UFTI Urban Form + Transport Initiative

Urban Form and Transport Initiative (UFTI) Final Report

SmartGrowth Managing Growth in the Western Bay

Bay of Plenty Regional Council Toi Moana

Western Bay of Plenty District Council

Tauranga City

Kia Tu Pakari ai Tatou

NZ Transport Agency Waka Kotahi

New Zealand Government

Foreword

Tēnā koutou katoa,

This report represents a major milestone in our 12-month journey on the Urban Form and Transport Initiative (UFTI). An incredible amount of effort has gone into development and planning to reach this point. Now the mahi to deliver the Connected Centres programme will begin.

Our way of living has changed dramatically since we began this journey and COVID-19 has been a reminder of the effect that such events can have on our wellbeing. It has underscored the importance of being resilient and responsive. It has also highlighted how important it is to plan for the long term, and having the agility to adapt the speed and timing of delivery as necessary.

The UFTI project has allowed us to reimagine what our future could be if we make important changes now. UFTI represents a refreshed and coordinated approach to addressing key urban form and transport issues across our sub-region.

More than anything, UFTI has been about a partnership approach. It has continued the SmartGrowth way of working together, as well as encouraging greater involvement from central government and tangata whenua.

All of the work done to date, including the Foundation Report and Interim Report, has set out to identify and address the challenges we face. This Final Report presents the best way of meeting these challenges and delivering on the community outcomes we are looking for, such as improved access to housing, better transport connections to move people and goods, and creating a sub-region that enables us to continue to live, work, learn, and play as we move into the future.

A major step change will be required to implement the Connected Centres programme, together, overtime. There is an agreed way forward and a strong desire to deliver a much-improved urban form and transport system for our western Bay of Plenty communities. With bold leadership and strong partnerships, we can achieve this.

Bill Wasley
SmartGrowth Independent Chair

Mayurie Gunatilaka
Senior Manager, System Planning – Transport Services, Waka Kotahi

UFTI Executive Review Group Co-Chairs

Rarangahia te Taurawhiri Tangata hua ai te Marama

Weaving people together to make a positive change

Rarangahia – To weave

Harakeke (New Zealand flax, *Phormium tenax*) is essential for our very survival, it is symbolic of customary Māori life. Harakeke was primarily used to create many assets and is in abundance across the rohe. It is well-known for its strength and durability. Once it is cut, it goes through a long preparation process before it can be used to weave.

The art of raranga (weaving) was essential to how our tūpuna (ancestors) lived. Our tūpuna created whākariki (floor mats) as basic floor covering, as well as creating finer whākariki for sleeping, the birth of a child and tangihanga (funeral). Our tūpuna also wove kete (woven baskets) for carrying items such as kai (food). However, weaving was not only used to create practical items like whākariki and kete, it was also a way our tūpuna shared kōrero, and preserved history for future generations. By using a range of patterns and colours, our rich history is shown through woven pieces of art such as the tukutuku (lattice-work) panels you see in our wharenui.

Tihei mauriora!
Ki te whai ao, ki te ao mārama
E ngā mana, e ngā reo, e ngā
pae maunga huri noa te motu
He mihi tēnei ki a koutou i
whakatoro i ō koutou ringaringa i
hāpaitia,
i rapuhia i te ara tika hei
painga mō te iwi.

Hutia te rito o te harakeke
Kei hea te komako e ko
Ki mai ki ahau
He aha te mea nui i te ao
Maku e ki atu
He tangata, he tangata, he
tangata

The colour of the harakeke is also incredibly important as different colours create patterns which helps to communicate the kōrero. Mud and tree bark were typically used to colour the flax, although today dye is used instead. The symbolism and hidden meanings are contained in the many patterns, both ancient and modern, used in the many forms of weaving, and in the fibres themselves.

Raranga is also a powerful symbol that evokes tribal memories of the ancestors and the arts they brought with them to Aotearoa / New Zealand, and that the ancestors passed down to us. A living art and a living symbol that has survived with us, our language and culture, and that moves with us beyond the temporary setbacks of the colonial era. Raranga is a great way to connect with the past and keep our culture alive into the future.

It is with these thoughts and concepts of raranga, we share the philosophy of 'rarangahia – weave' the content of the Urban Form and Transport Initiative to connect the people, places and spaces to the growth and development of Western Bay of Plenty sub-region; weaving the many layers of people that make up the many transport modes to create connections to our future.

Rarangahia is to weave the acknowledgement of the skills, knowledge, struggles, achievements, success, contribution, and inspiration of the people – weaving together, unity, connecting the people so they can fruition and achieve together.

UFTI was prepared by SmartGrowth staff, Bay of Plenty Regional Council, Tauranga City Council, and Western Bay of Plenty District Council officers, Waka Kotahi, Ministry of Housing and Urban Development, and Kaianga Ora staff, and the UFTI project team. The UFTI project team included Robert Brodnax, Ben Peacey, Janeane Joyce, Craig Richards, and Ben Petch. A number of technical advisers assisted in the development of the UFTI research reports, and prepared advice to support UFTI.

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Figures and tables

Executive summary

The SmartGrowth Partners have prepared the Urban Form and Transport Initiative (UFTI) programme business case to set out an integrated land use and transport programme, and delivery plan for the western Bay of Plenty. It caters for the approximate 200,000 additional people, 95,000 new homes, and 2 million additional transport movements per day expected within the next 30 to 70 plus years.[1] The programme is called 'Connected Centres'.

The UFTI Connected Centres programme is required as the western Bay of Plenty sub-region has grown significantly over the past 60 years and continues to be one of the fastest growth areas in New Zealand. Growth, over a relatively short time, has put pressure on the sub-region's infrastructure and services, especially housing and transport.

Growth can also come with benefits. Sustainable growth can lead to opportunities for enhancement of education, employment, and civic amenities that would otherwise not exist. The SmartGrowth Partners, through the delivery of the Connected Centres programme, help ensure we can all benefit from the opportunities associated with growth and address our challenges. A transformational change is required.

Through the UFTI programme business case, the Connected Centres programme has been developed to provide a high level, future focused land use and transport programme to be implemented and delivered over time, including the actions that are necessary to enable current and new residents to enjoy living, learning, working, and playing in the Western Bay of Plenty sub-region. The Connected Centres programme guides future investment decisions and will be incorporated into a Western Bay of Plenty joint spatial plan which will also be agreed and signed off by the government.

Delivering the Connected Centres programme will enable the sub-region to achieve improved housing, movement for people and goods, environmental, and economic prosperity outcomes. The supporting economic and financial analysis for the Connected Centres programme suggests the quantum of these benefits are greater than the costs, with an indicative efficiency ratio range of 1.0 - 1.4. When the economic analysis is combined with a results alignment assessment using the Investment Assessment Framework as required by Waka Kotahi, the Connected Centres programme is assessed as being High result alignment and Low economic efficiency, with an investment priority of 5.

The assessment suggests that actions and activities within the Connected Centres programme could seek transport funding and be included in future National Land Transport Programmes, subject to national transport prioritisation frameworks and funding Waka Kotahi have available.

[1] UFTI uses a 30 year population forecast based on NIDEA of reaching a WBoP population of approximately 269,000 people requiring an additional 35,000 plus homes, and a population scenario of reaching a WBoP population of approximately 400,000 people requiring an additional 62,000 plus homes is used for the long term scenario

The Connected Centres programme

At the heart of this report is the Connected Centres programme that the SmartGrowth partners will invest in and deliver over the next 50 years and beyond.

The Connected Centres programme has a land use settlement pattern and multimodal transport system that enables people now, and in the future, to continue living, learning, working, playing, and moving in the western Bay of Plenty in a way that is both desirable and sustainable. Over time, this programme will deliver greater housing and transport choices, improve and enable safe access to the sub-region's many social and economic opportunities, help to reduce transport-related greenhouse gas emissions, move goods efficiently and reliably, contribute to more social and affordable housing, and manage environmental and cultural impacts often associated with unplanned growth. The overview map in Figure 1, provides a summary of the Connected Centres programme.[2]

There are two core concepts critical to the Connected Centres programme. The first is increasing the number of dwellings by intensifying our existing urban and new growth areas. This is to maximise the land available for development and support a well-functioning multimodal transport system. The second is being able to access local social and economic opportunities within a15-minute journey time, and sub-regional social and economic opportunities within 30–45 minutes. These concepts encourage strong local centres and connected neighbourhoods. Based on these core concepts, the Connected Centres programme requires us to rethink and change how we will live, work, learn, play, and move and be connected with the wider Bay of Plenty and upper North Island, now and in the future.

The multimodal transport components of the Connected Centres programme are built around four high frequency and dedicated public transport corridors linking key centres for work, learning and play. Supporting these public transport corridors, are dedicated walking and cycling paths to enable safe and easy access, along with freight priority areas to support access to the Port of Tauranga and enable movement of goods around the harbour.

Within the corridors and at key centres, housing densities will be higher than we have seen before in the past. These centres occur in both existing and greenfield areas along our key multimodal corridors, allowing the sub-region to grow up and out. Opportunities and decisions for the development of Māori land and Treaty settlement land, will continue to be retained by iwi and hapū, and supported by the SmartGrowth partners.

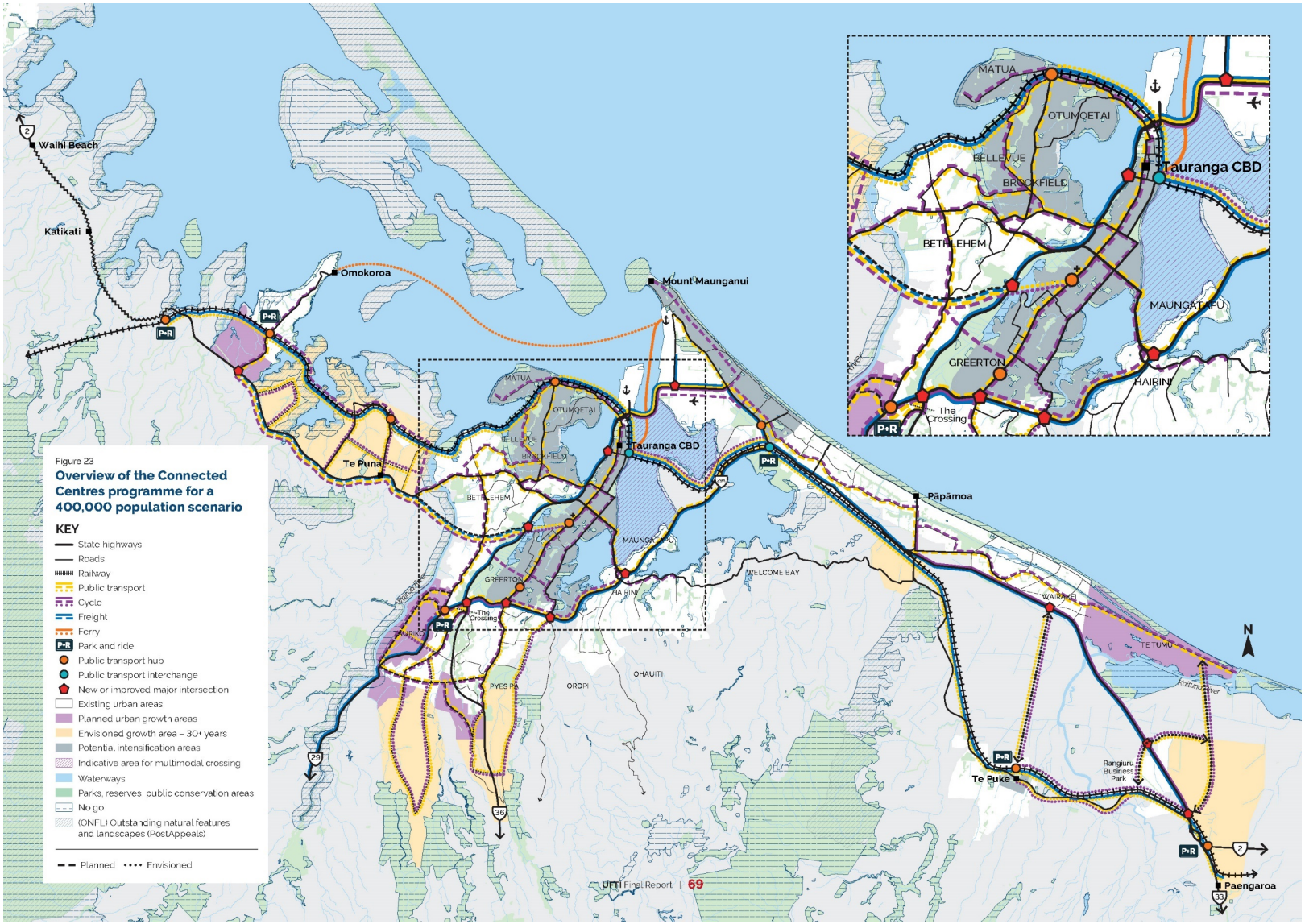
[2] The envisioned growth areas and accompanying transport improvements shown in the overview map are indicative only and require further investigation before being confirmed and/or being committed to further by the SmartGrowth Partners.

One of the most significant changes of the Connected Centres programme is how we move. The change is necessary because as demand increases so will vehicle delays on key routes. The increase in demand and resulting delays is simply a result of population growth and the increasing economic activity including, increasing Port volumes. Analysis prepared through UFTI suggests without a stepped change to a multi-modal transport system, delays will get much worse. Further, the scale of the challenge is such that even with a stepped change in multi-modal investment, supporting policy and community behaviour, delays particularly on key parts of the system are still projected to worsen. This reinforces the need for an alternative approach to those applied in the past to manage these issues which have resulted in too much reliance on single occupancy vehicle travel compared to other modes of travel.

Experience from Auckland, and findings from international case studies, tells us continued growth will inevitably lead to increased traffic volumes and delays. In the short-term and increasingly over time, journey times, particularly at peak times for single occupancy vehicles, will become less predictable, but we cannot build our way out of congestion. We simply cannot afford to, nor do we have the space within the sub-region and city, to build the roading necessary to cater for the expected future demand. Instead, we have to focus on how we can maximise and optimise the movement of people and goods more effectively and efficiently through our future multimodal transport system. This will include improvement and optimisation of limited existing corridor space and some increased system capacity, especially at intersections to implement a multimodal transport system and therefore be able to move more people and goods.

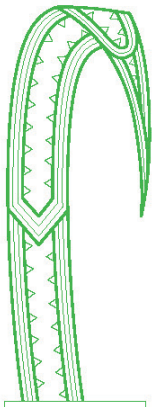
Making the shift to a multimodal transport system is challenging and will take time to deliver. However, the analysis of the Connected Centres programme suggests the benefits from the investment outweigh the costs over time. More people will have greater choice in where they live, how they live, and the way they move. The degree to which these outcomes can be achieved are dependent on how successful the sub-region is in achieving mode shift. Key next step implementation activities, like the Joint Spatial Plan, Regional Land Transport Programme, Regional Public Transport Plan, Western Bay of Plenty Transport System Plan, are important to the success of UFTI. They will further investigate how UFTIs strategic direction is delivered in the western Bay of Plenty sub-region.

Figure 1. Overview of the Connected Centres programme for a 400,000 population scenario



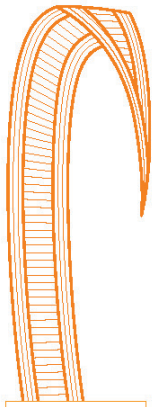
Structure of the UFTI Final Report

This UFTI Final Report has been developed in five parts.



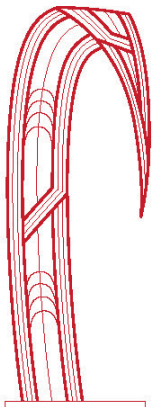
Part 1

outlines the key foundations that set the base for UFTI



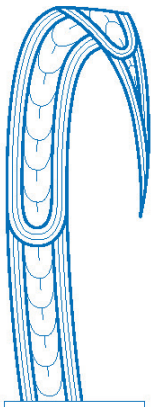
Part 2

recaps the challenges, benefits, and the development of the shortlisted programmes to identify the optimal Connected Communities programme



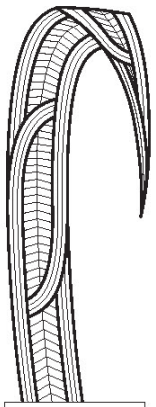
Part 3

describes the Connected Communities programmes and includes the necessary analysis to support the investment



Part 4

outlines the governance and actions to deliver the Connected Communities programme using a shared accountability framework



Part 5

includes a bibliography and the appendices of key technical reports that support the development of the Connected Communities programme

Much of the content within the different parts of the Final Report are to enable evaluation of the Connected Centres programme and the UFTI programme business case. This is necessary to fulfil the requirements of the business case approach and enable co-investors (Councils and central Government) to consider the benefits, outcomes, and costs of the Connected Centres programme, in their decision-making processes.

