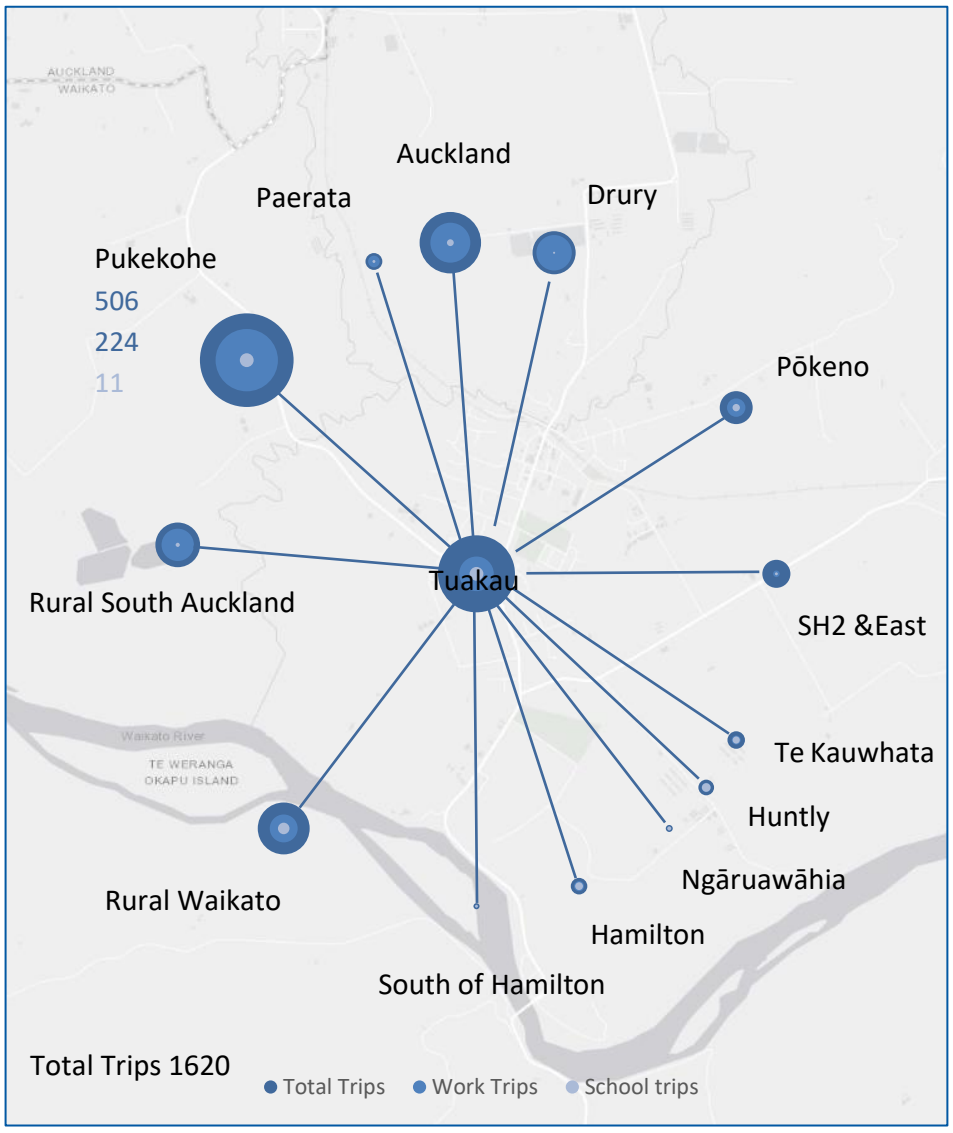
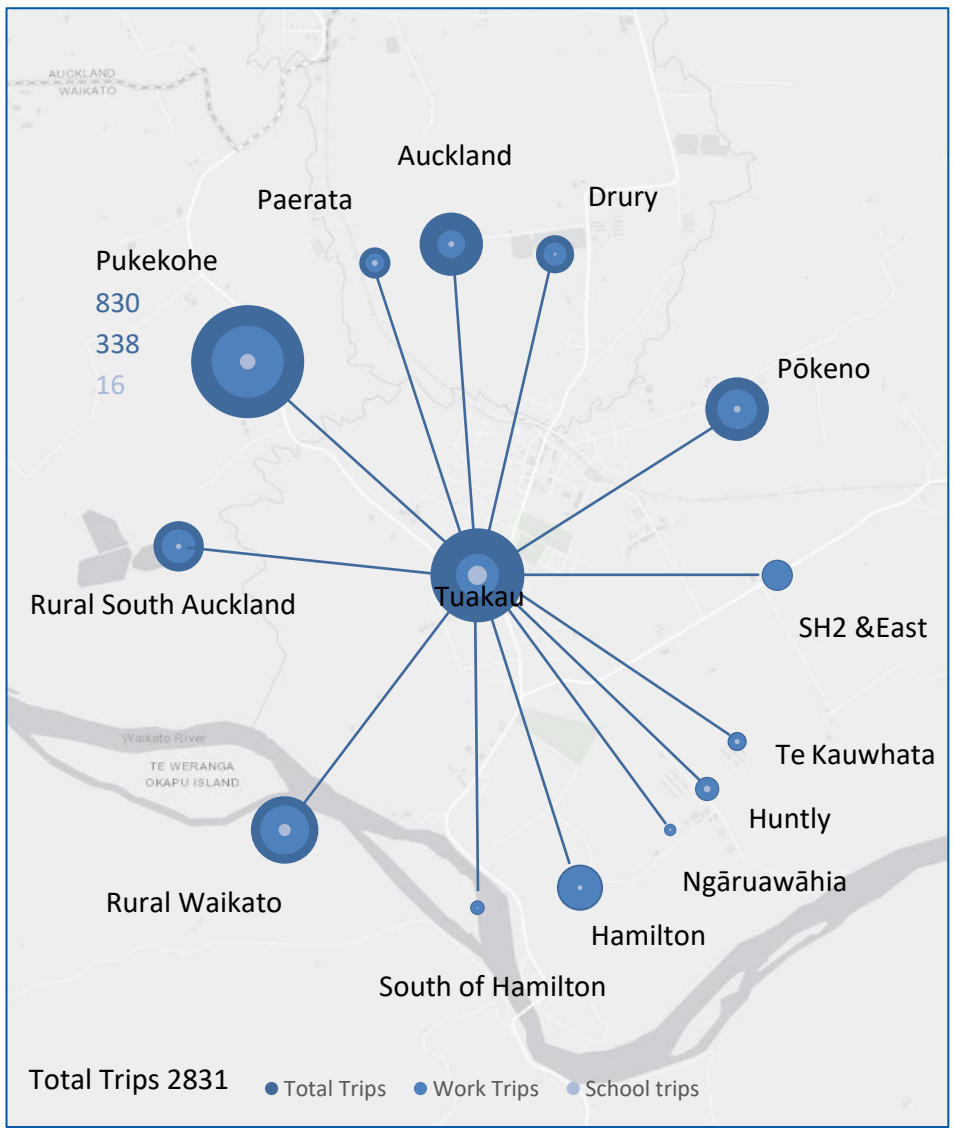


Figure 21: Morning peak period trips originating in Tuakau in 2013 (top) and forecast for 2051 (bottom) based on the WRTM





Currently, the majority of Tuakau's trips to work and school are internal, to Auckland or to Pukekohe (refer to the census data in Figure 13 previously). Both the MSM and WRTM appear to overestimate the proportion of trips to Pukekohe, and underestimate internal trips. This may be the result of different area definitions between census data and the models.

In terms of forecast trips, the MSM predicts considerable growth in trips for all purposes to Pukekohe and Auckland, and few trips elsewhere. The WRTM predicts growth in trips to Pukekohe only, with some increases to Pōkeno and rural Waikato areas. This may in part be due to the differences in land use assumptions, with the WRTM based on higher employment and lower population forecasts within Tuakau than assumed in MSM, but is also likely to relate to the fact the majority of Auckland is represented by a single external zone in the WRTM.

5.3 Pōkeno

Figure 22: Morning peak period trips originating in Pōkeno in 2016 (top) and forecasted for 2048 (bottom) based on the MSM