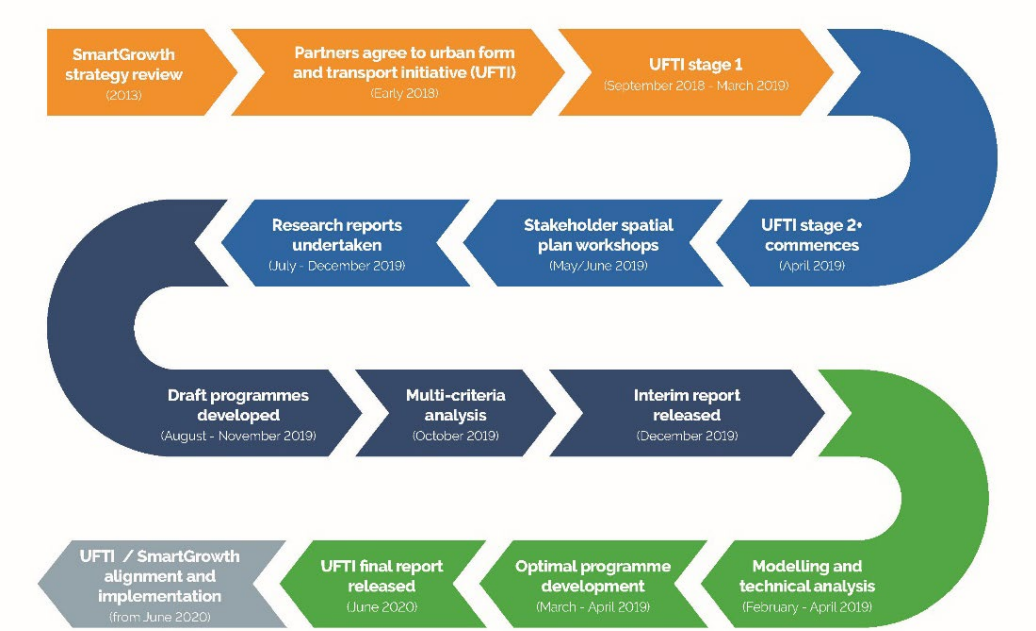
Part 1: SmartGrowth partnership and collaboration

The Final Report is the third phase of the UFTI journey. Through the Foundation and the Interim Reports, we have now reached a point where we have an optimal programme to enhance and integrated urban form and transport outcomes in the western Bay of Plenty over the next 50 years and beyond.

We have taken this journey (see Figure 2) to consider our potential future growth and reimagine what that future might mean in terms of the way we live, work, learn, play and how we move within the sub-region. This journey has taken place through UFTI, as part of SmartGrowth.

UFTI is an integrated urban development and transport project for the western Bay of Plenty which provides a refreshed, coordinated, and aligned approach across the sub-region on key issues, such as housing, transport, and urban development. UFTI is necessary to identify how we can support our current and future land use pattern with a multimodal, multi-agency, transport investment programme.

Figure 2. *Journey to develop UFTI*



Through UFTI, we have started the planning for an optimal future urban form by identifying where quality intensification of existing areas could take place, where expansion of existing growth areas could occur, and where our new future growth areas could be located. In determining the urban form, we have focused on getting a balance of both going up and going out.

Thinking forward to potential futures is necessary. It enables us to acknowledge and embrace change within the sub-region, and collaborate with our partners and stakeholders so, together, we can plan for how we can best accommodate continued growth. While it is tempting to think it is possible to turn off growth and consider options with significantly less population, from a resource management, complying with National Policy Statements, and planning perspective, we do not believe it is possible to restrict growth.

Ignoring growth, without proactively planning and managing it, has the potential to result in development occurring in a haphazard, unguided, and reactive manner. It could also mean that new developments may occur in areas not well-served by transport, Three Waters infrastructure or community amenities. The consequences of uncoordinated growth are additional costs to ratepayers for infrastructure and services, congestion, environmental degradation, and growing social inequalities in access to transport, services, employment and amenities and housing affordability issues. By planning and delivering for the longer term, the SmartGrowth Partners will avoid many of the negative consequences associated with growth.

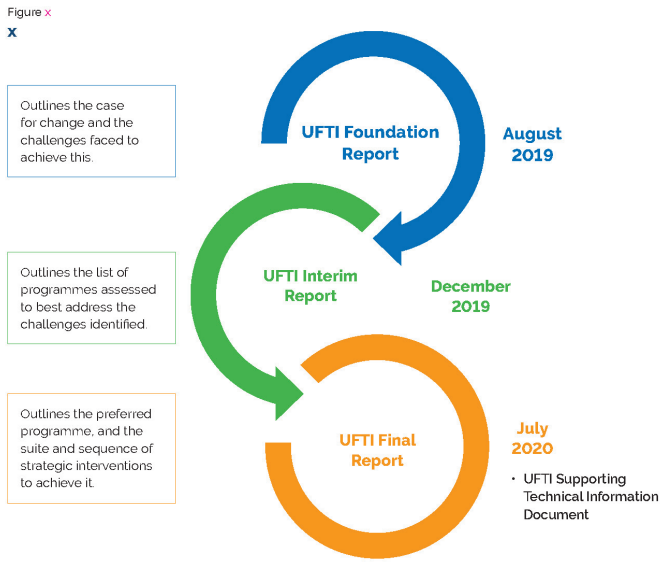
UFTI objectives and deliverables

UFTI provides an agreed integrated delivery plan to enhance our future for the western Bay of Plenty by identifying an optimal long term urban form and multimodal transport system. The Connected Communities programme and delivery plan will enable the partners to deliver the necessary urban form, land use, and transport changes and improvements over time to achieve the agreed strategy.

The UFTI project was developed to include three phases as outlined in Figure 3 and set out to achieve the following objectives:

- To enable and shape a sustainable, vibrant, efficient, and more liveable urban form
- To enable and support sufficient housing supply in existing and new urban areas to meet current and future needs
- To support access to economic and social opportunities as the western Bay of Plenty's population and economy grows
- To improve measurable transport outcomes such as congestion levels, road safety, travel choice and private vehicle dependency, and environmental impacts (including CO_2)
- To ensure long-lasting economic, social, environmental, and cultural benefits and value for money from the agreed strategic plan.

Figure 3.: Key deliverables and milestones



UFTI delivers these outcomes via the following outputs:

- A programme business case to support investment decision making[3]
- A renewed sub-regional investment story about the integration of land use and transport to achieve good public outcomes
- A technical input into the SmartGrowth Joint Spatial Plan in partnership with central Government.

Along the way, the new relationship between SmartGrowth and central Government has been strengthened. As a result, a formal partnership between the two parties has been established.

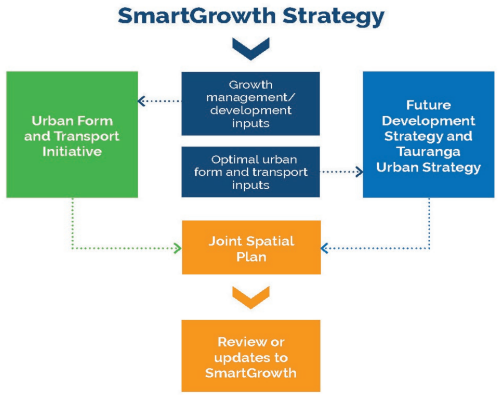
SmartGrowth and UFTI

UFTI is shaped by the SmartGrowth pillars of partnership, collaboration leadership, integration, being evidence-based and to deliver on the live, learn, work, and play strategic vision.

Figure 5: Connection between SmartGrowth and UFTI

UFTI builds upon the SmartGrowth Strategy, including SmartGrowth-related projects such as the Proposed Future Development Strategy and the Tauranga Urban Strategy. Figure 5 illustrates the SmartGrowth outcomes and how the work of UFTI fits within this framework.

Figure 4: Updating the SmartGrowth strategy post UFTI



UFTI was designed to deliver an integrated, strategic approach for the development of the western Bay of Plenty's urban form and transport system. UFTI is a SmartGrowth-led project and SmartGrowth will oversee and monitor the implementation completed by the partners as indicated in Part 4 of this report. Figure 4 illustrates the relationship and the approach of achieving one integrated document at the end of the process.

[3] Business cases are a mandatory requirement for any central government investment. A programme business case is one that supports multiple interdependent investments that share a common set of challenge statements and benefits. For guidance on expectations of business cases, please refer to www.treasury.govt.nz and www.Waka Kotahi.govt.nz.

The national context and its consideration in UFTI

Several things have changed since the UFTI project was initiated. Spatial planning has become a strong focus for the Government as it enables better integrated land use, infrastructure, and funding as well as opportunities for stronger partnerships between local and central government, iwi, hapū and the wider community.

The government has communicated its desire to develop joint spatial plans with local government and tangata whenua. The work of UFTI provides most of the content needed for a joint spatial plan. UFTI has therefore largely addressed the expectations of the Government's Urban Growth Partnership Programme (see Figure 6).

The SmartGrowth partners will use the UFTI work, and the Final Report, as a key input into the first draft of the Joint Spatial Plan. The Joint Spatial Plan is an important vehicle for delivering on the UFTI outcomes and the Connected Centres programme.

UFTI has placed significant emphasis on achieving the strategic priorities outlined in the Government Policy Statement (GPS) on Land Transport. UFTI is also aligned with relevant government outcome frameworks

Figure 6. Key aspects of the Urban Growth Partnerships for developing a Joint Spatial Plan

such as the Urban Growth Agenda objectives, Wellbeing Living Standards Framework, the Ministry of Transport's Transport Outcomes Framework, Waka Kotahi strategies such as the 'Arataki' and 'Toitū Te Taiao', as well as local authority outcome planning processes.

These frameworks emphasise the importance of developing a multimodal transport system and acknowledge the relationship between access to affordable transport options and housing choice, and social and economic wellbeing outcomes. The Urban Growth Partnership Programme is a critical component of delivering the government objectives and frameworks together on the ground with local government and iwi partners. In the case of UFTI and SmartGrowth this is achieved via an integrated approach to spatial planning.

Reduction of transport related greenhouse gas (GHG) emissions is a key priority for the SmartGrowth Partners and government. In part reducing emissions relies upon mode shift and land use patterns that support an increase in the use of active modes and public transport as a means of reducing transport emissions, even as our communities continue to grow.

The integration of land use and transport has been at the forefront of planning in New Zealand for more than two decades. The importance of good urban form being supported by an accessible and high-quality multimodal transport system is critical to achieve SmartGrowth and UFTI outcomes. The relationship between shaping good urban form and a supporting transport system is inextricably linked. Strong cities are built on the sustainable movement of people and goods. UFTI is focused on supporting liveable community outcomes and finding solutions for housing typology, capacity and affordability, intensification, multimodal transport, and network capacity challenges being faced by the sub-region. This in turn will deliver on key government objectives, policies, and priorities, and can be adapted to suit these as they evolve and change over time.

UFTI also aligns with relevant legislation such as the Resource Management Act 1991, the Local Government Act 2002, the Land Transport Management Act 2003, and new statutes such as the Climate Change Response (Zero Carbon) Amendment Act. There are a number of existing and proposed National Policy Statements that have influenced the UFTI work and will be important for implementation.[4]

There are some common themes across these strategic and policy approaches, such as:

- Social, economic, environmental, and cultural wellbeing

[4] There is an existing National Policy Statement on Urban Development Capacity and a Proposed National Policy Statement on Urban Development. These set the direction as to how local government should enable opportunities for development in urban areas which a focus on delivering quality urban environments now and in the future.
The Proposed National Policy Statement for Highly Productive Land aims to improve the way productive land is managed under the RMA with a focus on recognising the full range of values and benefits of primary production, maintaining availability for future generations and protecting highly productive land from inappropriate subdivision, use and development.
The National Policy Statement for Freshwater Management considers and recognises Te Mana o te Wai and directs the content that regional councils must include in their regional plans in relation to freshwater. There is a new Proposed Freshwater NPS which includes requirements to improve degraded water bodies, avoid any further loss or degradation of wetlands and streams, expanded national objectives and other targets and monitoring obligations. The National Policy Statement for Indigenous Biodiversity will provide clear direction to councils on their responsibilities for identifying, protecting, managing, and restoring indigenous biodiversity under the RMA.

- Adapting to diverse and changing needs
- A focus on liveability and enabling quality-built environments
- Improving people's transport and housing choices
- Creating competitive land markets and more affordable housing choices
- Improving access to employment, education, amenities, and services
- System resilience, especially around climate change

All these themes form part of the outcomes and investment objectives of UFTI. The benefits of UFTI are focussed on housing, movements, the environment, and prosperity. These are all linked to national objectives and outcomes.

COVID-19 recovery and UFTI alignment

Just as the UFTI programme has provided a unique opportunity for the western Bay of Plenty, government and the community to work together to define future urban form and transport initiatives, New Zealand's recovery from the impacts of COVID-19 has also provided the opportunity to reconsider and do things differently and ensure greater social, environmental, cultural and economic outcomes into the future.

By doing things differently, the sub-region may be able to transition to a low carbon economy and meet low carbon emissions targets sooner than originally anticipated. This is in alignment with UFTI and government objectives and outcomes, particularly in relation to multimodal transport options, greater working flexibility and as a result, less pressure on the sub-region's transport system.

Based on recent analysis completed by Waka Kotahi,[5] the impacts of COVID-19 are likely to extend to many different regions and sectors, including the main urban areas. Waka Kotahi has reoriented its Arataki 10-year planning direction to reflect the COVID-19 economic recovery, the range of levers needed to maximise the benefits of recovery activities and, over the remainder of the decade, optimise transport's role in enabling community wellbeing. Covid 19 may also lead to enduing changes in our working habits, more of us may work from home or in smaller shared office spaces closer to where we live. It is too early to assess the permanent impact of these changes (if any).

As work on sub-regional and regional recovery plans progress and the way in which we live, learn, work and play in the region evolves, it will be important to monitor changes and potentially consider and align initiatives and projects with UFTI outcomes and recommendations.

[5] The analysis by Waka Kotahi is available at https://www.Waka Kotahi.govt.nz/assets/planning-and-investment/docs/arataki/regional-summary-4-bay-of-plenty-potential-impacts-of-covid-19.pdf

Partnership with tangata whenua

The history, culture, and values of tangata whenua are part of what makes the western Bay of Plenty a special part of New Zealand.

Tangata whenua have been a partner in SmartGrowth since its inception in 2004. This partnership has been exercised through membership on the governance group and the creation of the Combined Tangata Whenua Forum for engagement. However, progress with Treaty settlements, the emergence of new approaches to spatial planning, and increased expectations from government and tangata whenua regarding co-management of natural and physical resources, means that UFTI has provided, the SmartGrowth partners with the opportunity to lift the partnership to a new level. SmartGrowth needs to proactively work in partnership with tangata whenua to achieve their social, cultural, environmental, and economic objectives, alongside those of other partners.

Through UFTI, this new approach has been developed using a technical panel of local tangata whenua, He Manukura—who are also experts in planning and public policy—to shape and lead engagement with tangata whenua. This group is an expert advisory group only, not formally mandated to speak on behalf of iwi and hapū. Based on advice from He Manukura, UFTI recommends the preparation of an Iwi Spatial Plan that forms a layer within the SmartGrowth Joint Spatial Plan, and which will test and refine the settlement pattern from a tangata whenua perspective. This work is still progressing, with COVID-19 restrictions playing a part in timeframes being pushed out.

He Manukura prepared several pieces of technical advice for UFTI including reviewing and finalising the report "Tangata Whenua Perspectives on Growth Management" which analyses 16 local iwi and hapū management plans, recent Treaty settlements and other material. He Manukura advised UFTI each iwi and hapū will have their own perspective on the importance of different places and land areas, and the way in which cultural and heritage values should be addressed when thinking about urban form and transport. It is recognised that there is a Hapu and iwi will need for each iwi and hapū to be given the opportunity to express these cultural and heritage values in their own way. The development of an Iwi Spatial Plan will provide a mechanism to do this in a way that can more easily be incorporated into the SmartGrowth Joint Spatial Plan.

He Manukura noted urban form and transport are also a major determinant of Māori wellbeing especially in terms of access to affordable housing and transport. Again, each iwi and hapū will have different aspirations and approaches to addressing these issues.

In terms of urban form and transport the future role of Māori owned land remains a major unknown. The different land-owning trusts in the sub-region are still in the process of defining their long-term aspirations and wishes. There is the potential for decisions they make to have long-term impacts on both urban form and the transport system in the future.

The reports noted the importance of understanding tangata whenua values based on common principles which are reflected in several iwi and hapū management plans in the sub-region. These principles are underpinned by concepts of:

- Rangatiratanga: the right to exercise authority and self-determination within one's own iwi / hapū realm
- Kaitiakitanga: managing and conserving the environment as part of a reciprocal relationship, based on Te Ao Māori—the Māori worldview—that we, as humans, are part of the natural world.
- Manaakitanga: the ethic of holistic hospitality whereby mana whenua has inherited obligations to be the best hosts they can be
- Wairuatanga: the immutable spiritual connection between people and their environments
- Kotahitanga: unity, cohesion, and collaboration
- Whanaungatanga: a relationship through shared experiences and working together which provides people with a sense of belonging
- Mātauranga: Māori/mana whenua knowledge and understanding (Te Aranga, 2008 Te Aranga Māori Cultural Landscape Strategy)

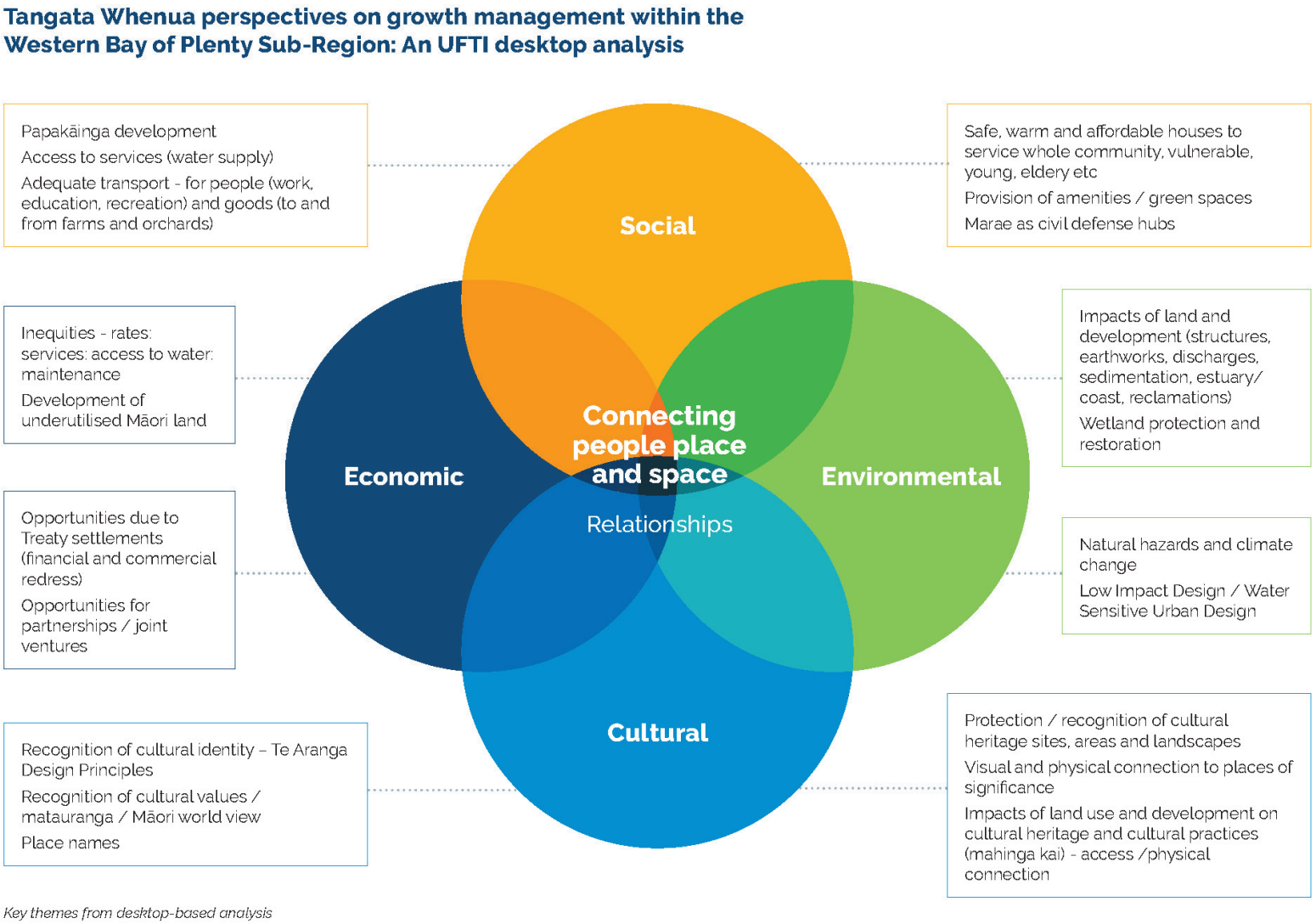
The He Manukura report highlights the concept of 'Connection', weaving together the issues, concerns and aspirations of iwi and hapū and integrating those into the broader story for the sub-region that connects across all elements of cultural, spiritual, environmental and economic wellbeing. These concepts of Connection are summarised in Figure 7 and provide insight into key implementation principles that should underpin the preferred programme.

We also note the following additional insights are directly relevant to the selection of an optimal programme:

1. The importance of retaining green belt Māori communities such as Matapihi, Te Puna and east of Welcome Bay
2. The importance of including iwi, hapū and marae aspirations in spatial planning in a purposeful and meaningful way, starting with understanding the location and spatial extent of:
    a. multiple-owned Māori Land
    b. marae, urupā and papakāinga
    c. hauora facilities, as well as sports grounds and facilities
    d. kura and kōhanga reo.

These insights have helped shape the Connected Centres programme, especially in the care placed to ensure the role of tangata whenua as critical decision makers for interventions that have the potential to touch on these areas is emphasised.

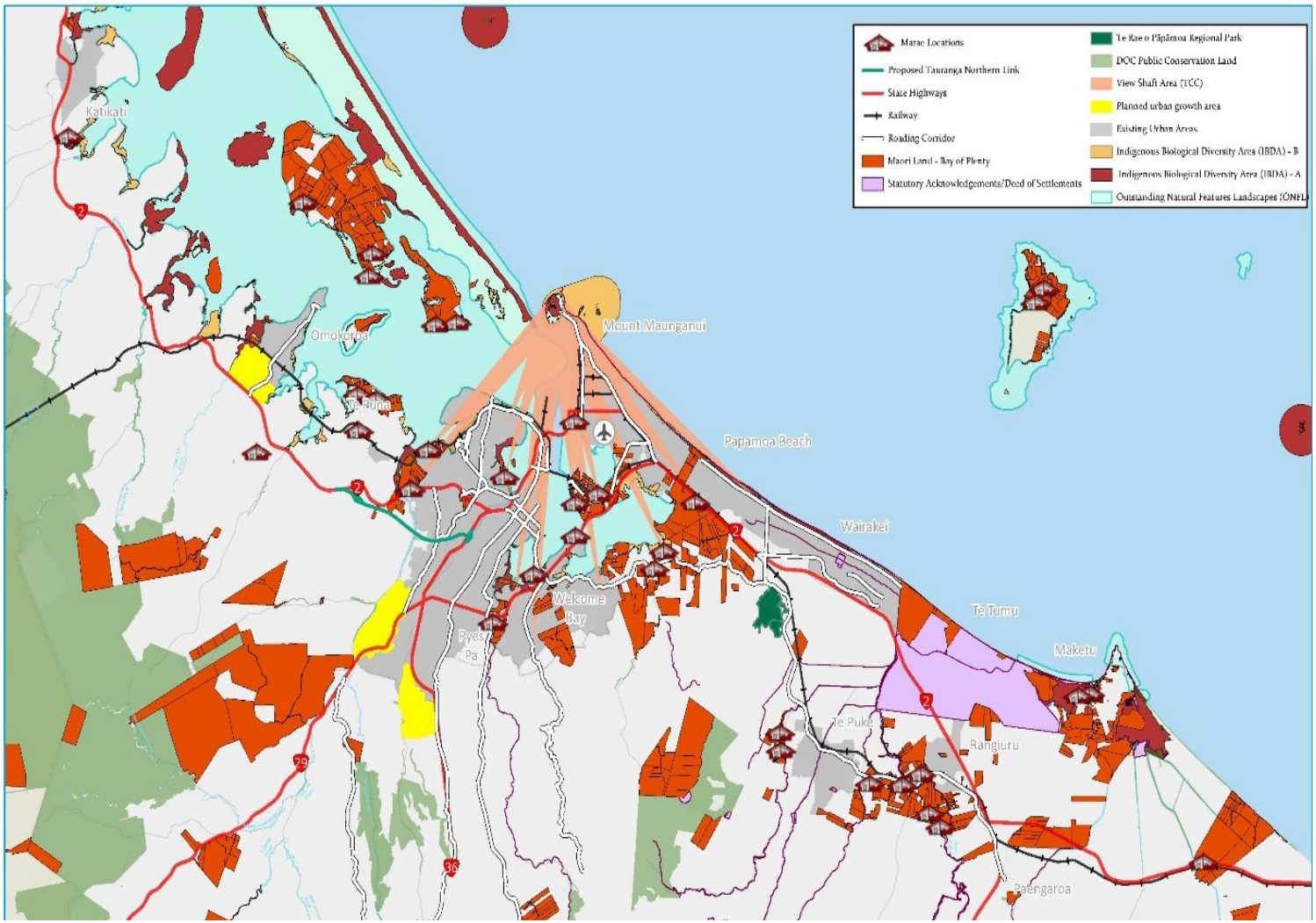
Figure 7.: Key theme from a desktop analysis of 16 iwi and hapū management plans.



The concept of an Iwi spatial plan, which He Manukura have developed, is new. It functions to bring together iwi and hapū values and place-based knowledge with social, cultural, economic, and environmental data and information.

The Iwi Spatial Plan will assist tangata whenua to determine their collective aspirations that impact on the spatial form and transport investments of the sub-region. A concept map for the way in which this spatial layer might work is provided in Figure 8. The development of the Iwi Spatial Plan will be one of the key initiatives for SmartGrowth, and upon its completion, the SmartGrowth Leadership Group will need to consider if any amendments to the settlement pattern and implementation programme to support the Iwi spatial plan are required.

Figure 8.: Initial Maori spatial base layer



Stakeholder insights

From its inception, UFTI sought to take a co-design approach to the development of key aspects of the Programme Business Case, — programme design and programme business case. Co-design means actively involving all stakeholders in the design process to help ensure the results meet partner needs and are usable. The SmartGrowth forums are a real strength of the SmartGrowth partnership and were instrumental in making this co-design approach possible.

Figure 9.: Stakeholder workshops and kanohi ki te kanohi engagement in UFTI.

The co-design approach has manifested itself in a series of workshops since May/June 2019 (Figure 9). The workshops were supplemented by a widely read and responded to stakeholder newsletter reaching 250 people and organisations, and an actively viewed website specifically for the UFTI project, where videos, technical publications and other material are regularly published.

Stakeholder comments on the UFTI Interim Report

Following publication of the UFTI Interim Report in December 2019, stakeholders were given the opportunity to provide more detailed comment via written submissions or emails. Twelve submissions were received.

As part of their commentary, the New Zealand Automobile Association shared the results of a member survey providing useful information about their members' perspectives on mode shift and use of public transport. The Carbon Reduction Group also provided feedback from a booth that they opened at Our Place on Willow Street, Tauranga. These insights have been considered in the UFTI work but also passed on to the partner Councils as information to support future engagement.

Key themes identified from stakeholder commentaries were:

- A general preference for a future urban form and transport system built around a high frequency public transport network and higher density communities, particularly those programmes emphasising intensification within the existing urban footprint
- The importance of considering social equity, housing and transport affordability and community wellbeing when thinking about transport and urban form particularly with the change demographic profile of the region (this commentary came from both business and social NGOs)
- Support for the idea of future-proofing to protect the option of using rail for passenger transport in the future as populations grow
- The importance of providing good amenities in urban environments, particularly where dwelling density is high
- The need to encourage both living and job activities in the central business district, along with high quality, attractive and accessible public spaces.
- Consideration of the four wellbeings and elements related to environmental sustainability
- The importance of providing for seasonal workers
- The importance of maintaining access for freight to the Port of Tauranga
- Understanding the function of places (e.g., the importance and location of rural communities and services)
- The need for a balanced investment programme addressing all parts of the transport system
- A general preference for future urban form and transport system built around a high frequency public transport network and higher density communities, particularly those programmes that emphasised intensification within the exiting urban footprint
- Strong support for a multimodal transport system, where transport choices across all modes are maintained
- The importance of providing good amenity in urban environments, particularly where dwelling density is high.
- The need to encourage both living and job activities in the central business district along with high quality, attractive public space.

Much of the feedback has concentrated on stakeholders' desired attributes of urban form rather than the specific spatial distribution of dwellings and jobs. This feedback has been reflected in a series of key urban form and transport implementation principles that are set out in Part 3 of this Report and will be used by decision makers as the UFTI Connected Centres program is delivered.

Part 2: Recap of our UFTI journey

Introduction

This section outlines the analysis completed to identify, develop, and shape the suite of UFTI programmes to arrive at the optimal Connected Centres programme for delivery.

Our growth challenges

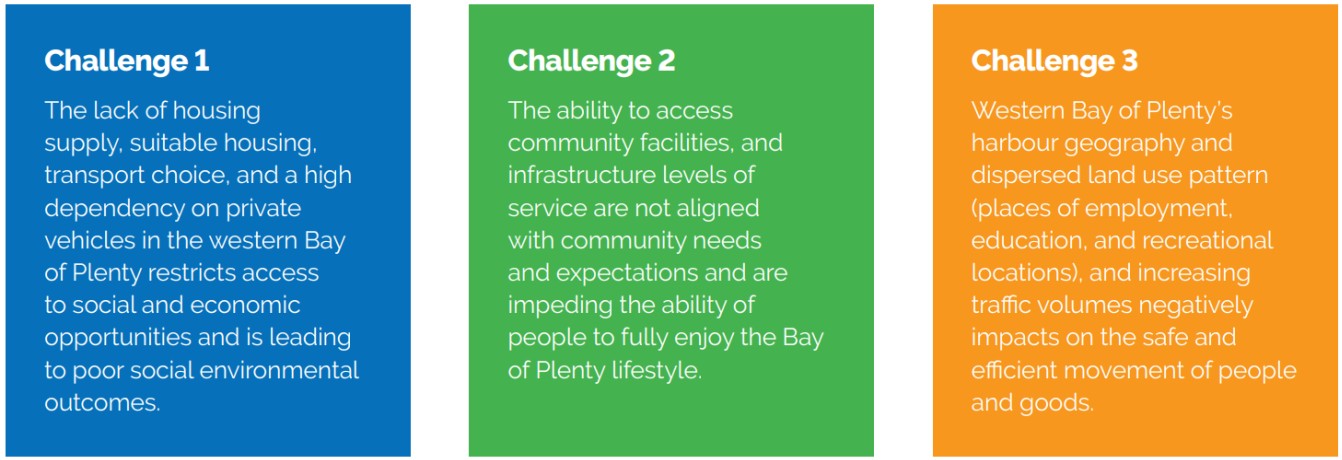
UFTI has taken a robust evidence-based approach to developing the three deliverables of work, using a business case approach. The Foundation Report published in August 2019[6] is the first phase sets out three high-level challenges for the sub-region's urban form and transport system. By identifying these long-term challenges, we can better manage the sub-region's growth in a way that is more beneficial for our social, cultural, environmental, and economic outcomes.

These challenges are based on the long-term growth issues that the sub-region is facing now and will continue to face. They are described in a way that explains the cause and effect of each challenge and remains valid with the various disruptions, both current and future, that will occur over time. In recapping the challenge statements from the Foundation Report, the evidence has not been updated for the Final Report. This is deliberate as the trends have largely stayed the same over the year that UFTI has been developed. Some individual elements of the evidence, such as housing affordability, has worsened, while the transport evidence is largely the same, with some adjustments at margins not significant enough to require a rethink of the programme direction. The challenges we face are summarised in Figure 10.

The second phase was the UFTI Interim Report which sets out the primary benefits to be achieved by addressing the long term challenges. The Interim Report importantly outlines the nine UFTI programmes developed, the multi-criteria assessment of these programmes, and the four shortlisted programmes in detail.

[6] The UFTI Foundation Report is available at www.UFTI.org.

Figure 10. UFTI challenges.

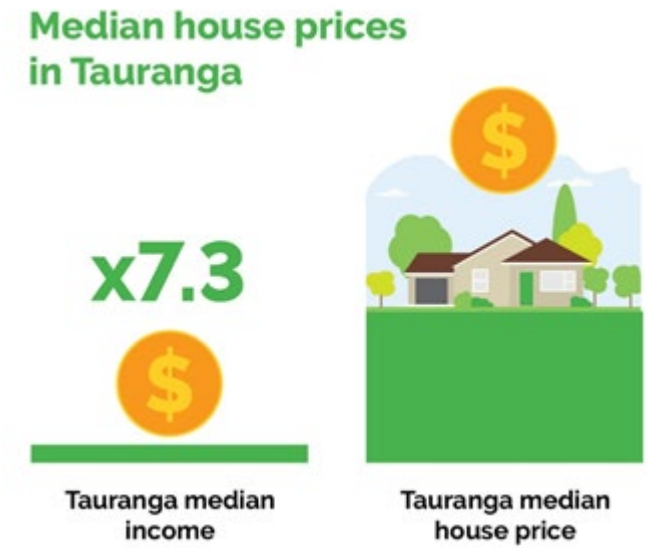


Challenge 1: Lack of housing and transport choice in the sub-region

The demand for housing in the western Bay of Plenty sub-region is almost exhausting the available supply. While particularly acute in the short and medium terms, the issue, unless addressed, will cause long-term consequences, particularly in relation to housing affordability. Land available for future housing supply is constrained, typically due to topography, natural hazards, suitable access, complicated or delayed planning processes, land tenure and developer decisions to withhold land for development or develop at a slower rate.