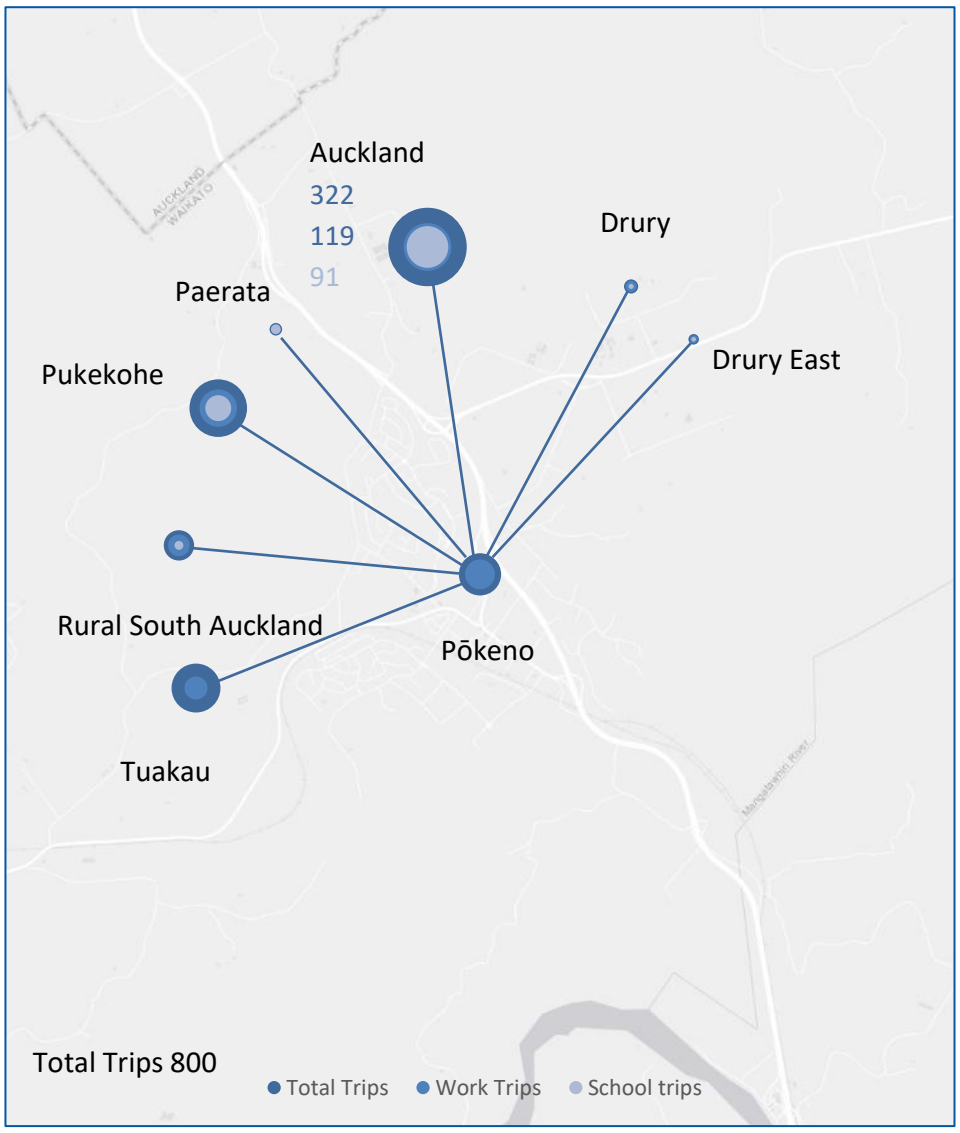
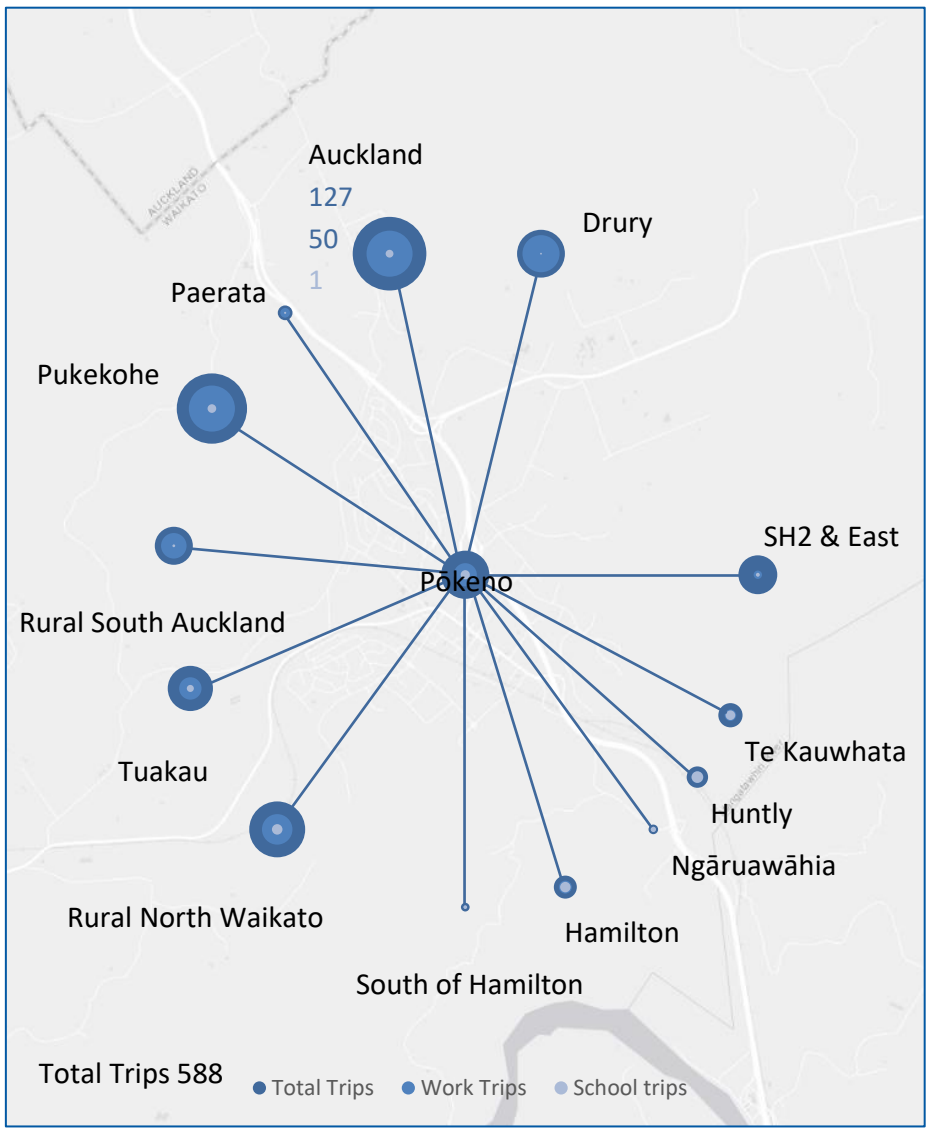
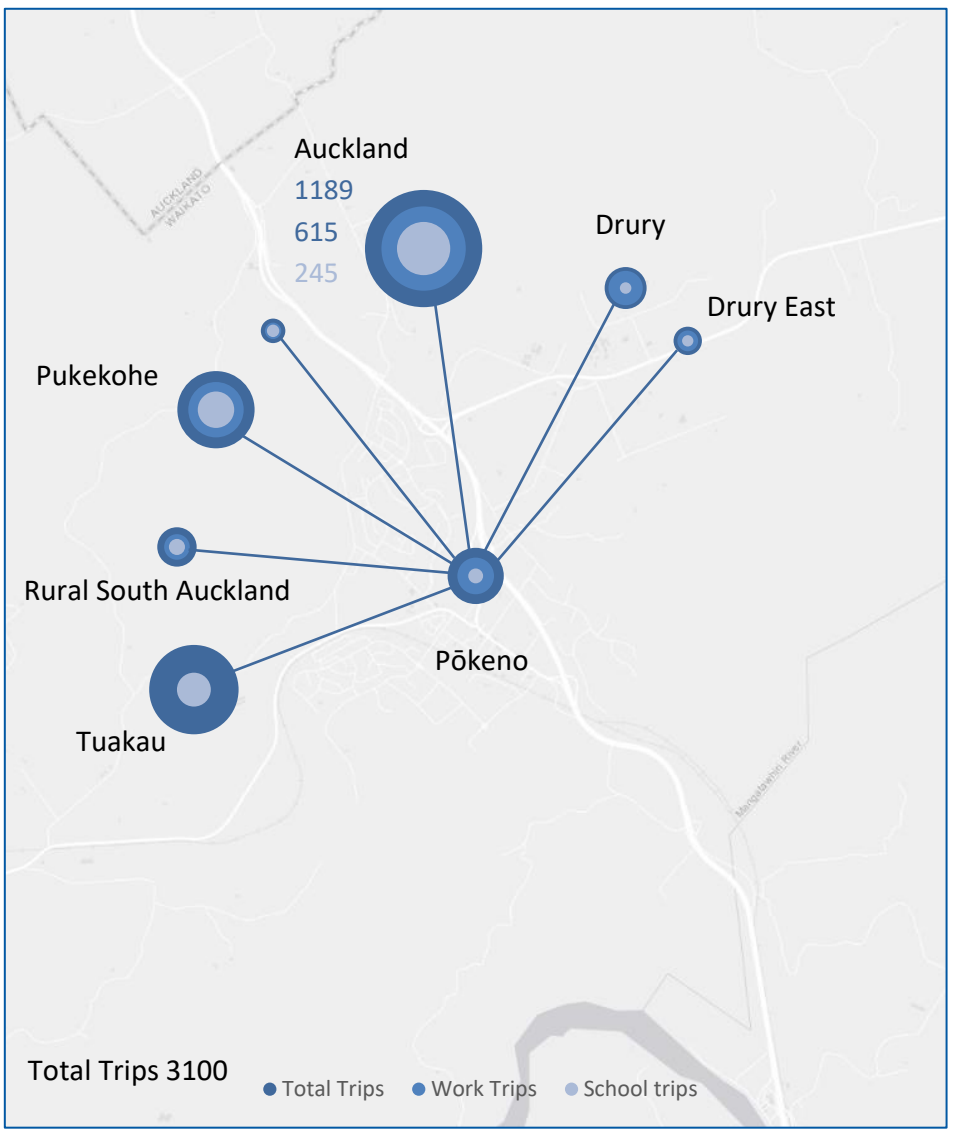
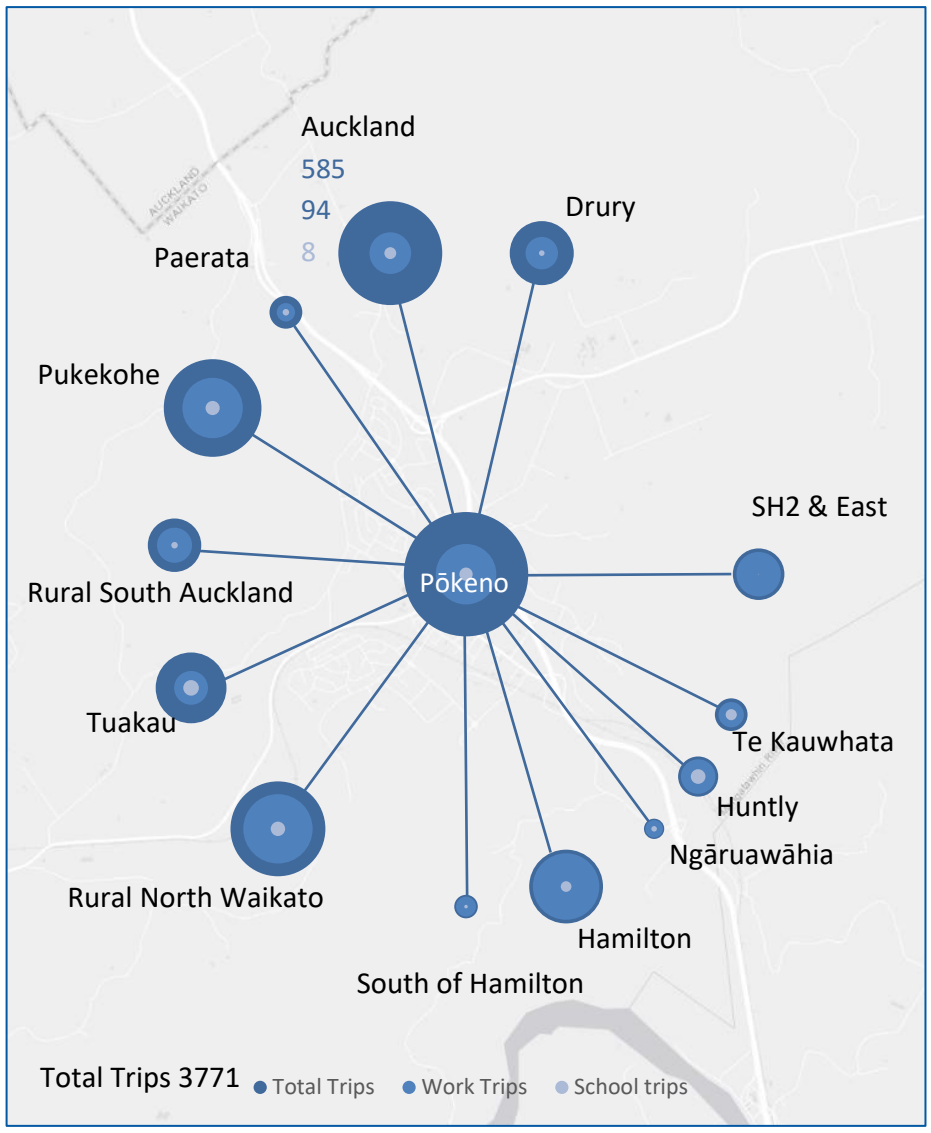


Figure 23: Morning peak period trips originating in Pōkeno in 2013 (top) and forecasted for 2051 (bottom) based on the WRTM





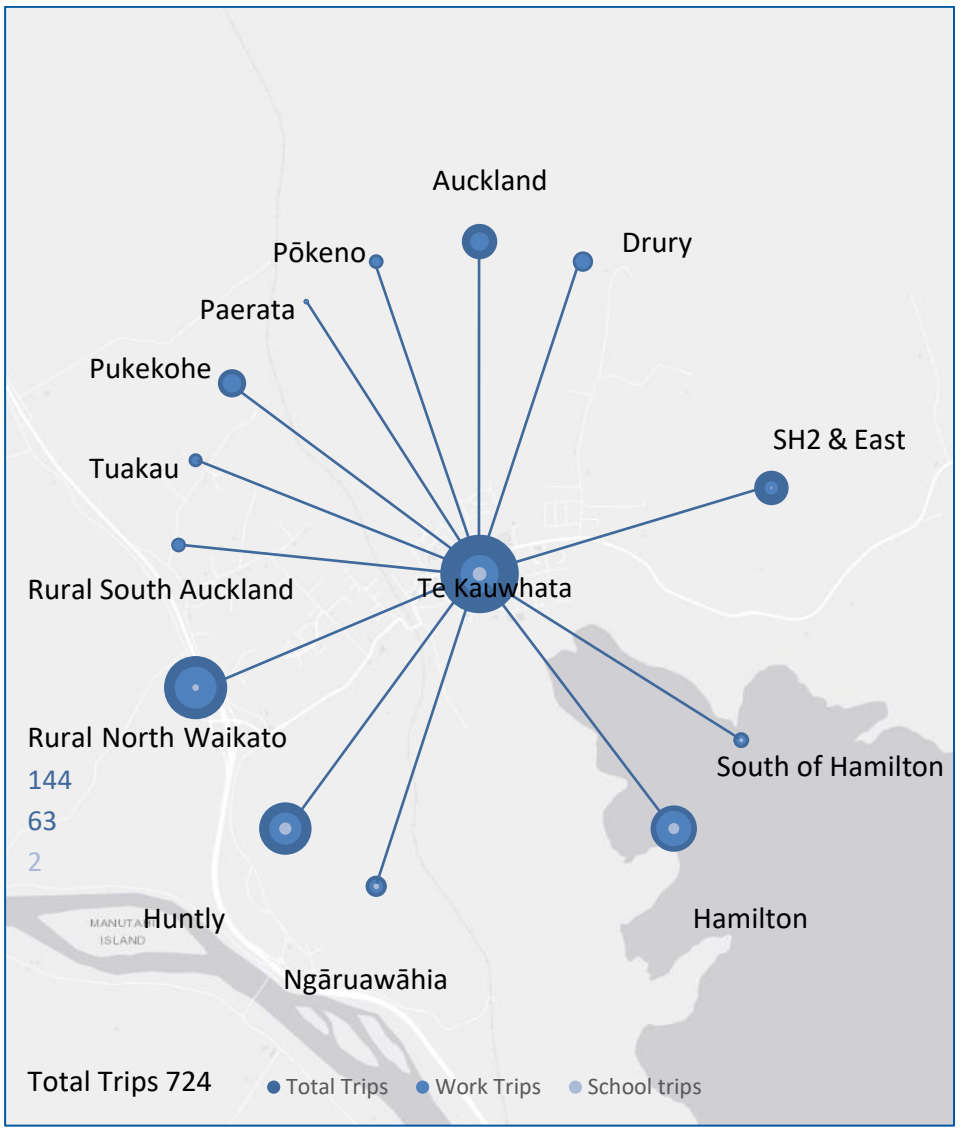


Currently, almost all of Pōkeno's trips to school are internal and trips to employment are to Auckland (refer to the census data in Figure 14 previously). Both the MSM and WRTM base models predict a more dispersed trip distribution. The forecast trip pattern in both models is predicted to be similarly dispersed. The MSM predicts substantial growth in trips to Auckland, Pukekohe and Tuakau – a result of the MSM's land use assumptions, which anticipate major population growth but little employment growth in Pōkeno. By contrast, the WRTM assumes greater employment growth in Pōkeno but less population growth than in MSM, and as a result, predicts more internal trips. Notably, almost all WRTM trips to Hamilton are predicted to be commute to work trips, with almost no trips to employment in Auckland. This seems an unlikely outcome, given existing commuting patterns and that Auckland is both closer and a larger employment destination than Hamilton. This may be due to the WRTM's geographical limitations.