Tauranga City is one of New Zealand's least affordable housing markets, as shown in Figure 11. As a result, home ownership rates in Tauranga, particularly among first home buyers and establishing families, are declining, and are projected to drop to 58 percent in the western Bay of Plenty and 55 percent in Tauranga City by 2047.

Figure 11.: Median house prices in Tauranga.



There are also increasing rental shortage pressures in the sub-region. Renter stress is increasing and impacting households with higher incomes. Nearly 90 percent of renters report they cannot purchase a home priced at $500,000.[7] Throughout the sub-region, the strongest household growth is projected to occur in renter occupied dwellings. In Tauranga City, renters make up more than one in three households and by 2047, is expected to be nearer to one in two households.[8]

The poor affordability in the housing market also affects the rental housing market. There are significant financial pressures on younger generations and those looking for more affordable housing options, who are currently priced out of the housing market. Because of the mismatch between house prices, rent, and households' ability to pay, people are being forced backwards along the housing continuum. Unless housing affordability is addressed with both housing supply and income responses, it will be increasingly difficult to buy or rent within the sub-region.

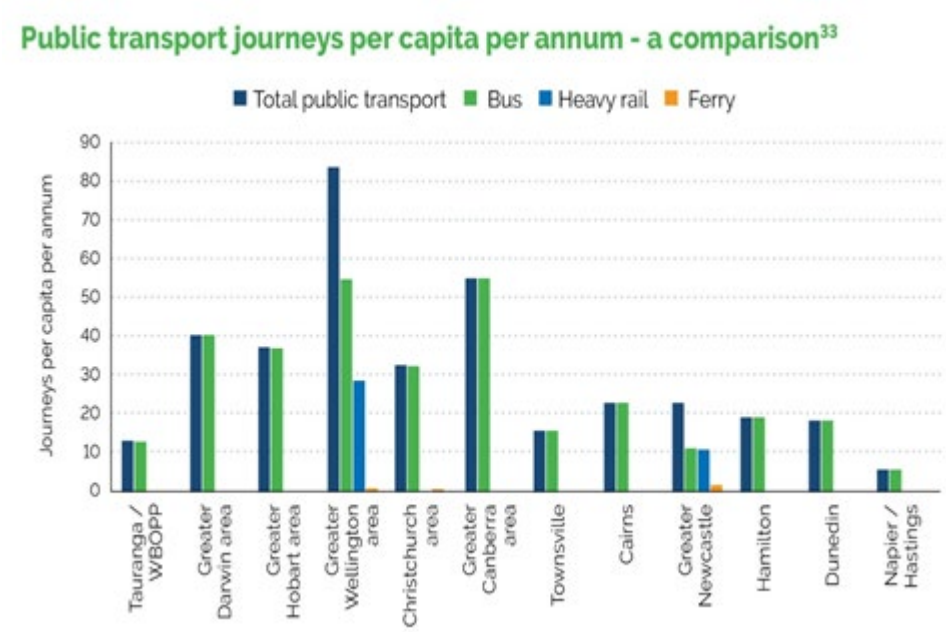
Compounding the housing affordability issues, is a lack of housing choice within the sub-region. Three and four-bedroom dwellings account for 71 percent of the growth in Western Bay of Plenty District and 78 percent in Tauranga City. The result is a lack of housing variety in the sub-region which has future implications with trends for smaller households.

The other aspect of housing choice is that location is important. With many of the new growth areas being on the fringes of the existing sub-region's urban areas distance and the availability of frequent public transport will become increasingly problematic, along with increasing living costs, as people have to travel longer to access what is important to them. Providing greater housing choices by balancing housing growth to enable both 'up and out' directions (intensification of existing urban areas, and new growth areas) increases both housing and transport choices available. Getting this balance right is critical for both housing, and the efficiency of the transport system for moving both people and goods effectively.

Currently, the sub-region is one of the most car reliant in New Zealand, with few alternative and viable transport choices available. While public transport options are available within the sub-region, the services are underutilised compared to similar cities, see Figure 12 and not all services

[7] SmartGrowth, Research Report, Housing need and demand in Tauranga and western Bay of Plenty, December 2017, Livingston and Associates Ltd/ Community Housing Solutions Ltd.
[8] Ibid.

Figure 12.: Public transport journeys comparison, per capita, per annum.



are optimised to provide good and timely customer access. [9] The public transport infrastructure in the sub-region (e.g. prioritisation lanes, queue jumping at intersections, bus shelters etc.) to support the services and help encourage modal shift is lacking and suffers from insignificant investment and focus. Similarly, there are limited safe options to support walking and cycling and other forms of personal mobility.

Providing greater transport choice and improving access to social and economic opportunities within the sub-region is critical going forward. This is particularly relevant for the sub-region, as future growth will mean it is increasingly difficult to move via single occupancy vehicles [10]. Therefore, maintaining good access via a multimodal transport system to the necessary social and economic opportunities through housing and transport choices will be critical to help manage growth.

In response to this challenge, many of the nine UFTI programmes developed, tested, and assessed, focussed on the balance of going up and out and the effects this could have for both housing and transport. Programmes that include greater levels of intensification within the existing urban and new growth areas help increase housing and transport choice. However, interventions (such as changing housing typography, improving productivity and therefore wage growth, partnering to deliver social and affordable housing initiatives, partnering to develop papakāinga, etc.) are also necessary to improve housing affordability within the sub-region. Each of the UFTI longlist programmes explores the tension between the land use and transport interventions.

[9] Analysis completed via the Draft Tauranga Transport Programme, July 2018.
[10] A single-occupancy vehicle is a privately operated vehicle whose only occupant is the driver.

Challenge 2: Access to community facilities and infrastructure levels of service are not aligned with community expectations and needs

The sub-region has struggled to keep pace with the occurring and continuing growth. Supporting growth requires significant resources to ensure there is sufficient infrastructure necessary to support the expected growth, as well as maintaining current levels of service. The balance between supporting new growth and existing areas is delicate and complex, particularly with the current financial constraints and where rates are the dominant local government funding tool. As a result, there appears to be an almost constant tension between community expectations and affordability for most issues requiring Council decisions.

With the sub-region's growing population and economy, access via private vehicle to the many community facilities will become increasingly difficult. With freight, service vehicles and commuters travelling on the same routes, often at peak times, there are delays and conflicts between the movements of people going to work, education, and accessing other social opportunities, as well as goods accessing manufacturers, distributors, and the Port of Tauranga. Within Tauranga, daily traffic is increasing —by approximately 8 percent per annum—the cumulative effect is that increasing growth in the sub-region is impacting on the wellbeing and productivity of our communities.

The experience of other cities nationally and internationally is increasing the road space to enable more single occupancy vehicles means significant trade-offs are required for little overall community benefit.[11] Instead, many cities are focusing on providing greater access and transport choice via frequent and predictable public transport services, improved walking and cycling connectivity to enable easy and safe access, and optimising the existing network to better support the movement of people and goods. This is also the direction set out *Arataki* and *Keeping Cities Moving* prepared by Waka Kotahi.

In addition to providing more transport choice, several Australian cities are carefully considering and planning community facilities and infrastructure in locations that are fit for purpose and accessible by the many modes of available transport. This means having a clear spatial plan that outlines where future growth is best supported by community facilities, public transport, active mode services and infrastructure.[12]

The design of many of the UFTI programmes within the long list test different approaches to land use and access via different modes and/or the prioritisation of different modes. The programmes that focus on less concentrated housing densities and increasing the number of roads or additional lane capacity tended to achieve fewer community benefits for the likely cost involved, when compared to programmes that focus on increasing intensification and enabling greater multimodal access.

[11] Streetfight: Handbook for an Urban Revolution by Janette Sadik-Khan and Seth Solomonow, 2016; Waka Kotahi *Keeping Cities Moving, 2019.*
[12] UFTI Comparator Cities Research Report.

Challenge 3: Dispersed land use and increasing traffic will impact of the safe and efficient movement of people and goods

The western Bay of Plenty sub-region has a peninsula-based harbour topography creating planning challenges which requires creativity in terms of where people live and how they move.

These natural sub-regional constraints, combined with urban growth and the location of the country's largest export port within the city, result in traffic conflicts at multiple locations, particularly at intersections. Infrastructure and demand are focused into a small number of key transport corridors, causing significant pinch points across the transport system.

Tauranga, like other medium-sized cities in New Zealand, has a relatively low population density and has experienced little change in dwelling densities despite the strong growth. A total of 80 percent of all new development in the sub-region is in new greenfield areas on the fringe of existing urban areas. The result is an urban form that is typically polycentric, which requires people to travel via constrained transport corridors.

A dispersed land use pattern is also more costly. While greenfield development is often considered to be the easier and cheaper option for developers, they require significant public resources and financial commitment to provide the supporting infrastructure. Ratepayers and taxpayers help subsidise new development, as developer contributions only partially contribute to the Council-provided public infrastructure and central government-funded transportation improvements, and do not carry the risk.[13]

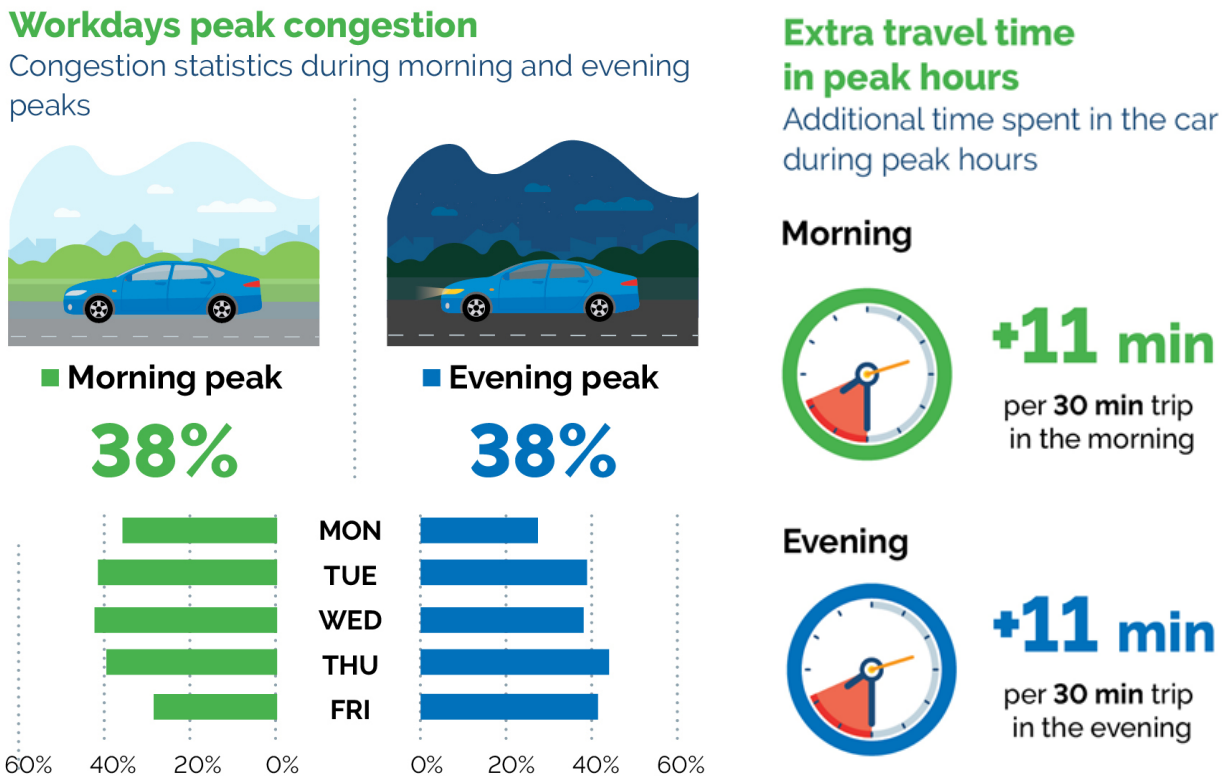
While dwelling densities have increased in Tauranga,[14] they remain at approximately 15–17 dwellings per hectare[15]. Further increases in densities are expected with the implementation of the recently completed Te Papa business case and forthcoming intensification change to the District Plan. However, intensification in the existing and new growth areas will need to reach an average of approximately 30 dwellings per hectare. The density increase is required to provide for future and expected population growth and support a well-functioning, high frequency, multimodal transportation system. The change is necessary, as moving people and goods via a multimodal transport system is more affordable, efficient, effective, and achieves better community outcomes. Transport systems designed around increasing levels of service for vehicles are costly, often lead to poor road safety and environmental outcomes, and create an unsustainable reliance on private vehicles.

While the sub-region's traffic delays are modest compared with other main New Zealand cities (see Figure 13), the delays will increase as a result of population growth. To help manage the flow and movement of people and goods, the longlist programme and Connected Centres

[13] Auckland Economic Quarterly, February 2019; CIE, Cost of Residential Servicing, 2015.
[14] Dwelling density in Tauranga changed by 5 percent between 2001 and 2013, while Auckland's increased by 33 percent in the same period.
[15] The more recent SmartGrowth Development Trends Report 2019, outlines in Tauranga City 93 percent of additional lots were created in greenfield urban growth areas in 2018/19. Of the new dwellings consented in Tauranga, 74 percent were in greenfield urban growth areas.

programme include a number of transport interventions to encourage more people to use different transport modes when travelling to work and education facilities, and improve pinch points, particularly at key intersections. Optimising existing routes, and improving intersections will help increase the movement of people and goods, improve road safety, and support walking and cycling.

Figure 13.: Workday peak delay.



UFTI benefits

There are many benefits in addressing the UFTI challenges. The key benefits UFTI focuses on include housing, movement, the environment, and prosperity. These are included in Figure 14.

Supporting the benefits are investment objectives. Investment objectives are key measures related to the benefits, which the UFTI programmes are assessed against.

The investment objectives used to help assess all the UFTI programmes are:

- Housing affordability (as measured by the ratio of median income to average dwelling price/rent) in the western Bay of Plenty is improving to be below the median by 2070.
- The proportion of the population living within travel thresholds (15, 30, 45 minutes) of key social and economic opportunities (including education, health care, supermarkets etc.) by different modes (walking, cycling, public transport, and vehicles) is improving as benchmarked against the main New Zealand cities.
- Transport emissions in the western Bay of Plenty reach net zero by 2050 and maintain this level into the future.
- The efficiency and effectiveness of the core freight network (road and rail) in the western Bay of Plenty is improving.

Figure 14: UFTI benefits from addressing the challenges

Additional key performance indicators (KPIs), and secondary measures to enable monitoring of the UFTI optimal programme are included in Part 4 of this Report. These additional KPIs and measures will be monitored regularly and help develop the necessary benefit realisation monitoring.

Developing the long list of UFTI programmes

The development of the UFTI programmes has taken place over the entirety of the year-long project. The methodology used to identify land use and transport options and alternatives, develop programmes, assess the programmes, and further analyse and test the shortlisted programmes is included in the UFTI Supporting Technical Report. A brief outline of the programme development methodology is set out in Figure 15.

Figure 15. Summary of the UFTI programmes development methodology.

Within the nine UFTI programmes, different land use options and transport responses were tested. This was deliberate to help identify the optimal future land use, urban form, and transport system options to best enable people to continue their live, work, learn and play lifestyles. For example, the Compacted and Connected Programme was focussed on growing upward vertically to conserve space and maximise efficiency of the transport system through a highly concentrated, dense urban form. Other programmes considered use of the existing rail system for public transport. Between all of the long listed programmes, a large number of possible land use and transport interventions were explored and tested.

Assumptions applied for the long list of UFTI programmes

In developing the long list of UFTI programmes, several assumptions for all the programmes were applied. These were:

1. The current Regional Policy Statement and agreed SmartGrowth land use pattern to be delivered (including Te Tumu, Tauriko, Ōmokoroa, Rangiuru, and intensification). These areas only include 'planned urban growth areas (medium term)' which allow for 30 years of development based on the current and agreed SmartGrowth settlement pattern.
2. Improvements to the Ōmokoroa intersection, and Pāpāmoa East and Rangiuru interchanges, are designed to support public transport access and are constructed.
3. The public transport network will be expanded further i.e., frequency, routes, and other aspects to support the main public transport journeys developed in each programme.
4. The Tauranga Northern Link (Te Puna to SH29) improvement with managed lanes (as per the re-evaluation direction endorsed by the Waka Kotahi Board) is constructed.
5. The strategic cycle network for the western Bay of Plenty and within Tauranga is completed.
6. The Tauriko Network Connections multimodal improvements (local roading, public transport, walking and cycling, and state highway), based on the yet-to-be-finalised detailed business case (DBC), are constructed to support the current agreed Tauriko industrial and residential estate as per SmartGrowth.[16] Further development of Tauriko beyond the current SmartGrowth settlement pattern is not included as a base assumption.
7. For most of the programmes, the function of 15th Avenue and Turret Road is to support local movements and is not for providing a SH29 to SH29A 'through' connection unless otherwise stated.
8. The Te Papa peninsula intensification and the proposed Te Papa multimodal transport system improvements will be incorporated into the preferred UFTI programme.
9. All other assumptions (such as the Ōmokoroa to Te Puna capacity improvements (New Zealand Upgrade Programme), Katikati bypass, Elizabeth Street/State Highway 2 intersection improvement) are options that are not included and can be tested.