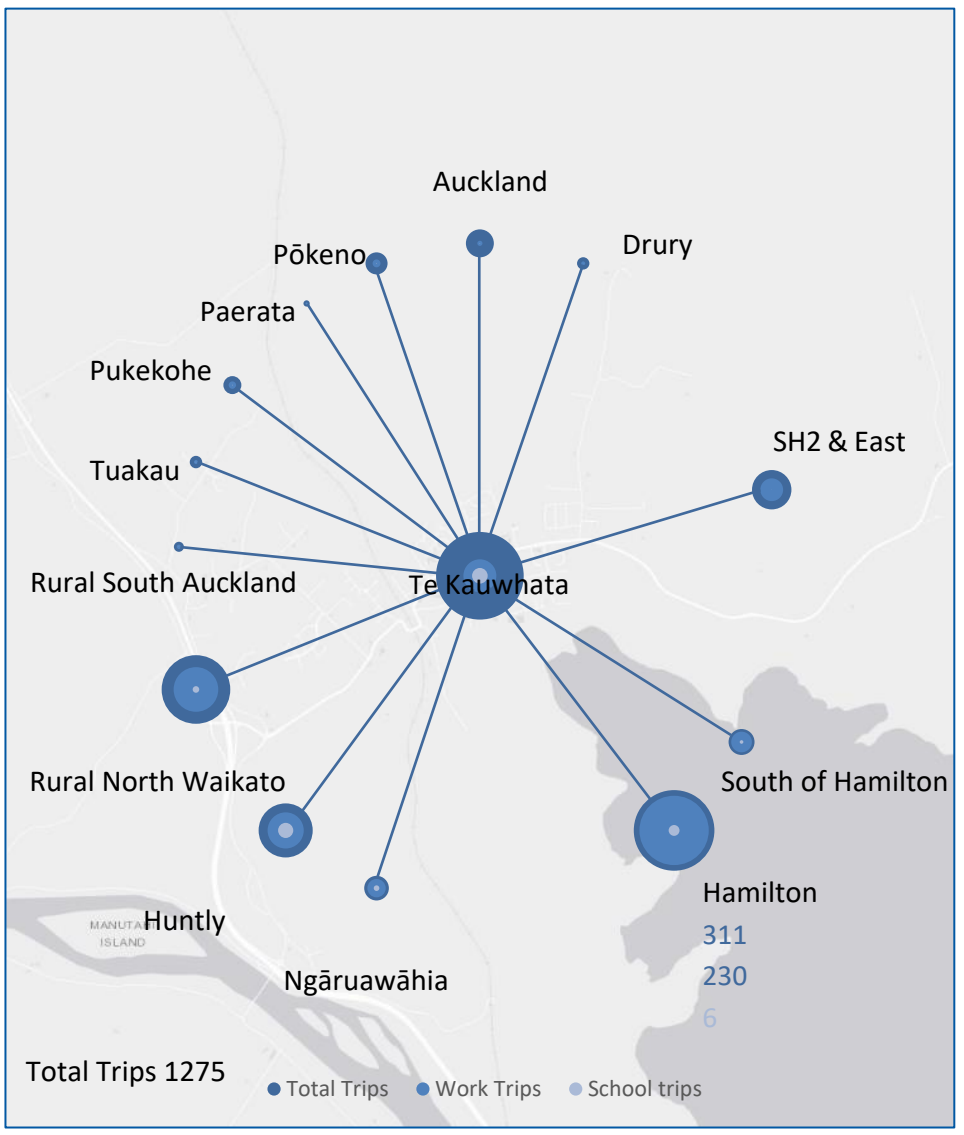
5.4 Te Kauwhata

Te Kauwhata not included in MSM

Figure 24: Morning peak period trips originating in Te Kauwhata in 2013 (top) and forecasted for 2051 (bottom) based on the WRTM



Te Kauwhata not included in MSM



Currently, almost all of Te Kauwhata's trips to school are internal, and almost all trips to employment are to rural areas (refer to the census data in Figure 15 previously). The WRTM base model broadly matches this, but also suggests trips to employment in Huntly and Hamilton. The WRTM also predicts that the majority of other trip types are internal within Te Kauwhata. This is a surprising outcome, given the small existing size of Te Kauwhata.

The WRTM predicts that Te Kauwhata's trip patterns will continue to be mostly internal and south facing to Hamilton, Huntly and to rural Waikato areas. Like Pōkeno, most trips to Hamilton are predicted to be commute to work trips.

6 POTENTIAL FOR MODE CHANGE

We are aware that the WRTM is a traffic model, not a multi modal model, and therefore corrections need to made to the traffic forecasts, both to reflect the updated land use forecasts set out in Section 3.3 above, and also to reflect the potential for mode change. This section of the report considers the potential for mode change. In addition, the model outputs are restricted to the morning peak, interpeak, and evening peak. Patterns during the morning and evening peaks are fairly similar, hence for the identified communities the morning peak period has been analysed.

6.1 Perceived cost of travel

Mode selection is a complex process based on a multitude of factors. These factors include availability of public transport services, car ownership, and the relative advantages of each mode depending on travel time, monetary cost, convenience, comfort, and safety. The perceived times and costs of travel are the main contributing factors for mode selection. This means that to facilitate mode shift from vehicles to active modes or public transport, the perceived time/cost of the latter must be lower.

However, the assessment of perceived times and costs is an extensive exercise and would normally be examined in a detailed study. Hence the following sections assume appropriate investment occurs to facilitate reductions in the perceived times and costs to encourage mode shift to walking, cycling and public transport. To assess the effects we have investigated similar regions in New Zealand with investment in alternative modes of travel. Given recent policy and planning documents commonality of prioritising mode shift, there is an expectation that mode shift is not only anticipated but compulsory to meet objectives of the Government Policy Statement and hence the Waikato Regional Land Transport Plan. This is further discussed in Section 6.6.

6.2 Appropriate investment to facilitate mode shift

For the purpose of this study, we have assumed appropriate investment to include:

- Walking and cycling networks that connect residential areas to key destinations, including schools, areas of employment, shops, parks and PT hubs, via safe, connected infrastructure. For example separated cycle infrastructure may be required on streets with either more than 3,000 vpd, or vehicle speeds over 30 km/h, plus traffic calming/low traffic neighbourhoods within residential areas, with safe pedestrian crossings throughout
- For North Waikato communities, it would also include a regional network connecting adjacent urban areas such as Pōkeno and Tuakau
- A PT network where door-to-door generalised cost of travel (include time, waiting, transfers and financial costs) is competitive with car travel.

6.3 The potential for active travel

People living in local communities will already be undertaking some trips by active modes, ie, on foot or by bike, within their neighbourhoods, but many trips are undertaken by car, as evidenced from the 2018 census data discussed below.

Within Tuakau, Pōkeno and Te Kauwhata, internal trips have the potential to be undertaken by active modes (walking, cycling and micro mobility) and this can be encouraged and enabled by appropriate infrastructure for these modes.

Some trips between Tuakau and Pōkeno, and between Tuakau and Pukekohe could be made by cycling/micro mobility, if appropriate facilities (as described in Section 6.2) are provided between these towns. These latter trips are in the order of 10 km each, which is longer than most people will consider cycling, but considered a realistic distance by e-bike or by other potential micro mobility devices.

Table 3 below summarises these morning peak period "short trips", to illustrate the potential for active mode travel.

Table 3: Morning peak period short trips in 2051 with potential to be by active mode

	Internal trips	Other short trips	Total short trips	Short trip proportion of all trips
Tuakau	573	Pukekohe: 830 Pōkeno: 262	1,666	59%
Pōkeno	838	Tuakau: 272	1,110	29%
Te Kauwhata	367	None	367	29%

The take up in active mode travel will be lower than the short trip proportions identified above, due to factors such as

- Trip types, with vehicles needed for certain trip types to carry goods and people
- Trip lengths, with the shortest trips having potential to be by foot and other short trips having potential to be cycled
- An individual's level of mobility, access to a bike and societal norms around cycling, among other factors.

Nonetheless, the above short trips provide a useful indicator that there will be potential for increased active mode trips within and between the three towns, encouraged and enabled by appropriate infrastructure and, most importantly, provided that sufficient schools, jobs, local centre shops/ amenities and recreational opportunities supporting the local community's needs are located within these towns.

In the 2018 census, 3% of commute to work trips from Tuakau, Pōkeno and Te Kauwhata were on foot, while 0.3% of these trips were by bike. By contrast:

- A 7% cycle to work mode share was recorded in Nelson, and 6% in Christchurch, both cities that have invested in cycle infrastructure in the years prior

- Within both cities, cycle mode shares between 10% and 17% were recorded in census area units with better (but still incomplete) cycle networks
- Nationally, 6% of commute trips were by foot and 2.2% by bike, with much higher walking mode shares in urbanised areas

With significant greenfield growth expected within Tuakau, Pōkeno and Te Kauwhata, there is the opportunity to provide walkable and cyclable communities with safe active mode infrastructure. If best practice active mode infrastructure is constructed, we consider active mode shares of 10% or more very achievable within all three towns, provided that schools, jobs, shops, community services/amenities and recreational opportunities are included along with housing development.

There is also the potential for first/last leg of public transport trips to be by active modes, if a network of active mode infrastructure and public transport services is provided. This will also help enable increased use of public transport, as it can be the difference between being able to safely get to and from public transport stops and stations without the need for a car (or second car).

The mode share figures set out above assume proportional investment into cycling infrastructure.

The purpose of analysing journey to work data for this section is based on the available Stats NZ data which provides mode share for journeys to work as a point of comparison.

We also note the mode share of 10% is an estimate based on the above comparisons. Although Nelson and Christchurch have higher proportions of local employment, both cities are also geographically much larger than the North Waikato towns, with longer commute trip lengths. So there are pluses and minuses, in arriving at the 10% estimate.

6.4 The potential for public transport

Existing public transport services[5] include:

- Hamilton-Te Kauwhata 21 Northern Connector
- Hamilton-Pukekohe (once per day) via Te Rapa, Ngaruawhia, Huntly, Te Kauwhata, Meremere, Pōkeno, Tuakau
- Pōkeno to Pukekohe 44 service, connecting to the rail station at Pukekohe
- Te Huia passenger rail service between Hamilton – Huntly - Papakura

Tuakau, Pōkeno and Te Kauwhata all lie on the North Island Main Trunk (NIMT) rail corridor, as do the other towns and cities considered in this study. While there are no existing passenger rail stations in many of these towns, there remains the potential to add them in the future. Also, Pōkeno and Te Kauwhata are close to SH1, opening the possibility for regional bus services to detour via these towns, either instead of rail connections, or before rail stations are provided.

[5] https://www.busit.co.nz/regional-services/Pōkeno-to-pukekohe/
https://www.busit.co.nz/regional-services/northern-connector/
https://www.tehuiatrain.co.nz/

Table 4 below summarises the morning peak period trips between towns that have the potential to be connected by public transport services.

Table 4: Morning peak period trips in 2051 with potential to be by public transport

	Trips to destinations potentially accessible by rail or bus		Total potential rail or bus trips	Potential rail or bus trip proportion of all trips
Tuakau	Drury: 94 Paerata: 63 Pukekohe: 830 Pōkeno: 262 Auckland: 260	Te Kauwhata: 24 Huntly: 38 Ngāruawāhia: 10 Hamilton: 138	1,720	61%
Pōkeno	Drury: 222 Paerata: 58 Pukekohe: 517 Tuakau: 272 Auckland: 585	Te Kauwhata: 58 Huntly: 87 Ngāruawāhia: 22 Hamilton: 295	2,120	56%
Te Kauwhata	Drury: 7 Paerata: 2 Pukekohe: 15 Tuakau: 7 Auckland: 37	Pōkeno: 23 Huntly: 140 Ngāruawāhia: 29 Hamilton: 311	370	45%

The existing public transport mode share for commute to work trips from Tuakau, Pōkeno and Te Kauwhata from the 2018 census is 3%. This is understandably low, given the limited public transport services to these towns currently.

An indicator of achievable public transport potential for these towns is the existing public transport mode share within the Greater Wellington Region, where rural towns are served by two regional rail lines. This is not dissimilar to the North Waikato towns, if reliable and frequent rail services were to be provided. Existing public transport journey to work mode shares within Greater Wellington are:

- On the Kāpiti line public transport mode shares are 19% from Paekākāriki (40 km to central Wellington), 16% from Paraparaumu and 17% from Waikanae (55 km to central Wellington)
- On the Wairarapa line public transport mode shares are 18% from Featherston (60 km to central Wellington), 15% from Greytown, 8% from Carterton, and 2% from Masterton (100 km from central Wellington)
- By comparison, Tuakau and Pōkeno are around 55 km from central Auckland and 70 km from Hamilton. Te Kauwhata is around 80 km from central Auckland and 50 km from Hamilton.

Distance is considered a more reasonable metric compared with travel time. as the latter is dependent on optimising the network. We can expect investment in PT to reduce travel times from origins within North Waikato, making it a more attractive mode compared to vehicle over time, particularly with

vehicle travel times likely to worsen given the expected increase in congestion as highlighted by Section 9.1.

As a comparison, it is known that over 50% of trips crossing the Auckland Harbour Bridge southbound in the morning peak period are by public transport. This is a result, to a significant extent, of the significant travel time advantage of buses using the Northern Busway, relative to the severe congestion in the adjacent traffic lanes, and also due to the level of car parking restraint within the Auckland CBD.

This North Auckland example may be of relevance to the North Waikato area, with severe congestion already apparent on the Southern Motorway, and with investment proposed in commuter rail from South Auckland (see below). However, it is apparent that the level of mode change is likely to be significantly different according to the ability of public transport to serve particular origins and destinations. That is to say, a 50% mode change may be possible for trips from an origin close to a rail station in North Waikato to a destination within the Auckland CBD (or other centres along the rail route, such as Newmarket). However, this is likely to be a fairly small proportion of all trips, and other trips with relatively less convenient public transport options are likely to have a smaller mode share.

Public transport mode shares for trips to work may be in the order of 20% or more, if appropriate rail services and stations or other forms of quality public transport are provided (see Section 6.2) that connect the North Waikato towns to employment areas in Auckland, Manukau and Hamilton. Integrating facilities for people walking and cycling to public transport stops and stations will help enable people to use public transport services. Overall, 15% public transport mode share for all trip types[6] could be achievable.