[16] Tauriko Business Estate extension, Tauriko West, and Keenan Road development areas

It is noted in testing the shortlisted programmes further, some of these assumptions were refined. In addition, the government has since agreed it will invest in the Omokoroa to Te Puna capacity improvements, along with the Tauranga Northern Link. The refinements are included as part of the analysis of the shortlisted programmes.

The longlisted programmes were evaluated by a technical expert review group with strong urban form and transport experience before being assessed using the multi-criteria assessment (MCA). Based on further review, two of the longlisted programmes (metro rail-based programmes) were merged, leaving seven new programmes and one comparator premised on extending out the current SmartGrowth settlement pattern policy settings. From the MCA, the three short-listed programmes achieved the best balance across the UFTI investment objectives and success factors.[17]

Refining the four shortlisted UFTI programmes

Three of the UFTI programmes were shortlisted and the comparator programme were considered further via transport modelling, planning assessments, and economic and financial analysis. These programmes were: Dispersed growth; Two Urban centres; Connected Urban Villages; and Rail-Enabled Growth.

The key aspects of the shortlisted programmes are described in more detail in the UFTI Interim Report, along with an outline of the look and feel or each programme and how people could experience the live, work, learn and play aspects of the sub-region in the future. A summary of each programme is included in this section, as well as a summary of key themes received from the stakeholder engagement, the key technical analysis undertaken, and the refinements made to develop the final UFTI optimal programme.

Summary of the shortlisted programmes

A brief recap of each programme is below. The recap is to assist with the understanding the more detailed analysis of each of the shortlisted programmes.

[17] All of the programmes have been assessed using a multi-criteria assessment, based on the UFTI investment objectives, and high-level success factors. A summary of the multi-criteria assessment is outlined in the UFTI Interim Report and the full multi-criteria assessment is available on the UFTI website.

Figure 16. UFTI Dispersed Growth shortlisted programme.

Figure 17. UFTI Two Urban Centres shortlisted programme.

The Dispersed Growth programme (see Figure 16) is based on 15 percent intensification: 85 percent greenfield development. The density of the growth areas would be similar to the present 12–17 dwellings per hectare, making it difficult to provide effective and efficient public transport services. Additional roads and lane capacity across the transport system would be required to support the additional growth expected and provide some access.

The Two Urban Centres programme (see Figure 17) is based on all new residential growth being located in the Eastern and Western Corridors, with some intensification in the Te Papa and Otūmoetai areas around key transport corridors. To enable the City/East movement, a new harbour crossing is included primarily for public transport and rail services (not passenger rail). The additional crossing (shown within the current Matapihi crossing) helps relieve pressure on SH2/Hewletts Road and in doing so, frees up some freight movements to the Port of Tauranga.

Within the Two Urban centres programme, priority corridors for public transport are enabled to help move people to jobs, education, and other destinations. The expected additional traffic volumes because of growth is likely to increase congestion to the point where access and productivity could be impacted particularly for sectors that rely on the movement of people and goods.

Figure 18.: UFTI Connected Urban Villages programme.

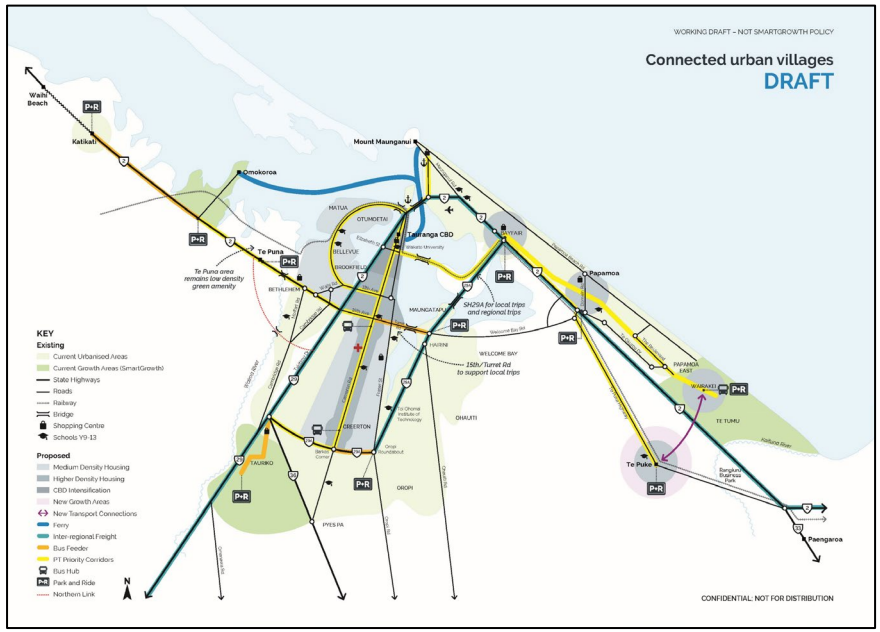
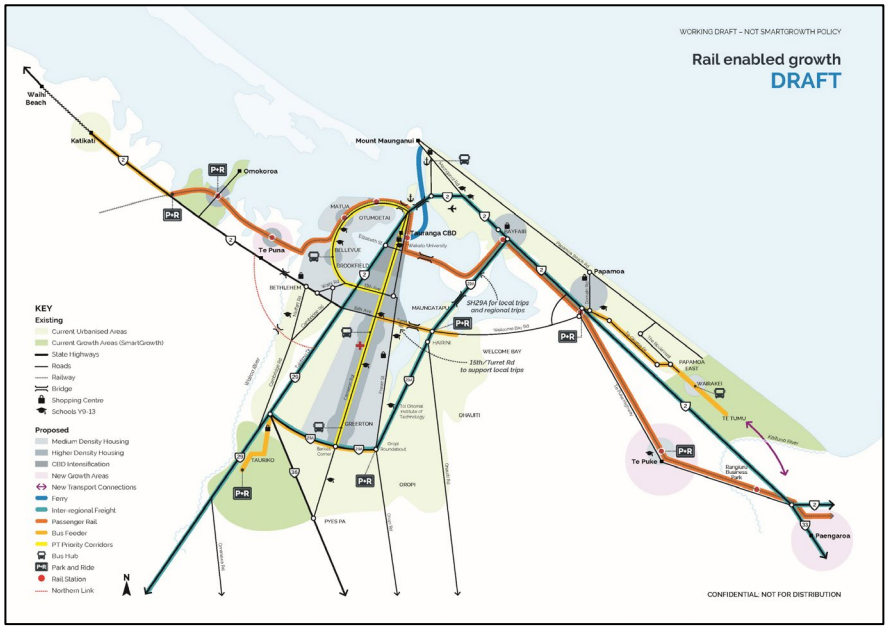


Figure 19.: UFTI Rail-Enabled Growth programme.



The Connected Urban Villages programme (see Figure 18) is based on a multimodal transport system with prioritised frequent bus-based public transport, connected walking and cycling routes, and freight prioritisation to move people and goods throughout the sub-region. Intensification of the existing urban areas and new growth areas is significant, with multi-storey (3–6-level) dwellings being the norm. Urbanisation at scale within the Matapihi area is included, acknowledging if this were to occur it would need to be led by landowners. No growth in Te Puna is included in this programme.

The Rail-Enabled Growth programme (see Figure 19) includes using the rail network to move people from the Northern and Eastern Corridors into the CBD. A frequent bus-based public transport system would support the rail movements, along with a ferry service between Mount Maunganui and the CBD. Additional growth is enabled in the north and east along with intensification predominantly in Te Papa and Otūmoetai areas and at other key areas such as Bayfair/Baypark and Pāpāmoa. Increased dwelling densities around core transport-based hubs would be implemented to further encourage public transport movements.

Each of the shortlisted programmes have been designed to consider different land use forms and densities, and the transport system response associated with the land use, to enable people to move from where they live, to where they need to go.

Testing the shortlisted programmes

To further test and analyse the shortlisted programmes, the following technical and analytical aspects were completed:

- An assessment of the interventions required to ensure the strategic function of the Corridors was maintained under each scenario
- Strategic transport modelling using the Tauranga Transport Model (TTM)
- Economic analysis to provide a rough order estimate of programme costs and their indicative economic efficiency rating
- Ideas and considerations of the UFTI options from a tangata whenua perspective
- A more detailed land use and constraints analysis via a Planning Assessment

In addition to these and the technical and analytical reviews, the shortlisted programmes were tested with key stakeholders which are also summarised.

Core assumptions used in testing the UFTI programmes

To assist with the additional testing and analysis of the shortlisted programmes, some additional programme assumptions were developed, as below:

1. The agreed timeframes and population for the UFTI programmes are:
    a. A shared 'envisioned' 50–100 years spatial plan outlining the key land use and transportation moves based on a population scenario of 400,000 people.[18]
    b. For the first 30-year delivery plan (2020-2050), the NIDEA sub-region population forecast of 269,000 people is used. [19]
2. The starting point for the land use is the Regional Policy Statement and agreed SmartGrowth settlement pattern (including Te Tumu, Tauriko West/Keenan Road, Omokoroa, Rangiuru, and intensification of existing urban areas).

[18] The population scenario is based on the high end of NIDEA population forecasts and takes in account growth to date, and the context of where the western Bay of Plenty sits within the Upper North Island.
[19] Western Bay of Plenty District and Tauranga City are expected to have approximately 67,000, and 202,000 people, respectively.

3. Key strategic assets such as the Port of Tauranga, the Tauranga Airport, and the Tauranga Hospital will not move within the planned UFTI timeframes.

In addition, the above assumptions, the following assumptions were applied to the Connected Centres programme:

1. Matapihi is to remain low density rural land use unless landowners change their aspirations for the land.
2. The current Matapihi rail crossing is shown in some programmes to include passenger rail, public transport, and walking and cycling connections. This is for illustrative purposes only and the additional harbour crossing (subject to further investigations) could be anywhere in the harbour between the current SH2 Harbour Crossing and the Turret Road bridge.

All of the additional assumptions were necessary to assist with the technical analysis and help ensure consistencies in testing the shortlisted programmes.

Interventions required to support strategic transport journeys

Great cities enable people to move and is where the delicate balance between people, place, and movement has been achieved. For the western Bay of Plenty, this means we need to ensure our journeys enable and support our live, work, learn and play lifestyles and aspirations.

Different transport journeys, within the subregion, need to offer different customer experiences. These journeys need to work as a 'system' to ensure the right balance of moving people and goods, at the right time and place, is achieved. A strategic journey performs multiple functions for different users, modes, and movements. The way journeys are designed support different users at different levels of priority.

An example of this is the projected growth in freight for the region and increased need to access the Port and key surrounding industrial and commercial centres, resulting in an increased demand for access. It is important strategic transport journeys are optimised to ensure the best use of the transport system is being achieved, this is often summarised as the right mode(s), on the right route at the right time.

Making a choice about what modes are prioritised and therefore are supported by the appropriate level of infrastructure, services, and policy relates to the strategic function intended for that journey. This needs to be determined in consideration of the movement and place function of the wider corridor context, and journey. Strategic transport journeys provide for a recommended priority movement/mode based on the UFTI end-state intent. Some journeys may have more than one priority mode, and some may have different priority modes at various times of the day.

To support the assessment of the short listed and the comparator programmes and design of the UFTI Connected Centres programme, the critical sub-regional journeys and their strategic functions and movement/modes priorities have been identified (see Figure 20) based on the previous transport planning work already completed.[20][21]

Based on the strategic transport journeys, a number of transport interventions were included in each programme to support future growth and intensification areas and enable the journey function to deliver a multimodal transport system that reduces, within reason, the conflict between the movement of people and goods. For example, based on the strategic transport journeys the transport improvements proposed for 15th Avenue and Turret Road need to balance the linking function for all modes with the place function this journey has in terms of the Te Papa intensification and redevelopment plans. Achieving the balance will be easier as the strategic journey function for this corridor is to enable a place function rather than providing a state highway to state highway through connection. The final optimal programme will be designed to ensure the strategic transport journeys are delivered.

[20] The report WBoP Strategic Transport Journeys Strategic Functions is attached in Part 5 of this report.
[21] The freight function on SH2 beyond Omokoroa is recognising the managed lanes within the Tauranga Northern Link and NZ Upgrade programme to support critical movement of goods going to/from Coromandel and for local horticulture and agriculture products.

Figure 20. UFTI western Bay of Plenty strategic transport journeys - strategic functions

Transport modelling

The shortlisted programmes were all tested via the Tauranga Transport Model. Because of the high-level nature of the programmes and the time available, the following assumptions were consistently applied in transport modelling:

1. Programmes were tested for a 30-year population forecast scenario of 269,000 people, and an approximate 70+ year population scenario of 400,000 people. Modelling of other horizon years was not undertaken.
2. The 30-year modelling scenario is consistent across all UFTI shortlisted programmes. This relates to the assumption that the current SmartGrowth settlement pattern is unchanged. New growth identified in each of the shortlisted programmes is only included in the longer term, 400,000 population, scenario.
3. A consistent set of transport system assumptions (e.g. network and PT service improvements) was included in the 30-year scenario. These are derived from past projects and agreed with the project partners for this task. For the longer-term scenario modelling, additional transport assumptions were included to best enable the programmes to be compared.

The purpose of the transport modelling was to provide guidance and enable the comparison of transport-related UFTI benefits and outcomes. The modelling was not used to refine or design transport interventions to include in the programmes.

There is a high degree of uncertainty in transport modelling of a long-term (70+ years) scenario, given how peoples' travel choices and behaviours will change over time, and how current and future technology will influence our movement choices and options. The uncertainties also apply to the 30 year modelling, to a slightly lesser extent. As such, modelling of the long-term programmes was only used to compare programmes and provide a very high-level macro indication of potential outcomes in the future. The high-level results of the transport modelling are outlined in Table 1. The UFTI modelling report is included in Part 5 of this report.

Table 1. Summary of macro transport modelling – high level and indicative key outputs

Programme	Increase of people from 2048 scenario to shortlist scenario	Increase in VKT from 2048 scenario to shortlist scenario	Increase in CO_2 from 2048 scenario to shortlist scenario	Transport crash costs from 2048 scenario to shortlist scenario	Jobs accessible in 45 minutes by public transport from 2048 scenario to shortlist scenario	AM Peak PT + cycle mode share from 2048 scenario to shortlist scenario
Connected Urban Villages	50%	33%	22%	$243m	50%	19%
Rail-Enabled Growth		35%	23%	$246m	51%	17%
Two Urban Centres		38%	26%	$259m	38%	15%
Dispersed Growth		36%	24%	$252m	34%	15%

Within the modelling results and the summary presented, it is important to note:

- A significant increase in vehicle kilometres travelled is predicted and the levels of service for general traffic are expected to decline because of growth. The decline in levels of service occurs within the 30-year and 400,000-population model runs, particularly where there are already constraints—such as on SH2/Hewletts Road and the SH29A Hairini/Welcome Bay Road interchange.
- Programmes with higher land use densities (30 dwelling per hectare or more) have better accessibility through public transport and walking and cycling.

- None of the shortlisted UFTI programmes achieve free flowing peak movement, which is to be expected given the growth forecast and future size of Tauranga City. The shortlisted programmes and Connected Centres programme focus on maintaining access and improving transport choices.
- Managed lanes are used within the model across the programmes to provide public transport and freight access.
- The model scenarios include demand management and pricing initiatives such as changing carparking policies to increase turnover and encourage modal shift.

Based on the model findings and the assumptions, the Connected Urban Villages programme is expected to achieve slightly more of the UFTI transport-related benefits than the other shortlisted programmes. In light of this, several of the transport-based activities have been included in the Connected Centres programme.

Economic analysis

An economic analysis of the shortlisted UFTI programmes against a 'do-minimum'—made up of a limited number of short to medium term activities, along with ongoing increases in public transport and active modes to meet the demand of mode shift—was undertaken using and piloting the Indicated Efficiency Rating tool (IER), recently designed by Waka Kotahi. This is one of the first projects where the IER Tool has been used to evaluate the economic efficiency of land use and transport programmes.

A summary of the economic analysis using the IER Tool is included in Table 2. The analysis suggests the Connected Urban Villages programme has a slightly higher efficiency ratio range at 1.2–1.6 than the other shortlisted programmes.

Within the IER Tool limitations, the analysis has been useful to quickly test high-level integrated land use and transport programmes, particularly the impact of different urban form. Being able to test the latter is important because, for the first time, there is a tool that can be used to assess the interplay of land use / urban form and transport, rather than the other way round. In effect, through the UFTI shortlisted programmes and the IER Tool, the transport system is being optimised to support the type of urban form that communities and the SmartGrowth Partners want and are willing to pay for.