Without significant investment in public transport, it is reasonable to expect that the majority of the above trips would be by private car, as only those trips between Tuakau and Pukekohe and between Tuakau and Pōkeno would be realistic active mode trips, and that is only if facilities for cycling are provided.

6.5 Changes in Transport Provision

There is a range of transport projects that will change the multi modal provision of transport in the area.

6.5.1 Improvements to State Highway 1: Southern Motorway

As part of the NZTA's Southern Corridor Improvements (SCI) project, State Highway 1 through South Auckland has been widened to three lanes in each direction between Papakura and Hill Road, and to four southbound lanes from SH20 to Hill Road. Also, a fourth northbound lane is proposed from Hill Road to Manukau. This was consented but not constructed as part of the SCI project.

Construction has now started on the next phase of work on the Southern Motorway, from Papakura to Bombay. The works under construction are from Papakura to Drury, with works consented to south of

[6] Based on the NZ ratio of public transport mode share for trips to work (7.3%, census 2018) to that for all trip types (2.5%, Household Travel Survey 2015-18), and recognising that the Household Travel Survey mode share is low as it excludes public transport trips over 60km or 1 hour, and includes pedestrian legs of multimodal trips

Drury. Further works, from south of Drury to Bombay, have recently been removed from the Government's NZ Up programme, although presumably these works could still proceed at some time.

6.5.2 Improvements to State Highway 1: Waikato Expressway

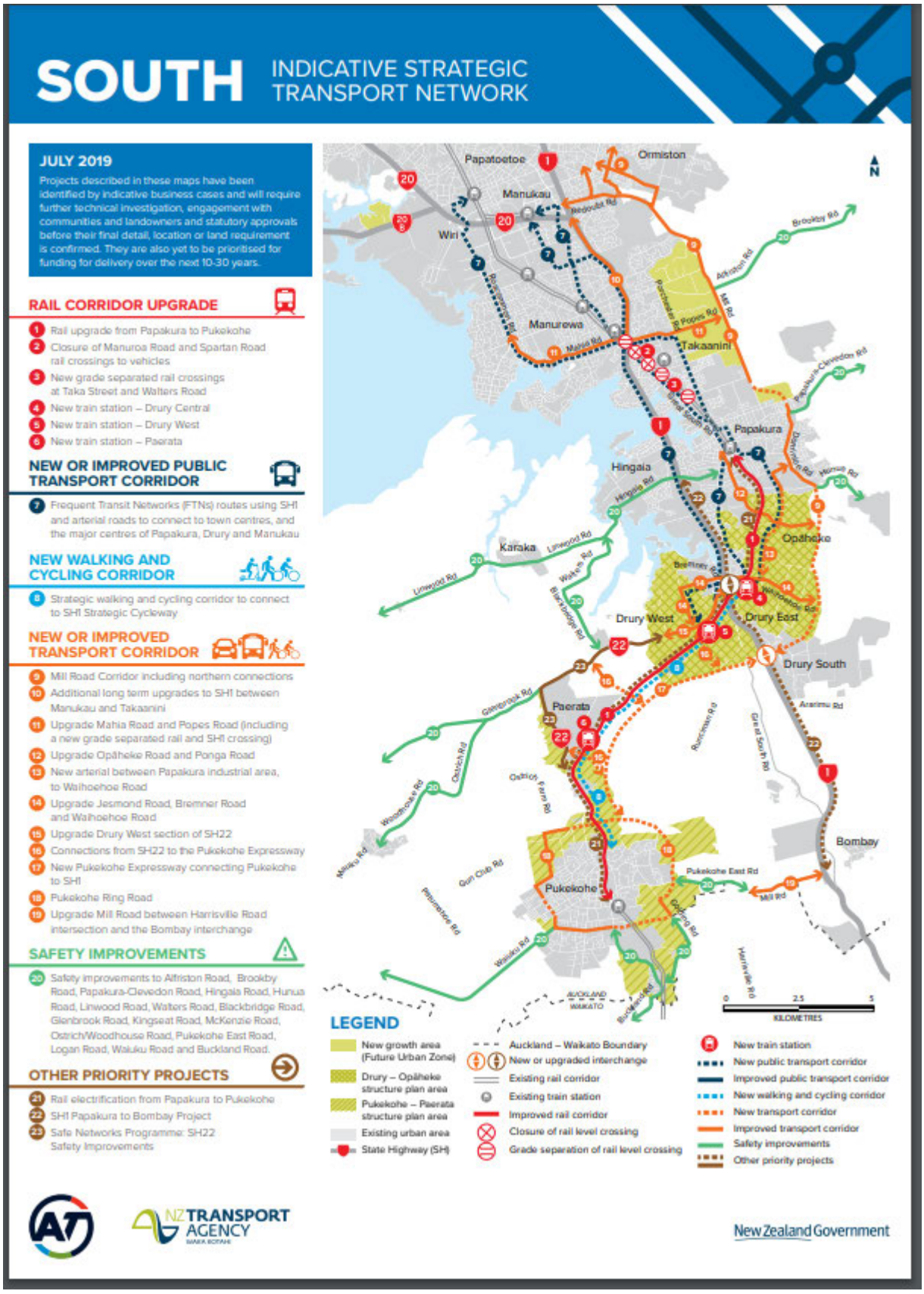
Significant progress has also been made to improve the Waikato Expressway. Improvements to sections as far south as Te Rapa have been completed, and the Hamilton Section is set to be completed in 2022.

While the northern sections of the Expressway are complete, further works may be required in due course, for the section of SH1 between Hampton Downs and Bombay in particular. Such improvements would include easing the alignment (to increase the design speed), the elimination of all right turns across the main carriageway from minor roads, elimination of private accesses, and provision for pedestrians and cyclists, in order to convert the route from "Expressway" to "Motorway" standard. This would require the development of a secondary road network, to accommodate the minor road and private access movements, and to provide for pedestrians and cyclists.

6.5.3 Supporting Growth

The North Waikato sits immediately south of the area considered by the southern area of Auckland's "Supporting Growth" project. The recommended network for South Auckland, as a result of that project, is shown below in Figure 25.

Figure 25: Auckland's Transport for Future Urban Growth: Southern Area



The projects of particular relevance to the North Waikato area are as follows:

- The development of a new north south corridor between Manukau, Drury and Pukekohe (item 9, Mill Road, and item 17, termed the "Pukekohe Expressway"). The Mill Road project was recently rescoped as part of the NZ Up project. It is now to be a smaller scale project, with a focus on addressing safety issues. It is expected to involve an upgrade of two lanes instead of four between Flat Bush and Alfriston tying in to the existing urban Redoubt Road dynamic lanes. There will also be targeted safety improvements between Alfriston and Papakura. It is conceivable that the southern sections (south of Papakura) may still progress at some stage, but clearly there is no commitment
- It will be noted that the above concepts only extend as far south as Pukekohe, although item 18 also refers to a Pukekohe Ring Road. However, item 20 refers to a number of safety improvements, including the connections to North Waikato
- Electrification of the southern rail line, from Papakura to Pukekohe (item 21), forms part of the Auckland Metro Rail Programme component of the NZ Up programme, and it is to be progressed in the short term
- Further investment in rail includes the removal of level crossings (items 2 and 3). In addition, the provision of an additional track, further to the north, forms part of the Auckland Metro Rail Programme component of the NZ Up package. This will provide the "step change" in capacity, allowing an increase in train frequencies, and the third track will allow the separation of passenger from freight trains
- Additional rail stations are proposed at Paerata, Drury and Drury West (items 4-6).

6.5.4 Public Transport

There has been strong community interest in rail for some time, with interest in commuter rail services through North Waikato. The Te Huia train service from Hamilton to Auckland came into operation during early 2021, providing two northbound services in the morning and two southbound services in the afternoon. These stop at Huntly and terminate at Papakura, where passengers change onto the existing Auckland commuter rail services. This means that these services currently bypass North Waikato. Investigations are progressing into further inter city services.

In addition, a draft North Waikato public transport review was carried out by Waikato Regional Council (and others), which considered the need for improvements to public transport in the North Waikato. Indeed, that study concluded that "improving public transport is key for the connectivity and growth of these towns", and the draft recommendations of the study (i.e. these proposals may not yet be committed) are as follows[7]:

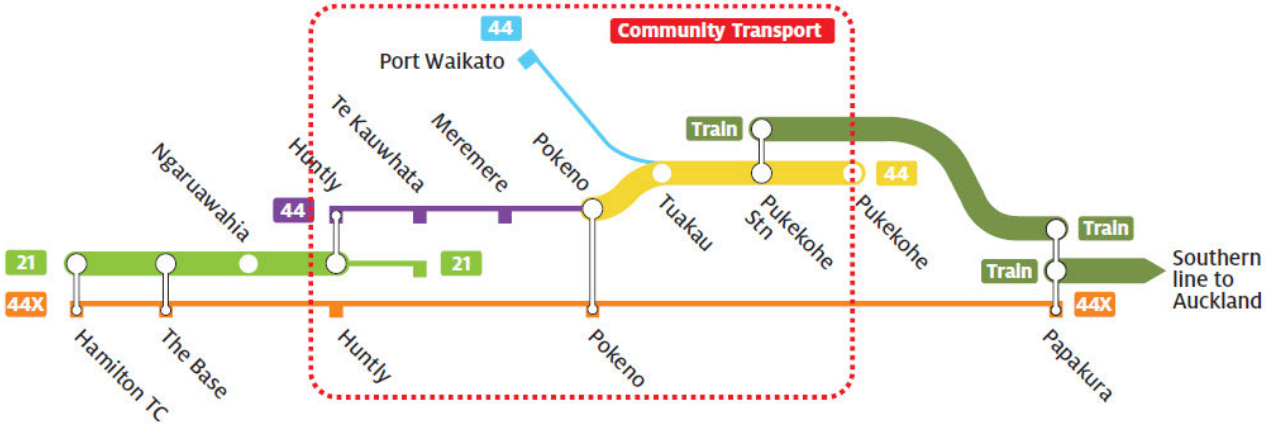
- Pōkeno to Pukekohe, via Tuakau: This service will provide key connections for Pōkeno and Tuakau residents to Pukekohe, both in peak and off peak times. This bus would replace the current Auckland Transport service between Tuakau and Pukekohe

[7] Waikato District Council and Waikato Regional Council (2016 or 2017 (Undated)), "North Waikato Public Transport Review – Draft for Discussion Only". We are unclear whether these is a subsequent update to this review

- Huntly to Pukekohe: This would extend an existing Northern Connector bus through to Pukekohe, once a day, in the off peak, Monday to Friday, providing middle of the day connectivity between Huntly, Rangiriri, Te Kauwhata, Merememe, Mercer, Pōkeno, Tuakau and Pukekohe
- Te Kauwhata to Hamilton: this would extend a current Northern Connector bus service to Te Kauwhata, for one return trips in the peak weekdays, providing access for Te Kauwhata residents to Huntly and Hamilton for school, tertiary education and work
- Hamilton to Papakura: this would be a new route designed to provide fast and direct commuter access between Hamilton and Auckland
- Port Waikato to Pukekohe: this would either retain the existing once a week Auckland Transport service, or it would replace the timetabled bus with a community transport option
- Community Transport: a North Waikato community transport scheme could operate in a similar fashion to the Community Vehicle Trusts in Canterbury. This would generally cater for elderly and less mobile residents as well as school groups, sports groups and all members of the community.

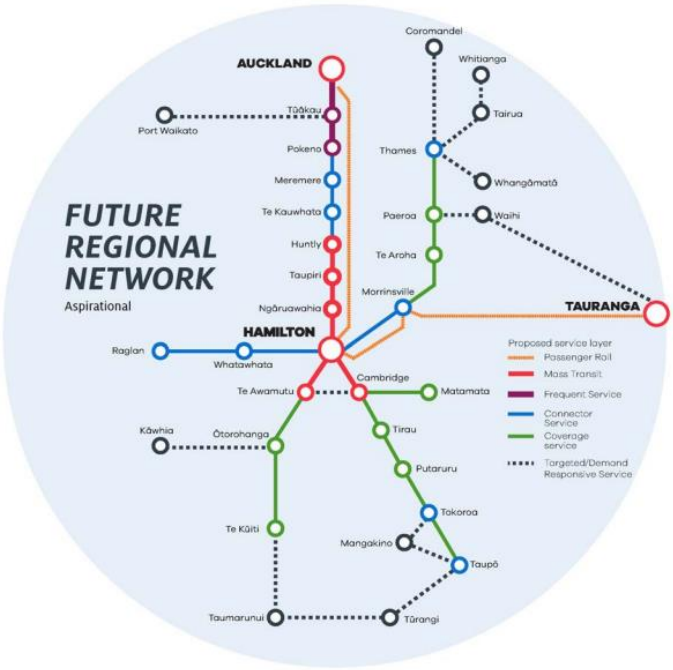
These potential services are shown in Figure 26 below and the regional future public transport network in Figure 27.

Figure 26: Potential North Waikato Public Transport Bus Services[8]



[8] Retrieved from North Waikato Public Transport Options Draft in October 2021https://fyi.org.nz/request/8494/response/27973/attach/3/Attachment%201%20NW%20options%20discussion%20paper%2018%20May%202017%20optimised%202.pdf

Figure 27: North Waikato Public Transport future public transport network concept[9]



6.6 Government direction and policy

The Climate Change Response (Zero Carbon) Amendment Bill[10] was passed in 2019. The bill sets a domestic greenhouse gas emissions reduction target for New Zealand to reduce net emissions of all greenhouse gases (except biogenic methane) to zero by 2050.

In response to the Zero Carbon bill, the He Pou a Rangi Climate Change Commission advised the Government in May 2021 on climate change action in New Zealand. That advice included the following recommendations to reduce transport emissions:

- Reducing the reliance on cars (or light vehicles), and supporting people to walk, cycle or use public transport
- Rapidly adopting electric vehicles
- Decarbonise heavy transport and freight, by moving more freight by sea and rail
- Encourage an urban form that minimises the need to travel long distances

The Government Policy Statement on Land Transport (GPS) sets out the government's transport investment priorities over the 2021-31 period. The GPS is the government's main lever to ensure investment in land transport by Waka Kotahi and local government reflects government priorities. The government's commitments make it clear that transformation of the land transport system is a priority.

[9] Retrieved from Waikato Regional Public Transport Plan 2018-2028 *Mahere Hukihuki Waka Tūmatanui Ā Rohe O Waikato 2018-2028* in October 2021 https://www.waikatoregion.govt.nz/assets/WRC/Council/Policy-and-Plans/Transport/RPTP/DRAFT-RPTP-2018-2028.pdf
[10] https://www.legislation.govt.nz/act/public/2019/0061/latest/LMS183736.html

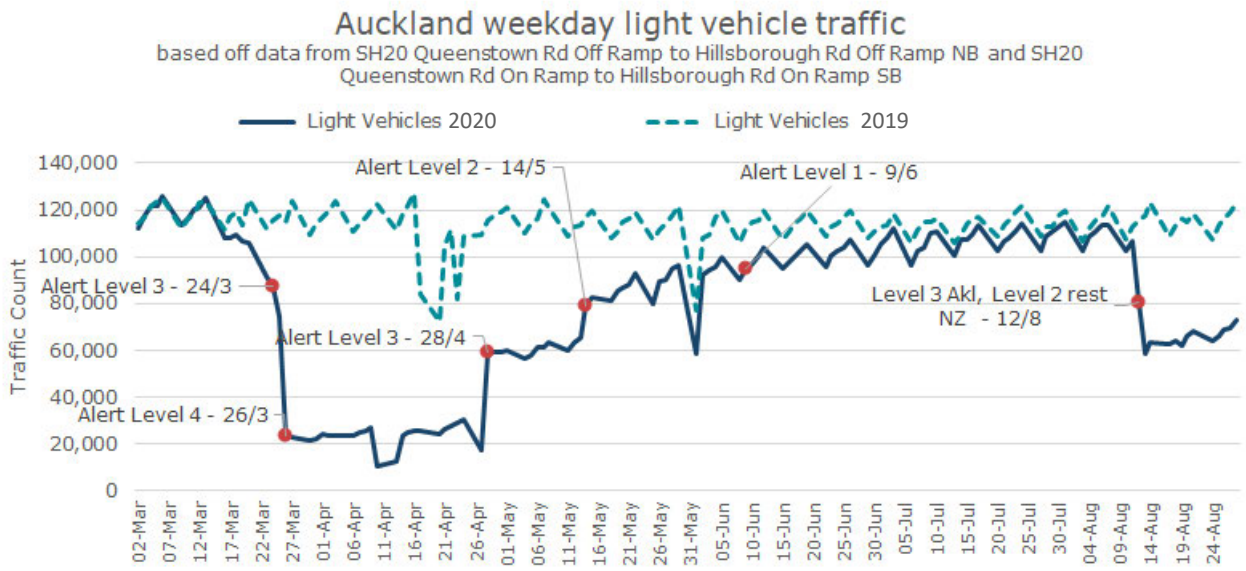
The GPS 2021 prioritises four strategic outcomes relating to safety, better transport options, improving freight connections, and climate change.

6.7 The potential for reducing trips

New Zealand witnessed a change in travel behaviour because of Covid-19 restrictions, with a number of people still working from home some or all of the time.

Data indicates that Auckland traffic in August 2020 was 61.4% of traffic at the same time in 2019, and when compared to the previous week there was a 5.7% increase in light traffic and a 4.5% increase for heavy traffic.[11] However, Auckland was at Alert Level 3 at this time and the rest of NZ was at Alert Level 2.

Figure 28: Influence of Alert Levels on Auckland Weekday light vehicle traffic



Other cities, including Wellington, Christchurch and Dunedin had returned to similar traffic levels.

While some people can choose to work from home and therefore reduce trips on the road, unless there is an incentive to do so, or a disincentive to travel, then the numbers of people working at home by choice might not result in a meaningful reduction in traffic during peak times, albeit it may result in a slight reduction of the peak duration.

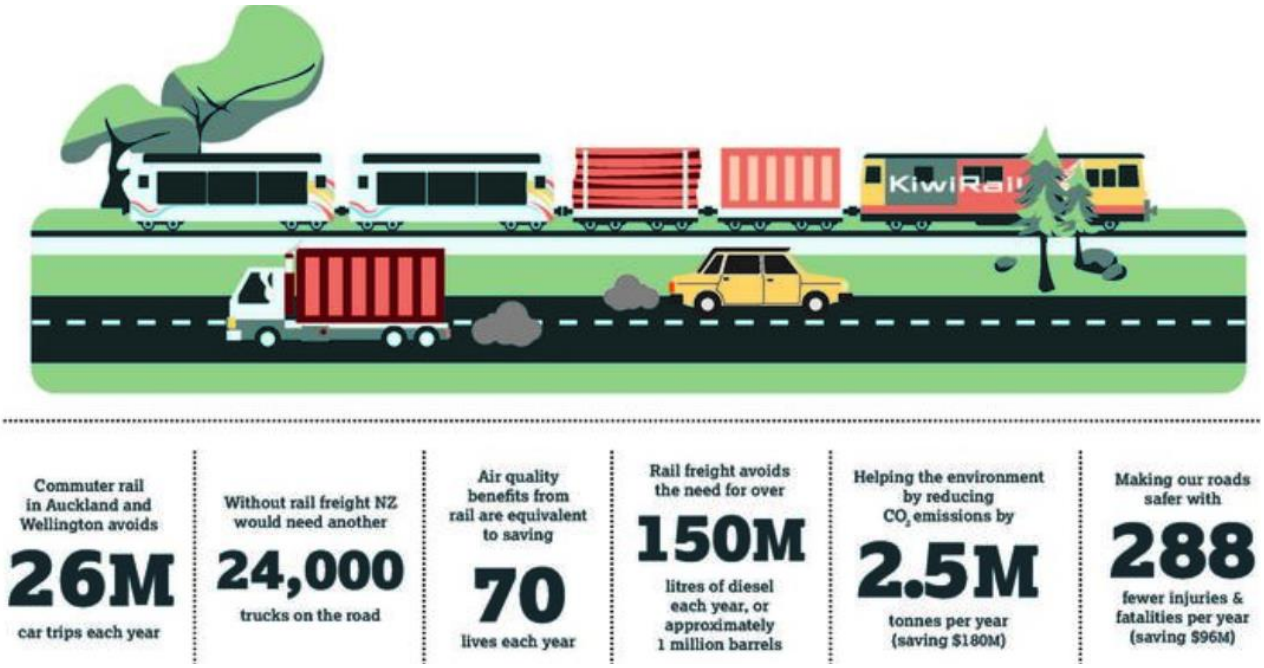
6.8 The potential for freight travel to change to rail or coastal shipping

The government's NZ Rail Plan[12] identifies that by 2052 freight tonnage in NZ is expected to increase by almost 40%. Significant investment is highlighted, with investments including double tracking Auckland to Hamilton and upgrading tracks to allow more weight to be carried across much of the country. Additional electrification could be installed on heavily used routes.

[11] https://www.nzta.govt.nz/about-us/coronavirus-disease-covid-19-services-update/data-and-research/weekly-traffic-count-information/

[12] https://www.transport.govt.nz/area-of-interest/infrastructure-and-investment/the-new-zealand-rail-plan/

Figure 29: The potential effect of investment into freight mode shift



Increased coastal shipping would help to reduce freight carried by road. Currently ships carry freight and bulk cargoes (eg oil, cement, fertiliser) along the New Zealand coast and between the North and South Islands. The NZ Shipping Federation states[13] that it is estimated that 15% of New Zealand's inter-regional freight is carried by sea and that shipping is a critical component of our domestic transport network. By comparison, in Japan, a country with a similar geography, more than 30% of freight is carried by sea.

As the MSM and WRTM were developed prior to the focus on a more mode-neutral transport investment process, it could be reasonable to assume that there could be less road based freight than is predicted in the models. We have therefore carried out as sensitivity test on the traffic forecasts in Section 9 below, which assumes higher quantities of freight trips are moved by rail or shipping.

6.9 Community Attitudes to Existing Travel Issues

Household travel surveys were undertaken in July 2016[14]. The main feedback from the community to the surveys was as follows:

- There is a lack of public transport in the North Waikato area. This was identified by 42% of respondents as being the main transport challenge for their household
- People in these communities have limited transport choices. 10% of respondents had limited or no access to private cars, due to disabilities or age
- There is a willingness to use public transport if available. 63% of respondents stated they were likely to use public transport for shopping or leisure purposes, 55% for health services and 48% for work related trips, if public transport was available

[13] https://nzsf.org.nz/about-shipping-in-new-zealand
[14] We are not aware of any more recent surveys

- There is a strong community interest in passenger rail. Rail related issues were identified by 24% of respondents.
- 58% of persons responding from Pōkeno indicated that they would use a bus for travel to Auckland, if it was available
- Traffic congestion was named as the main transport challenge by 13% of respondents.

7 CONSIDERATIONS FOR TRANSPORT INVESTMENT IN NORTH WAIKATO

7.1 Walking and Cycling

The nature of walking and cycling networks will depend on the actual location of areas to be zoned for additional residential use, and the key connections that will need to be provided to serve those areas. The emphasis of this study is on land use changes which lead to the provision of additional local services. These land use changes will significantly increase the potential for increases in walking and cycling trips, within the North Waikato townships, and investment will be required **within** those townships to improve the likelihood of trips by these modes.

However, while the majority of walking and cycling trips are likely to be short distance trips, within townships, we note that key walking/cycling issues for longer distance trips include:

- The likely need for future walking/cycling connections at Pokeno, across SH1
- The likely need for future walking/cycling connections between Pokeno and Tuakau. This may be required to support students in particular, if there is only a high school in Tuakau and not Pokeno
- The likely need for future connections between Tuakau and Pukekohe and between Huntly and Te Kauwhata
- The likely need for future walking/cycling connections which remove all active mode trips away from SH1 (either along or across the State Highway). This will change from "very desirable" to "essential" if the State Highway is upgraded from an Expressway to a Motorway.

7.2 Public Transport

The key considerations relating to public transport affecting North Waikato include

- The destinations of trips, for people from North Waikato, noting that according to the travel survey, a relatively small proportion of all household trips is currently heading to Pukekohe (16%), and a greater proportion is heading to Auckland (47%)
- Electrification of the southern rail line as far south as Pukekohe and the provision of additional rail tracks, further north[15]
- Future stations at Drury/Drury West
- The future of possible further extensions of passenger rail, to Tuakau and Pokeno

[15] Funding is now committed as part of the Government's New Zealand Upgrade Programme

- Inclusion of a third main line on the NIMT to segregate freight and passenger rail, facilitating improved travel times, frequencies and services to North Waikato communities
- The completion and effect of the City Rail Link on improved travel times, frequency and services to North Waikato communities
- The extent to which public transport for the North Waikato should rely on bus rather than rail, given the relatively low, and dispersed population
- There may be benefit in providing bus priority measures, where general traffic congestion is encountered on a regular basis. For example, if bus services are provided from Pokeno to Papakura rail station, in the short term, then bus shoulder lanes could be provided along SH1, from around Drury to the Papakura interchange (see Figure 29)
- Clearly, improvements in local bus services and bus infrastructure (i.e. bus stops/shelters) will be required in the short to medium term, to meet the expected demand, and the proposals of the North Waikato Public Transport Review are identified in Section 6.5.4 above.

If passenger rail services to the North Waikato are unlikely in the short term (and maybe the medium term), then investment in public transport for trips between North Waikato and Auckland may include

- Supporting trips transferring to rail or bus, at Pukekohe (shown in black in Figure 30)
- Supporting trips transferring to rail further north, eg at Drury West. This could include park and ride at Drury/Drury West and/or bus services from Tuakau or Pokeno to Drury/Drury West (shown in red and blue in Figure 30, for Tuakau and Pokeno, respectively).

Figure 30: Public Transport Options (assuming rail passenger transport does not extend south of Pukekohe)



8 MANUAL ADJUSTMENTS MADE TO MODEL OUTPUTS

Following consultation with the Auckland Forecasting Centre and Waikato District Council particularly highlighting the edge of model effects, in conjunction with new land use forecasts, it was determined that for this study to proceed, manual manipulation of the trip matrices is appropriate.

We have made adjustments in two parts, firstly to update the WRTM trip distribution based on higher land use forecasts and secondly to include the potential effects of mode shift.

Mode shift to active modes is likely to reduce vehicle trips predominantly on the local road network. Hence to reduce vehicle demands on the State Highway network from increased active mode choice, land use changes that encourage greater trips within communities are required.

On the other hand, investment in public transport is more likely to facilitate reduction of longer distance vehicle trips on the State Highway network.

8.1 Adjustments based on land use forecasts

As highlighted in section 3.3, there are differences between the MSM, WRTM, and NIDEA land use forecasts. This has implications on predicted traffic volumes particularly on the State Highway network as discussed in section 9.1.