To assess the various programmes with investment spread over many years, the default discount rate (6 percent) has significantly reduced the value in the future years and hence solely focusing and comparing on the present values of cost may not give a true picture of investment required. For instance, reducing the discount rate to 4 percent would increase the Rail-Enabled Growth programme costs by more than $500 million (present values). This is far greater than the other programmes, which increase by between $200–400 million.

From the initial analysis, it is clear that the key driver of transport benefits is the urban form, with the programmes that have greater density achieving greater benefits. For example, the Connected Urban Villages programme is more compact than the Two Urban Centres programme. This means that the average journeys to work and education are 30 percent shorter in Connected Urban Villages, thereby making active mode and public transport a much more attractive choice, and significantly reducing congestion and travel times.

Table 2. Indicative efficiency ratio (IER) analysis.

Benefits	Assumptions	Do minimum (PV $m)	Dispersed Growth (PV $m)	Rail enabled growth (PV$)	Connected urban villages (PV$)	Two urban centres (PV$)
Safety	Proportional to population growth		$220m	$221m	$ 220m	$220m
Access – Active Modes	Proportional to population density or closeness to rail		0	$26m	$26m	$0m
Access – Congestion	Proportional to population growth, and density or closeness to rail		$470	$711m	$704m	$590m
Access – Resilience	All progs assumed equally resilient		N/A			
Access – Public Transport	Proportional to population density or closeness to rail		$30	$77m	$81m	$54m
Wider economic benefits (WEBs)	15% of total benefits		$76	$118m	$118m	$96m
Total Net Benefits (PV, $m)		**Not Analysable**	**$576m**	**$1,154m**	**$1,149m**	**$960m**
Total Net Costs (PV, $m)		**$511m**	**$920m**	**$964m**	**$947m**	**$999m**
IER		**N/A**	**0.6**	**1.2**	**1.2**	**1.0**
Total programme costs (undiscounted)		**$2b**	**$5.1b**	**$7.8b**	**$5.3b**	**$5.1b**
Total programme capital costs (undiscounted)		**$400m**	**$2.2b**	**$2.9b**	**$2.2b**	**$2.2b**
IER (construction at same time at full growth)	Single year construction at full growth	N/A	0.6 – 1.0	1.3	2.1	1.6
IER Range (based on 4% discount rate, lower/higher growth profile)		N/A		1.2 - 1.5	1.2 - 1.6	0.9 - 1.3

Normally the 'do-minimum' programme is assessed against the 'do-nothing' programme, where the 'do-nothing' is basic maintenance only programme, and the 'do-minimum' contains some with simple, single activity (e.g. added capacity on one route) interventions. For the UFTI economic analysis, however, the 'do-minimum' involves multiple activities and is complex as it needs to deal with a high growth rate in population and transport movements within the sub-region. This means the 'do-nothing' programme would quickly exceed the capacity of the transport systems and do so relatively early in the evaluation period. In a practical sense, there might not be "grid lock" but peak traffic periods would extend, more people could use public transport, and economic activity could be suppressed because some people would avoid travelling, and goods would be more costly to deliver.

As evidenced by the transport model, a 'do-nothing' programme cannot be sensibly analysed. For the UFTI economic analysis, the IER Tool is not able to "model" this in the same way it would like a transport model. Instead general transport planning principles have been adopted to assess when the transport system is at capacity or beyond. The 'do-minimum' programme is then an attempt to determine the investment needed to enable a transport system that, over time, can accommodate the transport movements expected with growth. As the IER Tool is not a model, and uses relatively simplified principles and relationships, the approach applied means that determining the true 'do-minimum' programme, especially for long-term planning horizons is relatively coarse.

The costs presented in Table 2 include additional operational and maintenance costs (across all programmes), mainly for the purpose of inclusion as part of the economic analysis. The programme elements have broadly been staged (i.e., within first 10 years, 10 to 30 years, and 30+ years) and a default discount rate of 6 percent has significantly reduced the values incurred in the future years. As such, comparison of the total net costs in the table does not give a true picture of the financial costs required, as some programmes will have far greater financial costs in the later years.

To test the logic of the economic analysis, New Zealand-focussed and international research about the cost savings per household and benefits arising from more compact urban forms has been used as a broad comparator. Based on this research, the cost saving for transport infrastructure of a compact city form when compared to a more dispersed city range from $25,000 to $50,000. When applied to the western Bay of Plenty sub-region with a potential increase of approximately 62,000 additional dwellings, the costs saving could be $1.5 to $2.5 billion over 50 years, or a net present value (NPV) of around $0.75 to $2 billion. This potential cost saving broadly matches the cost difference between the programmes with a more compact urban form, and those with a more dispersed settlement pattern.

Considerations of the UFTI shortlisted programmes from a tangata whenua perspective

The He Manukura expert Māori panel has provided an initial and high-level assessment of the UFTI shortlisted programmes. In presenting their commentary thus far, it is important to acknowledge that the He Manukura expert panel was unable to engage more widely with tangata whenua due to COVID-19 restrictions. As such the commentary outlined here is not representative of a preference for a potential shortlisted programme. There is further engagement work still required by UFTI and their partners in order to provide the opportunities necessary for tangata whenua, as an equal partner, to provide a greater voice about the long-term direction for the western Bay of Plenty sub-region. This will be done through the development of the Joint Spatial Plan following UFTI.

The commentary in Table 3 outlines some important considerations of the proposed options being advanced by UFTI at this time. The commentary assesses the shortlisted programmes presented across a limited set of considerations.

Table 3. He Manukura initial high-level assessment.

Considerations	Rail-Enabled Growth	Connected Urban Villages	Two Urban Centres	Dispersed Growth
General comments – Māori and community	More compact development – Omokoroa, Te Puna, Bellevue/Brookfield, Matua, Otūmoetai, Te Papa, Bayfair, Pāpāmoa, Wairakei, Te Puke Opportunities for new growth – Te Puna, Te Puke, Paengaroa Central PT priority and bus feeders – Katikati to Omokoroa, and Te Tumu to Pāpāmoa	More compact development – Te Papa, Bayfair, Pāpāmoa, Wairakei, Te Puke Opportunities for new growth – Te Puke PT priority south, north, and east	More compact development – Te Papa, Te Puke, Wairakei, Te Tumu. Opportunities for new growth – Te Puke, Pyes Pa PT priority east, central, south, bus feeder north	Greenfields development between Tauranga and Waihi Beach, Tauriko, Pyes Pa to Kaitemako, Pāpāmoa to Paengaroa Potential new transport connections

Considerations	Rail-Enabled Growth	Connected Urban Villages	Two Urban Centres	Dispersed Growth
Impact on Māori land development	Potential to impact on Māori and in Paengaroa and Manoeka. Could provide employment connection for horticulture – kiwifruit	Potential to impact on Māori land in Manoeka. Could provide employment connection for horticulture – kiwifruit	Potential to impact on Māori land in Manoeka. Could provide employment connection for horticulture – kiwifruit	Potential impact on Māori land across the sub-region
Impacts on Māori communities	Poor connections in Welcome Bay Potential impacts on Matapihi community with increased frequency of passenger transport. Improved transport access for communities – Te Puna, Matapihi, Bayfair, Te Manga/ Kairua, Pāpāmoa, Te Puke, Paengaroa	Poor connections in Welcome Bay Potential impacts on Matapihi community with new bus route across the Matapihi bridge and increased frequency through Matapihi	Poor connections in Welcome Bay Potential impacts on Matapihi community with new bus route across the Matapihi bridge and increased frequency through Matapihi	Highly dependent on private vehicle use – particularly for Māori communities Increased congestion Community isolation and severance
Impact on sites of cultural significance	No identified direct impacts on cultural sites. Need to consider unknown sites and potential to unearth significant heritage.	No identified direct impacts on cultural sites. Need to consider unknown sites and potential to unearth significant heritage.	No identified direct impacts on cultural sites. Need to consider unknown sites and potential to unearth significant heritage.	No identified direct impacts on cultural sites. Need to consider unknown sites and potential to unearth significant heritage.

Considerations	Rail-Enabled Growth	Connected Urban Villages	Two Urban Centres	Dispersed Growth
Impact on taonga landscapes	Potential impacts on Tauranga harbour with an upgrade of the Matapihi bridge to accommodate passenger rail. Growth communities like Paengaroa need to consider impacts on Kaituna catchment Versatile soils also need to be considered Any future settlement may need to consider co-governance arrangements over the Tauranga Harbour	Potential impacts on Tauranga harbour with an upgrade of the Matapihi bridge to accommodate public transport – buses, and increases to walking and cycling Any future settlement may need to consider co-governance arrangements over the Tauranga Harbour	Potential impacts on Tauranga harbour with an upgrade of the Matapihi bridge to accommodate public transport –buses, and increases to walking and cycling Any future settlement may need to consider co-governance arrangements over the Tauranga Harbour	Any future settlement may need to consider co-governance arrangements over the Tauranga Harbour
Impacts on environment	Increased growth means increased pressure on infrastructure – particularly Three Waters Growth communities for Paengaroa would require infrastructure for transport, and 3 waters. Could put significant pressure on existing infrastructure –	Increased growth means increased pressure on infrastructure –particularly Three Waters. Growth communities for Te Puke would require infrastructure for transport, and Three Waters. Could put significant pressure on existing infrastructure –	Increased growth means increased pressure on infrastructure – particularly Three Waters. Growth communities for Te Puke would require infrastructure for transport, and Three Waters. Could put significant pressure on existing infrastructure –	Increased growth means increased pressure on infrastructure – particularly Three Waters. Any future settlement may need to consider co-governance arrangements over the Tauranga Harbour

Considerations	Rail-Enabled Growth	Connected Urban Villages	Two Urban Centres	Dispersed Growth
	particularly Waiari. Need to consider the Te Maru o Kaituna co-governance arrangements. Any future settlement may need to consider co-governance arrangements over the Tauranga Harbour	particularly Waiari. Need to consider the Te Maru o Kaituna co-governance arrangements. Any future settlement may need to consider co-governance arrangements over the Tauranga Harbour	particularly Waiari. Need to consider the Te Maru o Kaituna co-governance arrangements. Any future settlement may need to consider co-governance arrangements over the Tauranga Harbour	
Opportunities for Māori land development	Number of Māori land blocks in Paengaroa, Te Puke, Welcome Bay, Kairua, Mangatawa, Matapihi, and Te Puna	Number of Māori land blocks in Te Puke Opportunities for park and ride facilities on Māori land next to public infrastructure – Te Puke, Pāpāmoa, Te Maunga, Matapihi, Te Puna	Number of Māori land blocks in Te Puke Opportunities for park and ride facilities on Māori land next to public infrastructure – Te Puke, Pāpāmoa, Te Maunga, Matapihi, Te Puna	Opportunities for Māori landowners to develop land for papakāinga
Missed opportunities	Poor connections through Māori communities like Welcome Bay Does not consider relocation of airport to Paengaroa Does not consider releasing Tauranga racecourse and/or golf course for urban development	Lost opportunities for Māori land in Paengaroa and Te Puna Poor connections through Māori communities like Welcome Bay Does not consider relocation of airport to Paengaroa	Lost opportunities for Māori land in Paengaroa Poor connections through Māori communities like Welcome Bay Does not provide for development on northern urban fringe – Te Puna	Limited public transport provision

Considerations	Rail-Enabled Growth	Connected Urban Villages	Two Urban Centres	Dispersed Growth
	Unclear whether Smiths Farm is considered	Does not consider releasing Tauranga racecourse and/or golf course for urban development Unclear whether Smiths Farm is considered	Does not consider relocation of airport to Paengaroa Does not consider releasing Tauranga racecourse and/or golf course for urban development Unclear whether Smiths Farm is considered	

The themes coming through the He Manukura commentary provided by is programmes enabling for a more compact urban form, have greater social and affordable housing options, and increase transport choices for Māori, are more likely to align with the values of tangata whenua than other programmes. These themes are recognised and included where they can in the refined and final UFTI programme.

Land use and constraints analysis

Using resources such as the constraints maps (Figure 21 and Figure 22), knowledge of current and pending national policy statements and past work conducted by the partners on development feasibility, the UFTI team assessed the differences between each of the programmes. The assessment was undertaken using a qualitative, knowledge-based assessment of the advantages and potential consequences of development in each identified growth area and the associated risks and uncertainties.

The assessment (see Table 4) also considered alignment with emerging national policy statement requirements and the performance of the programmes against the UFTI benefits and investment objectives. This assessment was recorded in the report 'Planning Assessments of the UFTI Programmes Shortlist' and is reproduced in full in Part 5 of this report. The key observations from the assessment are summarised below:

Figure 21. Western Bay of Plenty wāhi toitū (no-go layer constraints) and wāhi toiora (go carefully constraints)

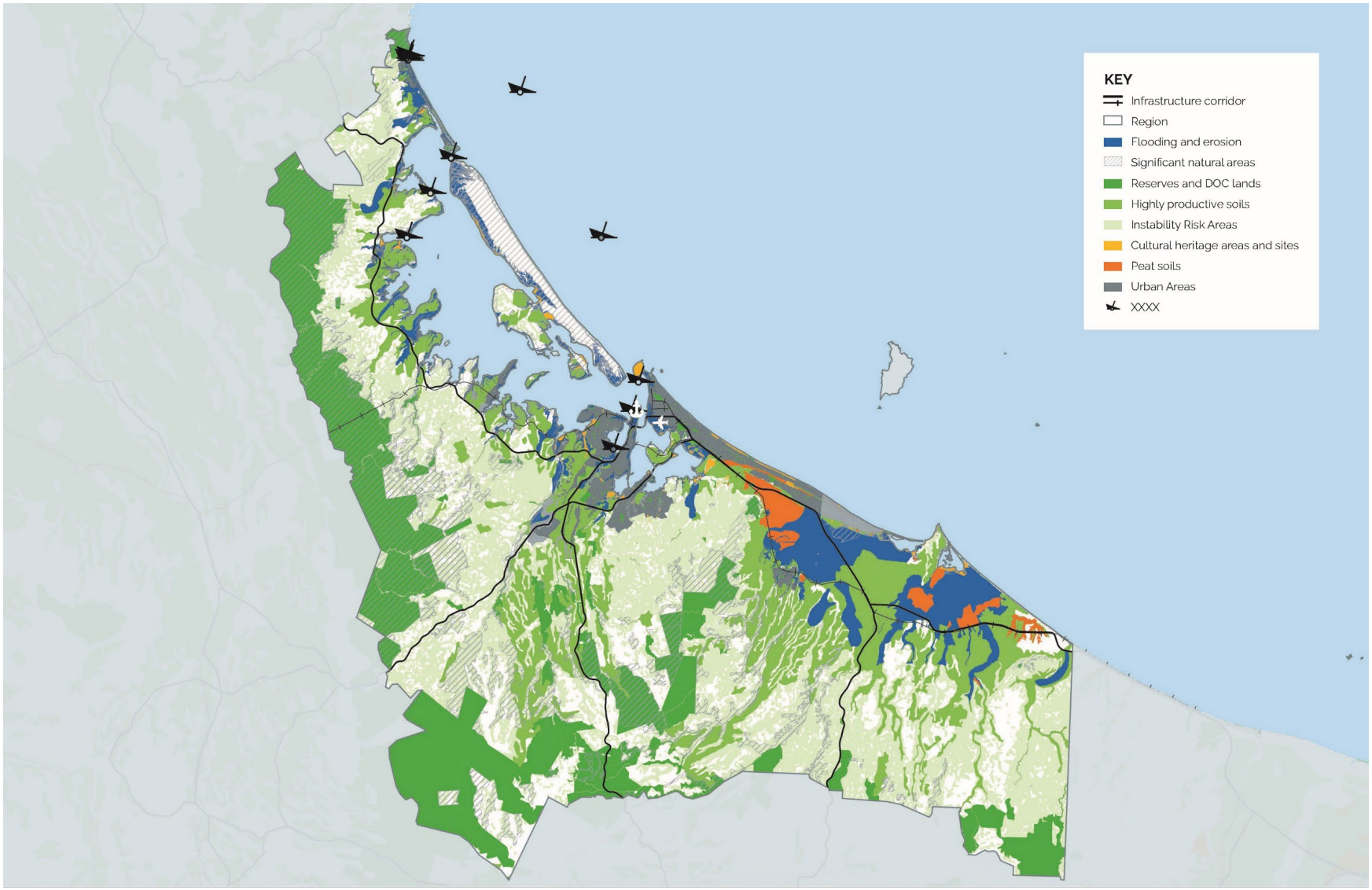


Figure 22. GIS wāhi toitū and wāhi toiora spatial layers for the western Bay of Plenty.