We have adjusted the WRTM model forecasts to converge with the MSM and NIDEA land use forecasts. To be conservative, we have assessed the higher forecast scenarios as previous high population forecasts for the Waikato District are often exceeded[16].

We have factored trip origins based on the absolute difference between population forecasts. For example, NIDEA forecasts around 2.3 times more growth in Pōkeno in 2051 compared to the WRTM, hence the trips have been factored proportionally. Trip ends have been factored based on the employment trend differences.

The annual daily traffic in these locations have been determined by factoring the 2 hour morning, evening and peak hour volumes from the WRTM, with relevant factors determined from local observed traffic flows. This enables analysis of average daily traffic flows rather than peak hour traffic.

This method has been validated by comparing the total trip increase to the total population difference.

Details regarding the methodology and assumptions are set out in Appendix B.

8.2 Adjustments based on mode shift

We have considered three scenarios to assess the effects of people changing the way they travel:

- Scenario 1 – a is a do minimum scenario where we expect travel mode proportions to remain consistent with the WRTM distribution, incorporating the new land use factors
- Scenario 2 – assumes that investment is made in public transport services and infrastructure, and in active mode infrastructure that will enable and encourage a greater adoption of public transport use by people living and working within the north Waikato study area. This scenario anticipates a mode shift away from regional car trips of 15%
- Scenario 3 – as per scenario 2 with additional investment to enable/encourage a greater reduction (25%) in regional car trips

The effects on traffic forecasts are discussed in Section 9.

[16] http://www.creatingfutures.org.nz/assets/Projections-Comparisons-finalOct2020.pdf

A fourth scenario, assuming a mode change in freight, is set out below.

8.3 Adjustments based on greater freight trips by rail

As noted in Section 6.8, the base traffic forecasts assume a continuation of current trends in terms of freight trips being predominantly carried by road, and there is high probability that this may change over time. The precise proportions of freight trips that may divert to rail will depend on numerous factors, including the nature of the freight goods, the location or origins and destinations (and proximity to rail facilities), the level of investment in rail and rail hubs, changes in policy and views in response to climate change and other environmental issues, and so on.

As such, we have provided a sensitivity test to the determine the effect of an increase in freight trips via rail on the State Highway traffic volumes. The existing heavy commercial vehicle composition is summarised below in Table 5 (refer to Figure 31 for location of data), with the expectation the existing HCV composition will remain similar for the future base scenario. The sensitivity test considers investment in rail that reduces the forecast HCV volumes by 50%.

Table 5: Existing HCV composition of key locations as described in section 9.1

Location	HCV% existing
SH1 north	13%
Mill Road	9%
SH2	12%
SH1 south	13%

9 FUTURE TRANSPORT CONDITIONS

Section 4 provided a brief description of the existing transport situation. This section considers how this situation is likely to change as a result of the future land use (identified within Section 3) and transport changes (identified within Sections 6 and 7).

9.1 Forecast State Highway traffic volumes

One of the key questions for this study relates to forecast traffic flows in the North Waikato District, and how further land use change will affect the current forecasts.

Current forecasts have been derived from WRTM, and as set out in Sections 5 and earlier in Section 6. We have considered how these forecasts may be affected by the following:

- A greater level of land use change than currently anticipated at the time that the WRTM forecasts were developed
- The potential effects of greater trips by active modes
- The potential effects of greater trips by public transport
- The effects of investment in transport, noting that this will clearly affect the likelihood of the above changes in active modes and public transport

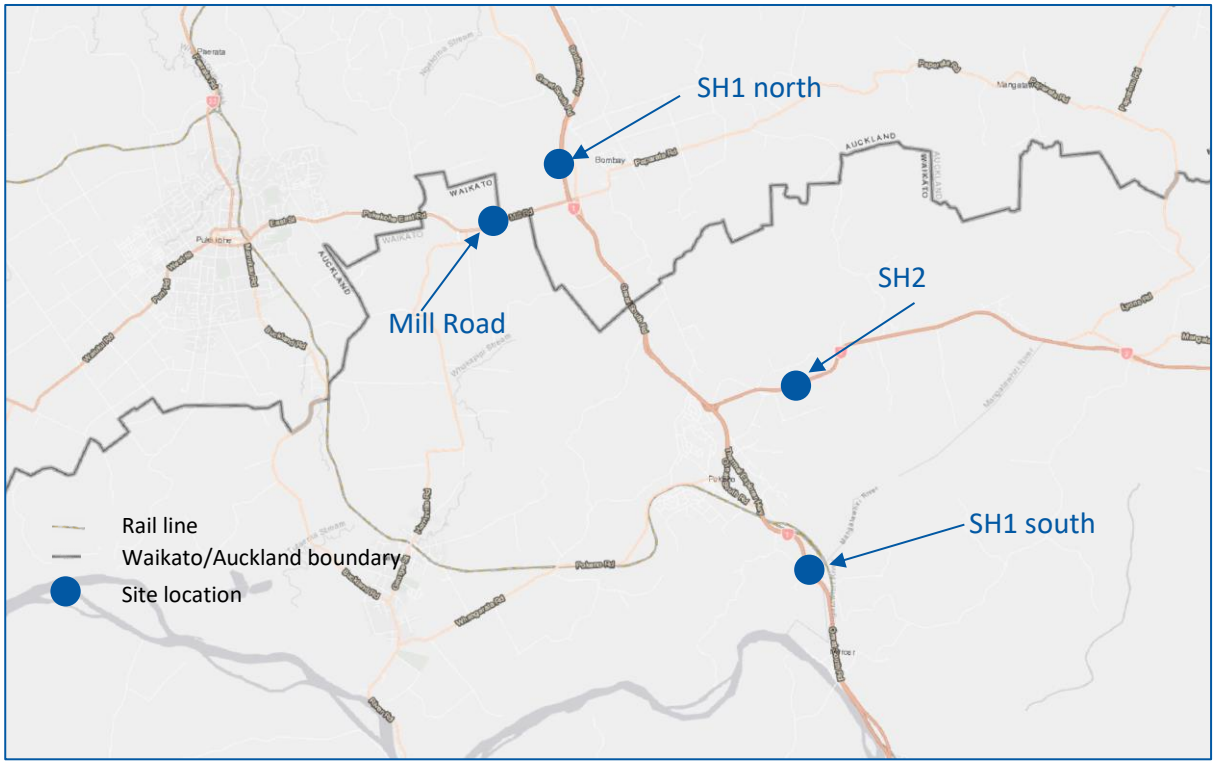
- The effects of greater proportions of freight being taken by rail (or coastal shipping).

The trips have then been aggregated based on likely routes from origins to destinations to determine the traffic volumes in key locations on the North Waikato/South Auckland portions of the State Highway network. The locations of traffic flows are:

- State Highway 1, north of the Bombay interchange
- Mill Road, west of the SH1 Bombay interchange
- SH2, east of the SH1 Pōkeno interchange
- SH1, south of Pōkeno.

The locations are indicated in Figure 31.

Figure 31: Indicative location of key traffic volumes on the State Highway network



The resulting forecasts are set out in Table 6 below.

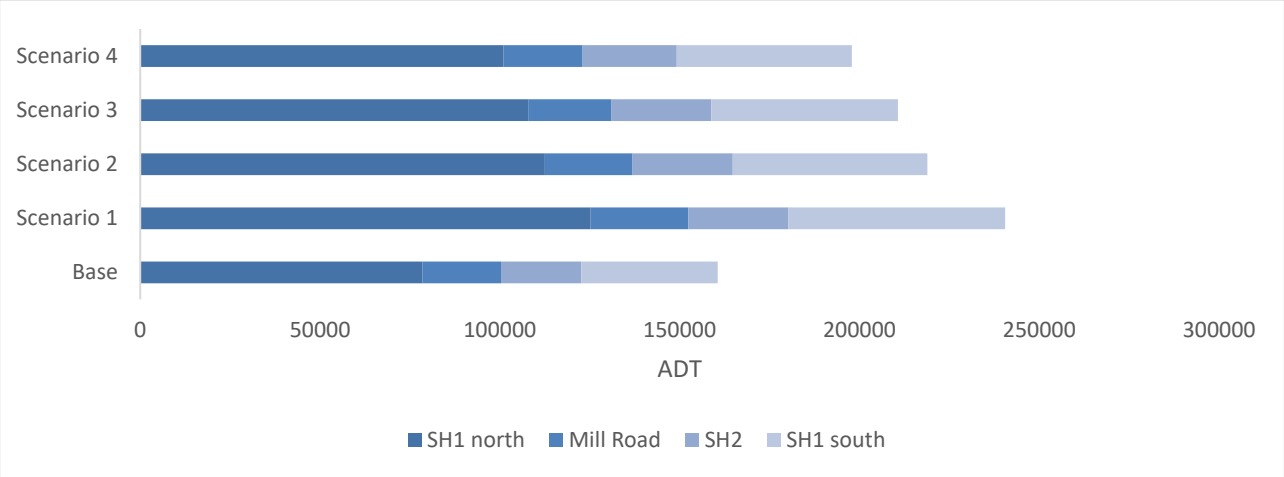
Table 6: 2051 forecast vehicle volumes of the State Highway network

	SH1 North	Mill Road	SH2	SH1 South
Base – WRTM unfactored output	78,500	21,800	22,300	38,000
Scenario 1 – WRTM land use updated	125,300	27,100	27,900	60,300
Scenario 2 – 15% mode shift	112,500	24,400	27,900	54,100
Scenario 3 – 25% mode shift	107,900	23,100	27,900	51,900
Scenario 4 – Scenario 3 plus 50% freight shift to rail	101,100	22,000	26,100	48,700

The forecast increases with Scenario 1 are clearly quite substantial, but these increases are in line with the increased population noted within Section 3.3.

Given the simplistic/speculative approach to updating the land use, we have supplied additional tests relating to the update factors in Appendix B.

Figure 32: ADT of key locations in each scenario



9.1.1 Local implications

From the above outputs we note that,

- The updated land use scenario increases the forecast flows substantially
- Scenarios 2 and 3 are predicted to reduce traffic flows (relative to Scenario 1), but substantial increases are still predicted. Greater reductions could be achieved if land use change leads to greater proportions of internal trips within townships
- Scenario 4 shows a marginal further reduction in traffic flows (relative to Scenario 3) due to freight mode shift. However the implications based on vehicle totals will have under-represented the effects on the network, hence section 9.1.3 below explores the changes in terms of passenger car equivalents.

9.1.2 Wider network implications

The above section indicated a maximum daily flow of around 60,000 vehicles/day on SH1, south of Pokeno, and this is within the capacity of a four lane highway. However, the forecast flows of 106,000 to 131,000 vehicles/day on SH1 north of Bombay are exceptionally high for a four lane road[17], and as set out within Section 7, widening of SH1 between the Drury and Bombay interchanges is **not** now proposed as part of the NZ Up package.

In order to consider the future operation of the Southern Motorway, we have taken forecasts from the SH1 Papakura to Drury Stage 1 study, which include the following AADT forecasts for 2038.

[17] As a comparison, the section of the Southern Motorway, between Papakura and Takanini, took daily flows of around 75,000 vehicles/day in 2013, prior to the works commencing to widen this section from two lanes per direction to three

Table 7: 2038 forecast vehicle volumes of the State Highway network north of the study area

SH1 section	AADT (vpd)	HCV (vpd)	HCV (%)
Takaanini to Papakura	137,800	15,500	11.2%
Papakura to Drury	111,600	12,700	11.4%
Drury to Drury South	86,700	10,300	11.9%
Drury South to Ramarama	87,200	9,500	10.9%
Ramarama to Bombay	84,600	10,300	12.1%
South of Bombay	74,300	9,400	12.7%

We note that the 2038 flows predict a similar volume as the original WRTM 2051 forecast. Hence we have added the difference of the forecasts for each scenario to produce Table 8.

Table 8: Combined 2038 and 2051 forecast vehicle volumes of the State Highway network north of the study area

	Takaanini to Papakura	Papakura to Drury	Drury to Drury South	Drury South to Ramarama	Ramarama to Bombay	South of Bombay
Scenario 1	188,800	162,600	137,700	138,200	135,600	125,300
Scenario 2	176,000	149,800	124,900	125,400	122,800	112,500
Scenario 3	171,400	145,200	120,300	120,800	118,200	107,900
Scenario 4	164,600	138,400	113,500	114,000	111,400	101,100

The above figures may be artificial demands. In reality the main bottlenecks along the corridor are north of Takaanini, and for example, northbound queues back from the congested sections would be extensive for much of the day with such high flows. As such, greater mode change, or greater change in travel behaviour (such as shortening of home to work trips or greater levels of internal trips within the townships) will be necessary.

9.1.3 The effect of Scenario 4 in passenger car equivalents

The section above noted that the forecast effects of Scenario 4, relative to Scenario 3, may be under-represented. We have rerun the numbers assuming all HCVs are three passenger car units (PCUs), leading to the following forecasts.

Table 9: 2051 forecast vehicle volumes of the State Highway network in pcu

	SH1 north	Mill Road	SH2	SH1 south
Scenario 1 – WRTM land use corrected	156,800	32,200	34,700	72,400
Scenario 2 – 15% mode shift	140,900	28,900	34,700	67,600
Scenario 3 – 25% mode shift	135,000	27,400	34,700	64,900
Scenario 4 – 50% freight shift to rail	113,800	24,000	29,400	54,800

The above table indicates that Scenario 4 will reduce the PCUs on the Southern Motorway, north of Bombay, by around 15%, relative to Scenario 3.

9.2 Freight

Section 6.8 highlighted the high volumes of heavy vehicles currently using the main roads in the North Waikato, including over 10% on SH1. The National Freight Demands Study undertaken in 2014 suggests that freight demands are projected to increase by 58% for road and 51% for rail over the next 30 years. The biggest increase is expected to be in and around Auckland, but the Waikato and Bay of Plenty regions are also expected to see significant growth. This not only confirms the amount of commercial activity in this area, but also highlights further demand that will be placed on the land transport system. However, clearly the relative proportions of increases in freight by road or rail will depend to a significant degree on the levels and types of transport investment.

9.3 Influence of key communities on State Highway traffic volumes

The following figures illustrate the broad origin and destinations of traffic in the key locations as described in Section 9.1. The figures indicate that the growth in Pokeno is likely to have the greatest impact on the State Highway network. The trend in traffic growth to and from Pokeno resembles substantial growth compared to the other communities which have a more gradual growth. The growth is likely to affect the distribution of traffic north of Bombay. For example, given the likely congestion along the SH1 north location, trips generated in Pukekohe are more likely to use SH22 to access SH1. However, given the coarse approach to this study, the figures are indicative only and a detailed approach will be necessary to determine the effects upstream of the study area. For each of the highlighted communities, we note that:

- Pukekohe is consistent between Scenarios, given no land use update has been applied
- Modest growth is expected from Tuakau, between the 2013 base and 2051 forecast. The update factor applied increases the trips marginally
- Pokeno in 2013 has around 5,000 daily trips towards Auckland, whereas the WRTM 2051 forecast is around 32,000. Subsequently, given the high land use adjustment indicated for Pokeno, Scenario 1 has around 71,000. We suggest that caution should be applied to this figure, as it may result from over-extrapolating from a low (2013) base, with significant land use change assumed within the higher land use update
- Modest growth is expected from Te Kauwhata. Overall although the trend is a reduction, which may be a result of a forecast trip distribution gravitating more to the south.

Figure 33: Origin and destination of traffic in key State Highway locations in 2013

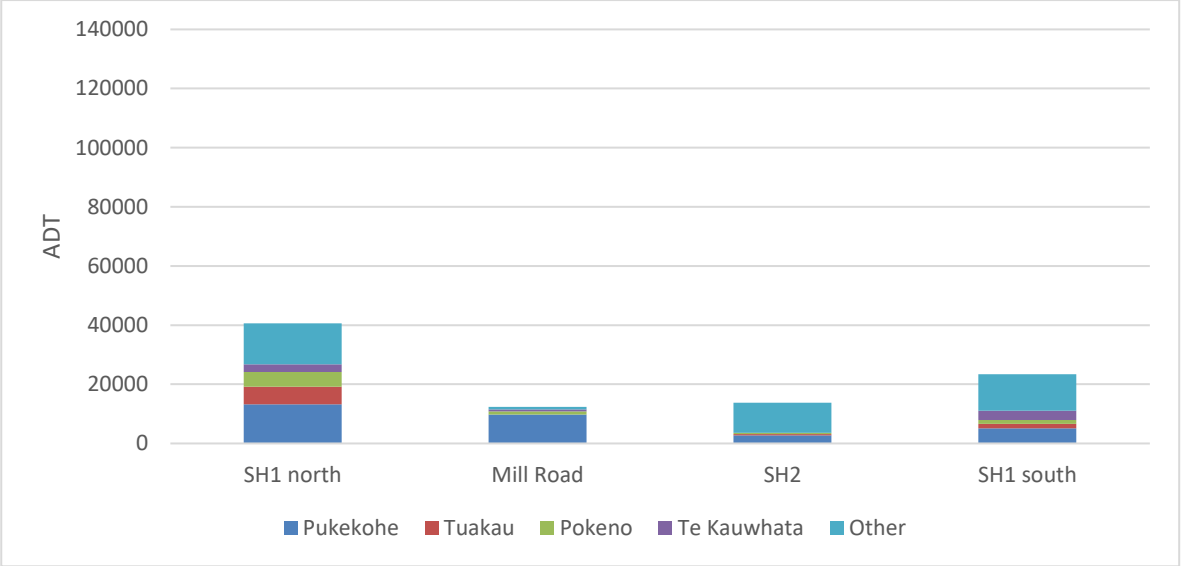


Figure 34: Origin and destination of traffic in key State Highway locations in forecast year, Base WRTM 2051

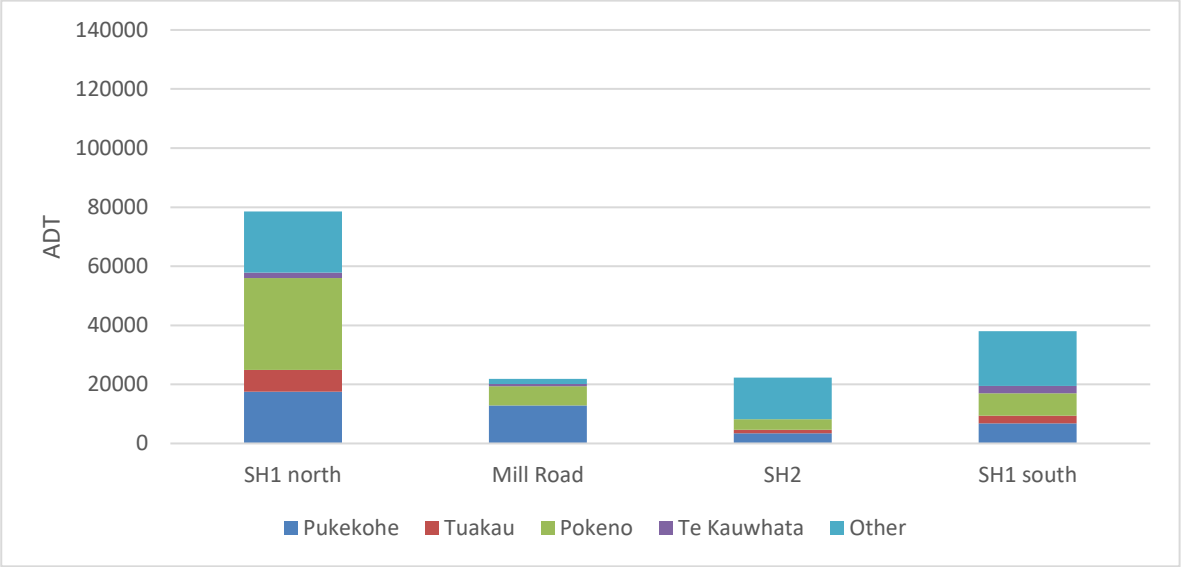


Figure 35: Origin and destination of traffic in key State Highway locations in forecast year, Scenario 1

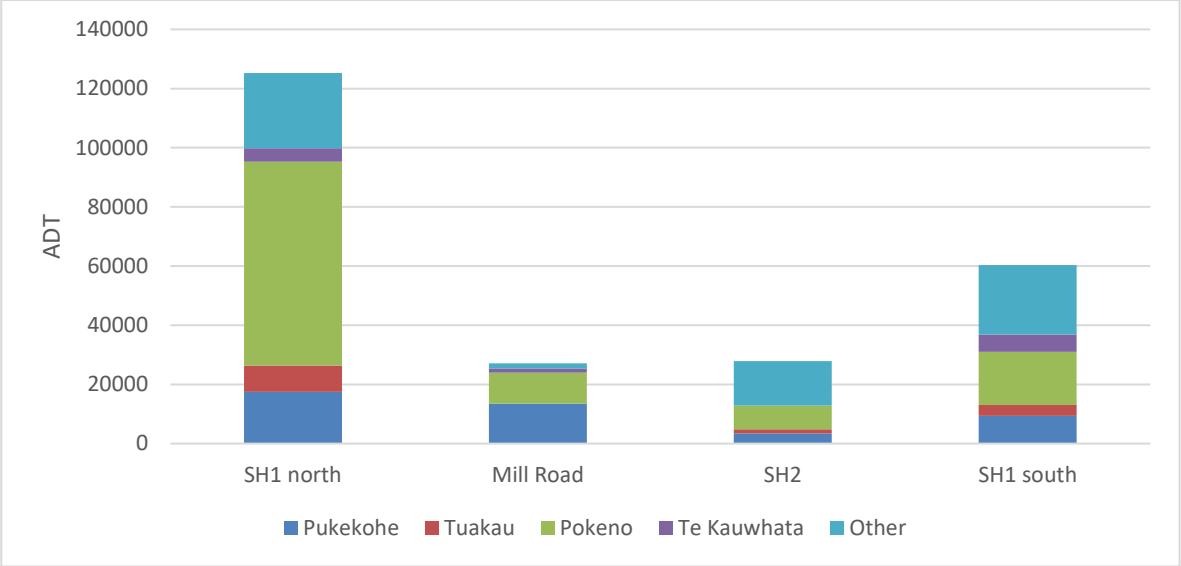


Figure 36: Origin and destination of traffic in key State Highway locations in forecast year, Scenario 2

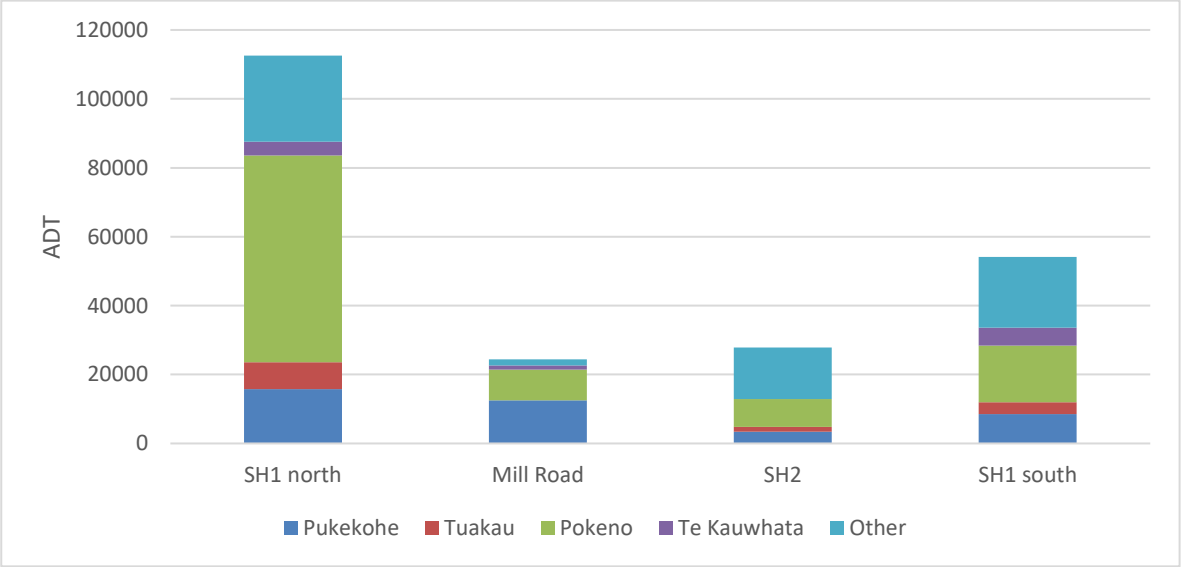
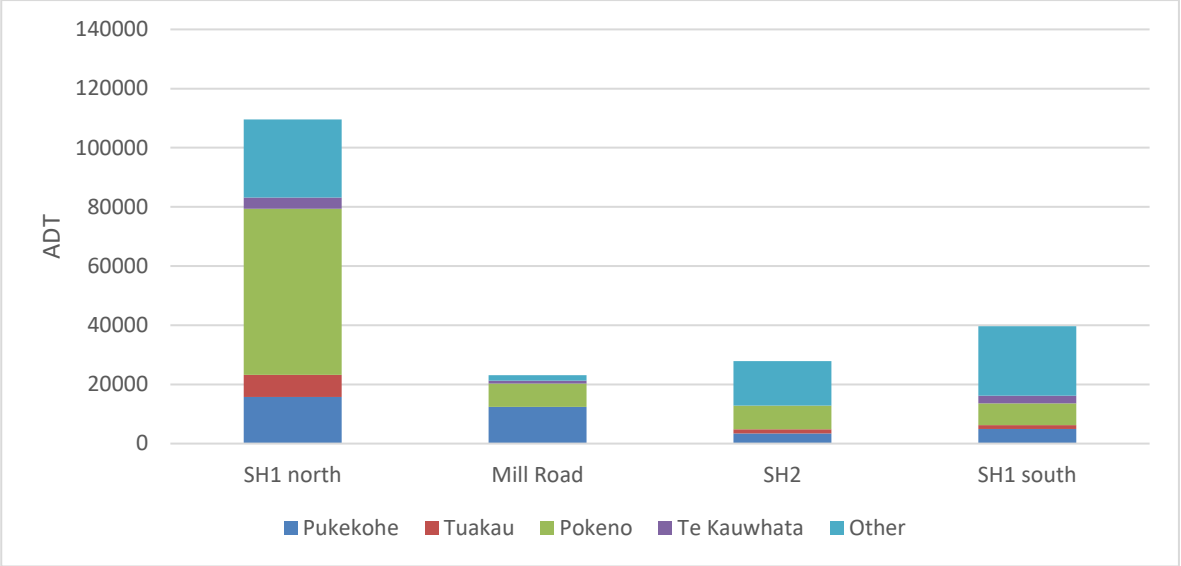


Figure 37: Origin and destination of traffic in key State Highway locations in forecast year, Scenario 3



9.4 Public Transport

Section 6.4 noted that the existing public transport journey to work mode shares for Tuakau, Pokeno and Huntly, according to the 2013 Census data, were 2%, 1% and 1%, respectively. These are clearly very low, reflecting the low existing public transport provision. These figures compare with centres to the north, according to the 2018 Census, as follows:

- 2% at Pukekohe, where bus services are provided, and where there is a train connection to Papakura
- 6% at Papakura, where there are bus services and electric rail services to the north.