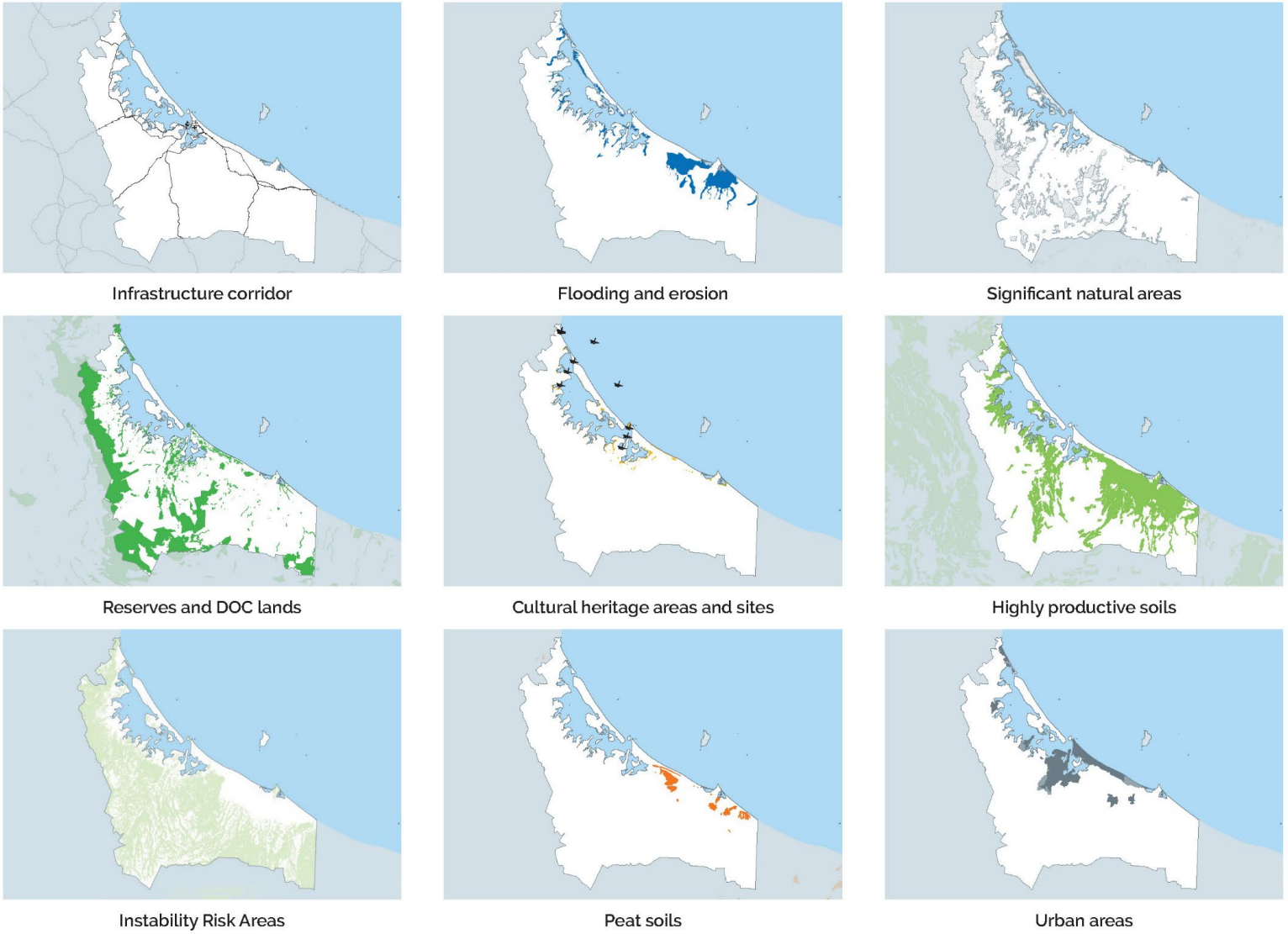


Table 4. Land use and constraints assessment of the shortlisted UFTI programmes.

Key observations	Commentary
NPS-UD compliance – enabling growth up and out and meeting bottom lines	Whatever settlement pattern is selected, it must comply with the existing National Policy Statement on Urban Development Capacity and the Proposed National Policy Statement on Urban Development, as well as other relevant National Policy Statements (existing and proposed). The Proposed NPS-UD has a strong focus on creating quality urban environments that allow people to provide for their wellbeing. It requires councils to provide development capacity and ensure growth is strategically planned. The Proposed NPS-UD aims to achieve competitive land markets by requiring cities to growth 'up' and 'out'. There is a balance required between intensification and greenfield areas to meet capacity requirements. The Proposed NPS-UD contains policies around enabling higher density development in areas close to employment, amenities, infrastructure, and demand. The NPS acknowledges that to meet growth requirements local authorities may need to provide for growth out, as well as up. Greenfield development is to be managed in the best way possible to deliver quality urban environments, while being responsive to development.
Intensification	Intensification of the existing Tauranga urban area is already planned to increase to at least 40 percent over the next 30 years, progressed in the following order of spatial priority: • Te Papa peninsula – a current project underway to develop an Indicative Business Case. Residential intensification is to be incentivised through a range of transformational interventions, including Plan Change 26, transport investments in public transport and active modes, social housing, and capital investments in community infrastructure and open space. The aspirational target is for Te Papa delivering about 4,000 houses in each of the next three decades. • Tauranga Central (Otūmoetai/Matua/Brookfield/Judea) • Coastal strip – noting there are unresolved natural hazard land use constraints in parts of the city.

Key observations	Commentary
	The assessment affirmed that this approach to delivering intensification remains appropriate and should be reflected in the optimal programme. Where possible, the partners will seek to utilise the new fast track RMA planning processes.
Planned Greenfield Growth Areas	Planned greenfield growth areas are to be progressed through Structure Plans and RMA plan change processes. The assessment favoured options that promoted higher than currently delivered residential densities to support effective high frequency public transport, provide a wider range of housing choice and support greater self-containment and use of active modes. The current large-scale planned areas for greenfield development in the next 30 years are necessary to help meet statutory NPS-UD capacity requirements and include Omokoroa Stage 3, Tauriko West, Te Tumu and Keenan Road. Smaller areas of additional capacity can also be provided in towns such as Te Puke and Katikati without necessitating additional infrastructure investment. Where possible, the partners will seek to use the new fast-track RMA planning processes.
Longer term greenfield growth areas for 30+ years and a 400,000-population scenario	There is a need to thoroughly investigate longer term greenfield growth areas to the east, west and north of Tauranga city that will be required following build-out of the planned areas. One of these (most likely the east) may need to be fast-tracked if one or more of the planned growth areas is not available or delayed unduly. A key assumption is that intensification of the existing urban areas continues at a minimum of 40 percent of supply each year for many years beyond 2050. If intensification rates rise above 40 percent in the next 30 years, this will then delay the need for further greenfield capacity. This will need to be monitored over time. The Eastern Corridor is proposed to be the first location to be considered, to ensure there is balanced growth across east and west. Note that the sequencing of master planning for the western and northern corridors is not yet resolved.
New greenfield urban centre in the eastern corridor near Rangiuru Business Park	A new eastern centre will likely be required in the 30+ year timeframe, especially if the sub-region remains on track to reach a 400,000 population. A new urban centre is preferred (not contiguous to Te Puke urban limits)

Key observations	Commentary
	and will include additional industrial land beyond the existing Rangiuru Business Park (RBP) zoning. It is likely to be located adjoining the RBP, near the TEL-SH33 intersection, and close to the rail line. The timeframe for an additional greenfield centre being needed is influenced by: • availability of Te Tumu capacity in the medium or long term • uptake of intensification and all existing zoned and planned capacity • the need to balance urban growth between the western and eastern corridors This centre should be made self-sufficient with most transport movements able to be contained within the wider Eastern Corridor. While it is acknowledged that Te Papa Peninsula and Mount Maunganui will still contain the CBD, areas of highest employment density, and the widest range of metro facilities and amenities, not everyone from a new centre should need to travel there for work, entertainment or recreation. This new eastern centre must be master planned to provide sufficient services, amenities, and employment, to contain movements to manage the peak travel across the harbour and enable development at density, scale, and pace. Given the large scale of growth that is anticipated in the Eastern Corridor beyond the agreed settlement pattern, it is important to ensure that planning for this growth is aligned with the planning for the transport corridors (especially the public transport corridors) back into the Central Corridor across the harbour. There is a chance that the scale of growth in the east may need to be reconsidered if the right transport connections, in particular public transport connections prove not to be achievable in the future.
An additional east-west strategic transport link across the harbour for public transport and active modes is necessary within the first 30 years	In order to provide a high frequency public transport connection for residents in the Eastern Corridor, additional dedicated lane capacity for public transport and active modes crossing the harbour is likely to be necessary to support the current settlement pattern and continue to support freight access. One option would be to repurpose the existing Matapihi rail bridge. KiwiRail advise that the existing 1920s rail bridge replacement across harbour is due in 10–15 years. Their estimated cost at 2020 values is $80–100 million. This option, along with other alternative crossing points, needs to be explored further—especially with tangata

Key observations	Commentary
	whenua, given the aspirations of landowners in Matapihi and the potential consequences of another crossing for Tauranga Moana. If this additional dedicated public transport and active mode capacity is not provided, the issues become even more significant if an eastern centre is developed. If a solution is not found, there are likely to be challenges with conflicting mode priorities and high traffic volumes, limiting the quality of levels of service that may be able to be provided for buses on these alternative routes and potentially affecting mode shift potential to public transport. This is especially the case for SH2 Hewletts Rd and, to a lesser extent, for SH29A and Turret Rd–15th Ave.
A new eastern settlement would require connections to Wairakei/Te Tumu	Options that exist to better connect the various communities in the east face a range of issues associated with: • flood management exacerbated by climate change and sea level rise • Kaituna River Document objectives and desired outcomes • Tangata whenua interests (at least one current iwi management plan expressly states that there should not be any additional vehicle bridge crossings of the Kaituna River) • extremely poor ground conditions with susceptibility to liquefaction • high cost of engineering solutions • purchase of private properties and the designation process. Further investigation of options is required as these challenges may be insurmountable, and reliance may have to be placed on other options e.g., upgrading Te Puke Highway and Bell Rd to better connect Te Puke to Wairakei/Te Tumu.
Thresholds for if/when transition to using passenger rail	Whilst the rail enabled growth option is not supported by the assessment due to issues such as the time required to achieve adequate dwelling densities and job locations to support rail public transport in the first thirty years, the option of using rail for public transport in the longer term is attractive given the potential to

Key observations	Commentary
	provide another transport option for those living in the east. This being the case, the assessment suggests we futureproof our planning now with respect to location of potential bus park and ride and PT hubs on the Apata–Paengaroa Corridor to support future mode shift to rail, if/when it occurs.
Sequencing of master planning for Western and Northern Corridors as urban growth areas for a 30+year timeframe and 400,000 sub-regional population	Our projected allocation of residential and business land capacity shows that for a scenario of 400,000 population, we are likely to need further capacity in the Northern, Western, and Eastern corridors, beyond the planned areas. The merits of substantial greenfield expansion in each of the three Corridors are complex in terms of land use and transport integration and there is some uncertainty around the outcomes that would be realised from both an urban form and transport perspective. For various reasons, it is agreed that a new centre in the Eastern Corridor will be master planned first, however the sequence of the northern and western corridors is more challenging to resolve. Understanding the trade-offs between land use and transport outcomes will be important and will need to be considered as part of the master planning of both areas. Some considerations for the Northern and Western Corridors are set out below: **Northern Corridor expansion between Omokoroa and Bethlehem (Te Puna peninsula and Plummers Point)** The Northern Corridor has substantial committed transport system investment in the proposed Tauranga Northern Link, which should be fully optimised. Also, the rail corridor strategically passes through this area and it provides for a balanced urban form either side of the Central Corridor and harbour crossings. However, the land use challenges to consider include: • cultural heritage • sensitive coastal environment • many small fragmented landholdings • multiple-owned Māori land • water and wastewater servicing

Key observations	Commentary
	• cultural implications similar to those at the Matapihi Peninsula. **<u>Western Corridor expansion beyond RPS urban limits - including industrial land beyond the Tauriko Business Estate extension (TBE) and consideration of Merrick/Joyce and Belk Rd</u>** Tauriko West, TBE extension (lower Belk Rd) and Keenan Road areas are planned growth areas for the next 30 years, with Three Waters and transport infrastructure planning underway. While master planning of Merrick/Joyce Roads and Belk Road areas is some time away, consideration of these areas will need to be made through structure planning for Three Waters and wider transport planning for Tauriko West, TBE extension and Keenan Road growth areas to ensure that the interventions do not compromise potential growth options. This will be done through considering connectivity of these potential growth areas at a conceptual level, noting some additional development capacity in the Western Corridor beyond the agreed growth areas may be required within the next 50 years. The Western Corridor may have some challenges from a transport system perspective given its position on the key inter-regional freight corridor to the Port. Our overall ability to manage competing demands on this Corridor over time still needs to be tested. Balancing these demands will be important to ensure provision of access to residential and business growth areas, while maintaining efficient freight access to the Port. Investment is currently being planned through the Tauriko detailed business case. On the positive side, in terms of transport and land use integration, the Western Corridor will benefit from investment in public transport infrastructure and priority in the Central Corridor down Cameron Rd which can be extended into the Western Corridor. It has the advantage of multiple east/west and north/south connections, including SH29, SH36, Cambridge Rd, Pyes Pa Rd/Cameron Road, proposed Western Corridor Ring Road, Oropi Rd/Fraser St and SH29A enabling resilience and allocation of different functions for different corridors. The large areas of existing and planned employment land that are establishing in the Western Corridor (particularly logistics and Port-related businesses) align with strategy by Waka Kotahi to promote SH1/29 as the key Upper North Island freight route into the Bay of Plenty. There is a chance that the scale of growth in the western corridor may need to be reconsidered if the right transport connections prove not to be achievable in the future. Hence, it is recommended that part of the

Key observations	Commentary
	UFTI implementation plan includes a strategic assessment of these Western and Northern Corridors using a MCA approach to assess these issues, in particular from a quantitative perspective, and ensure we have thoroughly tested the capability of each corridor. This should occur after current processes and projects underway are completed: • Tauriko DBC • Western Corridor water and wastewater studies • Western Bay Transport System Plan • Tauranga Northern Link and additional capacity between Te Puna and Omokoroa Road (New Zealand Upgrade Programme) • Revocation process for the current SH2 North alignment. SmartGrowth will be in a better-informed position to consider the merits of these two Corridors once these matters are progressed over the next 5–10 years.

Stakeholder feedback on the shortlisted programmes

The primary purpose of the UFTI Interim Report was to enable stakeholders the opportunity to provide feedback on the shortlisted programmes.

A summary of stakeholder comments received has been prepared, along with responses from the UFTI team, to track how those comments influenced thinking about the final and optimal UFTI programme.[22]

The commentaries, from both written comments and from the stakeholder workshop participants, were remarkably consistent and included:

1. A general preference for future urban form and transport system built around a high frequency public transport network and higher density communities, particularly those programmes that emphasised intensification within the exiting urban footprint

[22] The summary report of the stakeholder feedback received, and the UFTI project team responses is available on the UFTI website. See www.ufti.org.

2. The importance of considering social equity, housing and transport affordability and community wellbeing when thinking about transport and urban form (this feedback came from both business and social NGOs)
3. Support for the idea of futureproofing to protect the option of using rail for passenger transport in the future as populations grow
4. The importance of providing good amenity in urban environments, particularly where dwelling density is high
5. The need to encourage both living and job activities in the central business district along with high quality and attractive public space
6. Consideration of the four wellbeings (Social, Cultural, Environmental, and Economic) and particularly elements related to environmental sustainability
7. The importance of providing for seasonal workers
8. Understanding the function of places (e.g., the importance of rural communities and services)
9. The need for a balanced investment programme that addresses all parts of the transport system

Stakeholders favoured programmes that delivered a denser urban form and enabled greater movement of people by public transport and walk and cycling. These themes have been considered in the development of the final UFTI programme recommended to SmartGrowth.

Summary of the shortlisted programme analysis

The analyses summarised above feeds into a refinement of the multi criteria assessment produced for the Interim Report. Some key aspects to be reflected in the refinement to create the Connected Centres programme are set out for each of the UFTI Benefits (which are reflected by the investment objectives in the MCA).

UFTI benefit	Summary of the shortlisted programme analysis
Movement	• More dispersed and less self-contained settlement patterns will result in an increase in vehicle kilometres travelled, transport emissions, safety risk and congestion at peak times. It will also reduce the opportunity to walk and bike given the need to travel across the city for work and key services. • With a more dispersed, less dense settlement pattern, infrastructure costs are greater to attempt to maintain an uncongested network.