Section 6.4 also suggested that public transport mode shares for trips to work may be in the order of 20% or more, but only if appropriate rail services and stations or other forms of quality public transport are provided (see Section 6.2) that connect the North Waikato towns to employment areas in Auckland, Manukau and Hamilton. Integrating facilities for people walking and cycling to public transport stops and stations will help enable people to use public transport services. Overall, 15% public transport mode share for all trip types could be achievable, with appropriate investment.

It should be stressed that the above figures are **not** intended to imply that mode share targets should be set. Rather, the intention should be to increase the number of trips per household by modes of transport other than the private car.

APPENDIX A forecast land uses

Table A 1: Household forecasts

Area	Source	Base	Long term forecast		
		2018	2048	2051	2070
Drury West & Hingaia	MSM	1,550	9,500		
	WRTM	450		11,100	
	Waikato District Plan[18]				
Pukekohe and Paerata	MSM	8,750	20,500		
	WRTM	9,400		20,900	
	Waikato District Plan[18]				
Tuakau	MSM	2,200	4,300		
	WRTM	1,850		3,400	
	Waikato District Plan[18]	2,650		5,500	6,000
Pōkeno	MSM	1,050	3,100		
	WRTM	1,000		2,200	
	Waikato District Plan[18]	1,900		6,400	7,000
Te Kauwhata	MSM				
	WRTM	1,000		1,550	
	Waikato District Plan[18]	1,550		3,100	3,400
Huntly	MSM				
	WRTM	2,800		2,800	
	Waikato District Plan[18]	3,000		4,100	4,600
Ngāruawāhia	MSM				
	WRTM	2,550		3,200	
	Waikato District Plan[18]	2,950		4,200	4,500

[18] Waikato District Plan forecasts are from the Medium Projection. "2030-2050" forecasts assumed to be approximately 2051, "2050 beyond" forecasts assumed to be 2070

Table A 2: Population forecasts

Area	Source	Base	Long term forecast			
		2018	2048	2051	2055	2070
Drury West & Hingaia	MSM	4,500	24,200			
	WRTM	1,400		23,200		
	Waikato 2070					
	NIDEA					
Pukekohe and Paerata	MSM	24,500	53,100			
	WRTM	28,000		48,100		
	Waikato 2070					
	NIDEA					
Tuakau	MSM	6,000	9,800			
	WRTM	5,600		7,900		
	Waikato 2070	5,000				8,000
	NIDEA	6,900			10,000	
Pōkeno	MSM	2,800	7,000			
	WRTM	3,000		5,200		
	Waikato 2070	2,500				16,000
	NIDEA	4,400			11,800	
Te Kauwhata	MSM					
	WRTM	2,700		3,700		
	Waikato 2070	2,000				10,000
	NIDEA	2,100			10,400	
Huntly	MSM					
	WRTM	8,400		6,500		
	Waikato 2070	7,000				13,500
	NIDEA	8,300			13,300	
Ngāruawāhia	MSM					
	WRTM	8,400		7,500		
	Waikato 2070	7,000				10,500
	NIDEA	7,300			8,500	

Table A 3: Employment forecasts

Area	Source	Base	Long term forecast			
		2018	2048	2051	2055	2070
Drury West & Hingaia	MSM	2,050	11,100			
	WRTM	850		4,600		
	Waikato 2070					
	NIDEA					
Pukekohe and Paerata	MSM	9,200	14,700			
	WRTM	10,100		21,600		
	Waikato 2070					
	NIDEA					
Tuakau	MSM	1,500	1,650			
	WRTM	1,250		2,300		
	Waikato 2070					
	NIDEA	2,100			4,400	
Pōkeno	MSM	650	700			
	WRTM	950		2,800		
	Waikato 2070					
	NIDEA	1,100			2,900	
Te Kauwhata	MSM					
	WRTM	1,050		1,000		
	Waikato 2070					
	NIDEA	500			800	
Huntly	MSM					
	WRTM	2,300		2,900		
	Waikato 2070					
	NIDEA	2,300			3,300	
Ngāruawāhia	MSM					
	WRTM	1,800		1,900		
	Waikato 2070					
	NIDEA	1,200			1,600	

APPENDIX B derivation of traffic flows based on updated land uses and mode shift

Assumptions relating to manual adjustment of trip matrices

The following section outlines the methodology to incorporate the updated land use forecasts. Each production has been factored based on the difference in population forecasts and each attraction has been factored based on the difference in employment.

To ensure this method is valid, the total factored trips have been compared to the total population forecast and manual adjustments have been applied where the total population is exceeded.

The trend illustrated in the WRTM trip distribution is that households north of and including Pōkeno tend to gravitate towards Auckland, while households south of Te Kauwhata gravitate more towards Hamilton.

Hence the adjustments made are reflective of this trend in addition to the discrepancies between the WRTM to the MSM and NIDEA land use forecasts.

Trip productions have been factored by the absolute population forecast difference whereas the attractions have been factored based on the relative trend difference between forecasts. The table below briefly explains the considerations of each origin and destination.

	As a production	As an attraction
Drury West	MSM and WRTM are relatively similar for Drury West	Significant increase in employment opportunities & extent of WRTM excludes east Drury compared to MSM
Paerata	MSM and WRTM are relatively similar for both Pukekohe and Paerata	Employment trend is similar
Pukekohe	MSM and WRTM are relatively similar for both Pukekohe and Paerata	Employment trend is similar
Tuakau	Tuakau has an approximate 10% higher forecast	Employment trend is similar
Pōkeno	Both WRTM and WISE model appear to converge although the 2070 forecast predicts a significantly higher population. The morning total peak hour trips expected in 2051 is 3770 (equal to the total number of employment opportunities), whereas the total population is some 16k (Waikato 2070) vs 5k (WRTM), an approximate 300% difference. From this we can determine an appropriate factor of up to 3 as an origin.	Employment trend is similar
Te Kauwhata	A significant difference in forecasted population, while the NIDEA forecast is similar to Waikato 2070. Hence a factor of around 2.5 has been applied.	Significant difference in employment however trend is in line with population hence minor change as attraction (mostly internal increase)
Huntly	The population forecasts vary significantly. The NIDEA trend is similar to Waikato 2070 whereas the WRTM	Employment growth shows a similar trend between the WRTM and WISE forecasts

	expects a reduction in population. A factor of around 2.9 has been applied.	
Ngaruawahia	The forecasts of all three predictions vary significantly. A factor of around 1.3 has been applied. It is noted that this community is likely to have a minor influence on the study area.	Similar employment trend with population

The WRTM outputs traffic flows in 2 hour peak periods. However average daily traffic (ADT) flows are more useful for our study. Hence the morning, evening an interpeak outputs from the WRTM have been factored up to ADT using the 2013 base compared to 2013 observed ADT from NZTA traffic counts. Table B 1 shows the 2 hour peak flow outputs from the WRTM, Table B 2 shows the factors determined by the volumes from Table B 3 to produce the forecast 2051 ADT.

The factors to determine the average daily traffic (ADT) are based on 2013 observed ADT from NZTA traffic counts. These counts are provided in the table below with a comparison to the WRTM 2013 base and 2051 forecast morning, evening, and interpeak 2 hour outputs. Locations 1 and 4 include one-way counts as the 2013 observed ADT is available for each direction whereas locations 2 and 3 have two way counts recorded.

Table B 1: Existing WRTM 2013 and 2051 forecast 2 hour peak traffic flows

		AM Peak Volume		INT Peak Volume		PM Peak Volume	
	Direction	**2013**	**2051**	**2013**	**2051**	**2013**	**2051**
1	NB	1820	2745	2240	4360	2660	5900
	SB	2510	5580	2360	4840	3860	5640
2	EB	1600	3130	1480	2700	1800	2270
	WB	2270	2870	1755	3135	2620	3310
3	EB	630	1730	550	825	770	675
	WB	600	430	615	1000	690	3410
4	NB	1110	3870	1330	2420	1830	4410
	SB	1150	1540	1290	2200	1710	2220

Table B 2: Peak hour to ADT factors determined from 2013 observed flows in Table B 3

	Direction	AM Factor	INT Factor	PM Factor
1	NB	0.67	7.6	0.67
	SB	0.67	7.6	0.67
2	EB/WB	0.25	3.20	0.25
3	EB/WB	0.67	10.2	0.67
4	NB	0.65	6.5	0.65
	SB	0.87	6.5	0.87

Table B 3: 2013 observed ADT used to determine factors in Table B 2 above producing WRTM ADT from peak hour flows

	Direction	Observed ADT 2013	WRTM ADT (2013)	Forecast ADT (2051)
1	NB	20,100	20,100	39,000
	SB	20,200	20,200	40,000
2	EB/WB	12,400	12,400	21,600
3	EB/WB	13,700	13,700	22,700
4	NB	10,500	10,500	21,100
	SB	10,900	10,900	17,600

Given the rudimentary analysis applied we have supplied additional tests relating to the updated factors based on the following,

- Reducing the higher forecast towns ie Huntly, Te Kauwhata and Pokeno to an upper limit of 2.5, 2.5, and 2, respectively, Table B 4
- Applying an upper maximum factor of 2 given we have used the highest forecast and not considered the medium or low forecasts, Table B 5.

Table B 4: 2051 forecast vehicle volumes of the State Highway network with reduced factors for Huntly, Te Kauwhata, and Pokeno

Scenario	SH1 north	Mill Road	SH2	SH1 south	Scenario/Base
Base	76,800	21,800	22,300	38,000	
1	122,000	26,100	26,700	57,100	1.5
2	109,900	23,500	26,700	51,300	1.3
3	105,400	22,300	26,700	49,300	1.3
4	98,700	21,200	25,000	46,200	1.2

Table B 5: 2051 forecast vehicle volumes of the State Highway network with a maximum upper limit

Scenario	SH1 north	Mill Road	SH2	SH1 south	Scenario/Base
Base	76,800	21,800	22,300	38,000	
1	120,200	25,700	26,700	53,300	1.4
2	108,300	23,200	26,700	48,100	1.3
3	103,900	22,000	26,700	46,300	1.3
4	97,400	21,000	25,000	43,400	1.2

It is important to note a significant limitation of this analysis (and hence why future studies should make use of the most up to date MSM model when it is available) as the congestion increases more people are likely to consider alternative modes whereas in this case it assumes everyone will continue driving despite the congestion. We also consider the total forecast population ratio is 51900/31900 ie 1.6 a reasonable verification in comparison to column 6 of Table B 4 and Table B 5.

Distribution assumptions

Following the peak hour counts factored into ADT, the estimated traffic volume forecasts presented in Table 6, Section 9.1 has been developed according to the following method

- Based on the land use adjustments, the trips have been factored up based on the respective population difference for each community and local employment trends have incorporated reduced non-local trips
- The proportions of communities using the state highway network increases as the distance travelled increases, for example trips from Hamilton to Auckland are likely to have a higher proportion of trips via SH1 whereas trips with smaller travelling distances may use alternative routes
- Trips originating and ending in rural areas have higher uncertainty and therefore use of alternative routes is expected
- This method has been validated by comparing base and forecast outputs of the WRTM to the trip distribution analysis of this study prior to factoring trips

It is acknowledged that the above process is very simplistic and not likely as accurate as a regional transportation model.

Scenario methodology

Several scenarios have been created to determine the likely mode shift based on strategic investment into public transportation and walking and cycling amenities.

Scenario 1 – anticipates the WRTM forecasts are representative with the adjusted land use forecasts

Scenario 2 – anticipates a 15% mode shift of north Waikato communities

Scenario 3 – anticipates a 25% mode shift of north Waikato communities

Scenario 4 – As Scenario 3, but with a 50% mode shift of freight onto rail.

The distances between most communities within the study area are too great to make significant travel by active modes attractive between townships. However, within communities that have high internal trips such as Tuakau, Pōkeno, and Te Kauwhata, appropriate investment into walking cycling paths internally is likely to encourage mode shift. However as these are internal trips they are not likely to reduce the reliance on the State Highway network substantially, without land use changes. Thus we have omitted including this potential mode shift from the analysis of the effect on the SH network.

Hence for the purpose of this study it is more beneficial to investigate the impact of investment into public transport as this mode is more related to reductions in vehicle trips that rely on the State Highway network. As identified in section 6.4, each community is within vicinity of the NIMT rail corridor. Bus

travel could be used to increase the catchment onto rail – this requires improvements to the existing bus network.

The above scenarios are essentially a low expectation of PT adoption, a realistic adoption, and a high adoption in comparison with the case study comparing the Wellington region network.

We have acknowledged Auckland as a trip end is a large region resulting in substantial variations in the likely take up of PT. Hence we have assumed a maximum of 10% adoption as a destination via rail.

Scenario 1 to 3 assume the forecast HCV composition remains constant to the forecast year whereas Scenario 4 has adopted a 50% mode shift onto rail as shown in Table B 6.

Table B 6: Existing HCV composition and forecast HCV composition following 10% mode shift onto rail

	Direction	HCV% existing	Mode shift factor	HCV% Scenario 4
1	NB	13%	0.5	11%
	SB	13%	0.5	11%
2	EB/WB	9%	0.5	8 %
3	EB/WB	12%	0.5	11%
4	NB	13%	0.5	11%
	SB	13%	0.5	11%

Validation

Validation of the methodology has included a comparison of the total new trips generated from the updated population forecasts, ie the total number of new trips does not exceed the 1.66 population factor difference identified in Section 3.3.