UFTI benefit	Summary of the shortlisted programme analysis
	• Access can be managed through provision of high frequency public transport services along key corridors and achieving higher housing densities in greenfield areas, which are well-connected and create as much self-containment as possible within communities (i.e. reducing the need for people to travel outside their suburb for work or essential services) • Use of the rail corridor for public transport is feasible with investment but requires higher dwelling densities than will be achievable in the short term, and jobs to be located along the rail corridor. In the longer term passenger rail may be a suitable option, particularly if an eastern centre is developed.
Housing	• Housing choice and affordability cannot be addressed by providing land supply and greenfield development sites alone. Interventions to increase productivity and therefore income are also necessary. • Enabling planning provisions and active intervention by all parties will be required to affect housing affordability and choice. • Increasing average densities and achieving intensification along high frequency public transport corridors will help increase housing and transport choice—potentially reducing some costs of living, through lower transport costs.
Prosperity	• Freight efficiency is best served by removing conflicts between inter-regional freight traffic and local commuter traffic—"the right traffic on the right roads at the right time". • Even with conflict between commuter traffic and inter-regional freight removed through interventions such as public transport prioritisation, the increase in transport demand from growth will mean that delays will remain and access to the Port of Tauranga cannot be maintained in an affordable way without significant modal shift. • Programme with higher housing densities and more self-containment tend to generate greater agglomeration benefits and reduce transport costs—suggesting opportunities to increase prosperity through economic development strategies that attract higher wage jobs into the region, particularly focussed on the CBD and centres accessible by high frequency public transport.

UFTI benefit	Summary of the shortlisted programme analysis
Environment	• Because all programmes assume population growth, and therefore increased vehicle kilometres travelled, it is not possible to reduce transport emissions to net zero by 2050 without considerable change in the vehicle fleet to decarbonised fuels (electric, hydrogen vehicles etc) and other offsetting activities. • The options with higher densities, particularly at nodes and along high frequency public transport corridors achieve the smallest increase in CO_2 emissions due to reduced vehicle kilometres travelled, more use of public transport and active modes. • Due to environmental constraints (topography, high productivity soils, hazards, cultural and spiritual concerns etc.), the population allocations to growth areas in the UFTI Interim Report options cannot be delivered.

These assessment processes lead to a conclusion that while the philosophy behind the Connected Urban Villages is sound, and the programme itself performed better than other options across the different assessment processes used, the programme itself cannot be completely delivered in its original form. The constraints mapping tells us that future development potential at scale is limited to the Eastern and Western corridors—and if necessary, the Northern Corridor—but only with considerable care and potentially some loss of productive soils.

Balancing these factors, we have concluded an optimal programme combining the Connected Urban Villages and the Two Urban Centres programmes offered:

- Consistency with the benefits of increasing housing density, local movement (often referred to as self-containment), and moving via a multimodal transportation system as set out in the Connected Urban Villages programme; and
- The feasibility of the land use pattern included in the Two Urban Centres programme which best followed the high level constraints and planning assessment with growth in the Eastern and Western Corridors.

The Connected Centres programmes combines the principles of these two programmes to develop an optimal and integrated land use and transport programme to be delivered over the next 50 years and beyond.

Part 3: Overview of the Connected Centres programme

Introduction

A final and optimal programme — 'Connected Centres'— has been developed based on the analysis and knowledge gained from testing the shortlisted UFTI programmes. A critical element in the analysis was the need to factor in several land use constraints that arose from the more detailed assessment, particularly of the known constraints, including the wāhi toitū and the implications this has for where new growth areas can be located.

This more detailed land use and constraints assessment suggests most of the potentially developable land available at scale to support growth within the sub-region requires a trade-off in terms of potential constraints. There is limited available land within the sub-region where a trade-off is not required. The constraints requiring consideration are usually in terms of cultural significance, environmental significance (particularly with the harbour, water quality, and/or emissions), productive lands (for horticulture and agriculture etc.), known and potential hazards, and/or topography.

The constraints means we need to carefully consider where we locate future new growth centres and balance the need to maximise space with the need to enable and support healthy and liveable communities.

The analysis of the shortlisted programmes shows where people live, and the density of the urban form, are the two most critical determinants to achieving the UFTI benefits and for a successful multimodal transportation system. If we locate growth out on the sub-region's fringes, enabling good transport choice and access becomes more challenging, complex, and costly with significantly less transport benefits derived for the community. However, intensifying existing areas and restricting new growth areas on the outskirts affects housing affordability and community wellbeing.

The Connected Centres programme tries to get the best and optimal balance between the intensification of existing urban and new growth areas ('up and out' development areas), which optimise existing services and infrastructure provision, along with the design of a future transport system that enables the effective and relatively efficient movement of people and goods. Getting the balance right between up and out development is necessary to meet National Planning Statement requirements and create competitive job and land markets.

Designing the Connected Centres programme

In developing the Connected Centres programme, the SmartGrowth Partners started with a set of key design concepts. These concepts include the following:[23]

1. In each greenfield growth area, we are targeting 30 dwellings per hectare average but recognise it could take 10 or more years to achieve this level of density and/or deliver frequent public transport services.
2. Assuming higher densities around public transport and community centres.
3. Where we are achieving greater densities, they are supported by good multimodal links (nodes and hubs)
4. Trying to create self-contained communities with improved accessibility, and trip containment within corridors where dwellings are allocated in relation to jobs, amenities, services.
5. Assuming regional public amenities are distributed on both sides of the Harbour.
6. Due to its special characteristics, no development has been assumed for Matapihi. However, given its strategic location, more intensive development would be appropriate if and when it has the required support from landowners.
7. Community concerns about the Crown-owned land at Greerton and the potential for redevelopment for intensified housing and open space is acknowledged. Providing open spaces and housing development of the Crown-owned land at Greerton is included.
8. There is a preference for delivering new centres and intensification in the central, eastern, and western corridors over developing the northern corridor further, although in the long-term, development in Te Puna/Plummers Point is planned for.

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[23] Supporting the key design concepts and strategic transport journeys are a set of base assumptions that have been incorporated:

1. The strategic walking and cycling network for the western Bay of Plenty sub-region is built. This is shown as planned or envisioned on the Connected Centres programme map.
2. The Tauranga Northern Link and extension to Ōmokoroa with managed lanes is built and shown as planned.
3. Improvements to the Ōmokoroa intersection, and Papamoa East and Rangiuru interchanges are designed and delivered in a way to support public transport access.
4. The Tauriko Long-Term Connections multimodal improvements (local roading, public transport, walking and cycling, and state highway) as per the yet to be finalised Detailed Business Case are constructed to support the current agreed Tauriko industrial and residential development as per the existing SmartGrowth agreed settlement pattern.
5. The Te Papa Peninsula intensification and the proposed Te Papa multimodal transport system improvements will be incorporated into the preferred UFTI programme.
6. The western Bay of Plenty Public Transport Blueprint (services and infrastructure) is implemented to support the multimodal transport system.
7. Both KiwiRail and Waka Kotahi will continue to invest in the natural hazard resilience of their current transport networks, irrespective of UFTI settlement pattern.
8. Key strategic assets such as the Port of Tauranga, the Tauranga Airport, and the Tauranga Hospital will not move within the planned UFTI timeframes.

In addition to these assumptions, the optimal programme does include an additional harbour crossing for public transport including bus and walking and cycling, and potentially future passenger rail connections. For illustrative purposes only, the additional harbour crossing is shown in the location of the current Matapihi Rail Bridge. The location and feasibility of an additional multimodal harbour crossing will be subject to future investigation and could be in a location anywhere within the vicinity of the SH2 Harbour Bridge and the Maungatapu Causeway.

9. As part of the new growth centres, industrial land will be planned for in the western and eastern corridors, and in the northern corridor for when this new growth centre is brought onboard.
10. The aim is to intensify current urban areas across the board and along public transport corridors to 30-50 dwellings per ha around identified nodes and centres.
11. Assuming Regional Policy Statement hazard provisions can be resolved and there are engineering solutions that are affordable for liquefaction risk in some locations.
12. Enabling the right trips and modes to use the right corridors as per the UFTI strategic journey functions.
13. The SmartGrowth partners are committed to achieving the New Zealand government's climate change targets for transport emissions.

In addition to these key design concepts, the function of several key strategic transport journeys has been considered and documented. Pinpointing the current and future functions of the key strategic journeys is important for the Connected Centres programme, as it identifies the primary purpose and the proposed mode prioritisation, and influences the transport interventions required to support or enable the future function.

Based on the strategic transport journeys, a number of transport interventions have been included within the Connected Centres programme to support future growth and intensification areas and enable the function to deliver a multimodal transport system that reduces, within reason, the conflict between the movement of people and goods.

By identifying the key current and future transport journeys and functions to support the final UFTI programme, increases the planning certainty necessary for all the SmartGrowth Partners about the purpose and function of the future transport system.

About the Connected Centres programme

Summary

The Connected Centres programme is a settlement pattern that contributes to more affordable housing, and more competitive land and job markets through up and out future development. The supporting transport improvements will enable greater access, increased transport choice, and improve safety, while also maintaining important freight access, particularly to the Port of Tauranga.

A multimodal transport system is planned to ensure existing and future communities are connected by frequent public transport services along prioritised public transport corridors. These corridors are necessary to ensure public transport journeys and routes are reliable and provide excellent access to the many social and economic opportunities across the sub-region. Enabling more people to move via public transport will increase freight access, especially in off-peak periods.

Within the existing urban areas of the sub-region, high quality intensification is enabled, supported by high-quality urban recreational amenities such as pocket parks and spaces. The intensification is concentrated around key transport hub and the prioritised public transport corridors and route allowing allow people to have choice and move throughout the sub-region.

New communities are developed in the East, West, and North of the sub-region. These communities have higher densities, excellent public transport options, and are based around high quality urban amenity to support our live, learn, work, and play lifestyles.

Supplementing access, a network of safe and accessible cycling, walking, personal mobility routes are enabled to support connectivity to local shops, schools, and other services, as well as accessing neighbouring communities. The range of transport choice and the opportunity to live close to where people work will help reduce transport carbon emissions over time. The programme identifies and seeks to protect the critical transport and blue-green corridors required over the long term.

The settlement pattern and programme have identified spatial constraints and hazards and seek to avoid or moderate any future development in relation to these. The new growth areas for the 30 years plus are indicative and their actual spatial intent will be tested further before inclusion into regional and local planning statutory frameworks.

The look and feel of each corridor and centre the mix of interventions required to develop these places will be different, as they will need to reflect the distinct characteristics (heritage, amenity, etc.) and function of those places and the different communities who live in them.

The Connected Centres programme is built around four high frequency and dedicated public transport corridors, linking key centres for work, learning and play. Along these corridors and at these centres, the housing densities will be higher than has previously been seen in the western

Bay of Plenty. These centres occur in both existing urban and new greenfield locations along our key passenger transport journeys and routes which allow communities to grow both up and out, provide greater transport choice, and over time, help transition to a low carbon system. With a renewed focus on partnership, the opportunities and decisions for tangata whenua to be involved in the future of the sub-region will be enhanced and the development of Māori and Treaty Settlement land, will continue to be retained by Māori.

The intensification within new and existing communities will be based around urban centres. The different types of dwellings around the centres are points of interest and enable most people to have easy access via a 15-minute walk or bike ride to the shops, community facilities, and recreational areas important for achieving the live, learn, work, and play vision of the sub-region. The frequent and reliable public transport services flow through the centres to provide access to jobs and education, as well as other social and economic opportunities within the larger centres. Via public transport, most people will be able to access everything they need within 30-45 minutes of travel. For those who choose to use their private vehicles (general traffic), especially at peak periods, these journeys will be less predictable. However, alternative transport choices are available for all.

Along these corridors we will see greater walking and cycling connectivity, high quality urban amenity, high frequency public transport services and supporting infrastructure, improved freight connections, and an increase in dwelling densities to an average of at least 30 dwellings/ha. The range of transport choice and the opportunity to live close to where people work and learn will help reduce transport movements and carbon emissions.

Supporting the urban centres along the transport routes are larger new centres in the Eastern, Western, Northern Corridors, along with the established centres in the CBD, the Mount, and along the Te Papa peninsula. Within the larger centres, and particularly when the future passenger rail will operate between Apata and Paengaroa, the public transport hubs enable a quick transition between road, ferry, and rail modes where applicable. These hubs are also likely to provide shared and flexible working spaces for small and medium-sized business and those that wish to co-locate, as well as providing a focal point for the local communities. Like the other urban centres, access via public transport and walking and cycling is easy, safe, and convenient which reduces reliance on private vehicles.

In the **Central Urban Corridor** (from The Tauriko Crossing to Mount Maunganui via Cameron Road) we will see the most significant transformation in the sub-region in the next thirty years, with a high frequency public transport system and higher densities (apartments, terraced housing, and duplexes) along the corridor, especially at areas such as around the Hospital and Greerton. At one end will be the employment and retail centre of Tauriko and The Crossing, and at the other end, a revitalised CBD with a mix of apartment living and city lifestyle, university buildings, and office space. The multimodal transport system will integrate with walking and cycling to enable safe access via personal mobility modes.

With the improved access to the CBD via the frequent public transport services, including the ferry, there are more mixed use commercial and residential buildings. Different opportunities for inner city living are provided to suit the needs of tertiary students, professionals, and retirees alike.

With the increased number of people living in the CBD and easy access to the harbour, green spaces, and other amenities, the CBD has vibrancy and is a destination for residents and visitors alike.

As an urban regeneration initiative, implementation of change in this urban corridor is complex, requiring strong leadership—in particular from central and local government and tangata whenua, as well as exceptional community engagement and place-making, a clear vision of success and a flexible adaptive management approach, while working in partnership with all sectors and partners.

Due to the complexity and interdependencies of projects within the Central Urban Corridor to achieve the intensification and mode shift, the related actions for this corridor are distinctly different from other priority growth centres. Delivering the changes will require active management by the SmartGrowth partners over a 30-year timeframe. The involvement and investment are more than would be expected in a new greenfield growth area where private developers take a stronger lead in delivery.

To be successful in delivering urban form and transport changes, it is likely a formal partnership arrangement will be required to drive delivery of the strategy in the Central Urban corridor. It is recognised that urban intensification does take time, but it needs to be part of the immediate delivery works to display the well designed and executed new inner-city housing developments. Early delivery of key inner-city development will create a momentum for central city living and further investment as well as having the biggest impact in achieving the urban form and transport outcomes outlined in UFTI and the SmartGrowth Joint Spatial Plan.

Work within the Central Urban Corridor has already commenced with the proposed intensification plan changes to the Tauranga City Plan, the Te Papa Spatial Plan and Indicative Business Case, the Cameron Road multimodal programme, and planning for the multimodal connections from the Tauranga Northern Link.

In the **Eastern Corridor** (Te Maunga/Baypark to Paengaroa), the planned town centre at Wairakei and development at Te Tumu will offer higher density dwelling and working opportunities including apartments, major recreational facilities, and employment both in Wairakei and also at Rangiuru. High frequency public transport services will be provided linking Wairakei/Te Tumu and the CBD and beyond, with dedicated public transport prioritisation to enable reliable public transport movements. Ultimately, these areas may be serviced in the future by a public transport connection using the rail corridor to link Te Puke, Rangiuru and the CBD, although that will be dependent on a number of factors including dwelling densities, job distribution, and demand.

With the steady pace of growth, spatial planning for the new centre in the Eastern Corridor is completed earlier to help ensure there are strong community and physical connections between the new eastern centre, Te Puke, Wairakei/Te Tumu, and the rest of the sub-region. The envisioned growth areas in the east are enabled in a way that carefully balances intensification and new developments. The new centre also recognises the substantial growth occurring in the kiwifruit and horticulture industry in the east and the need for supporting housing and industry.

To support the growing population on the eastern side of the harbour, planning and design for an additional multimodal harbour crossing takes place in time to enable tangata whenua to participate in the decision-making and for the local community to be involved.

In the **Western Corridor** (beyond the Takitimu Drive/SH36/29 intersection into the Kaimais and toward Rotorua) new residential developments at Tauriko West and Keenan Road will be built. Linking these communities and the Tauriko Business Estate to the rest of Tauranga are high frequency public transport services and supporting public transport infrastructure from The Tauriko Crossing to the CBD.

Housing densities in these suburbs will tend to be lower in the first ten years (20-25 dwellings per hectare) but will reach an average of 30 dwellings per hectare over time. These communities will be designed as walkable neighbourhoods, with low carbon footprints, and where people can live, work, learn and play. Additional growth areas in the west are developed to maximise the number of dwellings and deliver a transport system that encourages multimodal use and ensures freight access via SH29 and 36 is not compromised by private vehicle demand.

In the **Northern Corridor** (from Takitimu Drive/Bethlehem to Waihi) new development at Omokoroa will be at higher densities around the town centre to support a frequent public transport service along the Tauranga Northern Link and existing state highway, respectively. It is possible in the longer-term urbanisation may occur at Te Puna/Plummers Point. However, this is not planned to occur in the next 30 years. Likewise, the rail corridor may provide an alternative passenger transport connection from Apata (also servicing the northern area from Katikati to Waihi), to the CBD, and on to Rangiuru/Paengaroa in the longer term.

The sub-region's economic development strategy has been successful in building off the current foundations of the economy to support the urban form and transport developments. The success means incomes within the sub-region have increased as productivity has improved and more skilled labour is required to support the horticultural, technology, and logistics manufactures that are attracted to the Bay's coastal lifestyle, warm climes, and easy access to the global economy via the Port of Tauranga.

Most professional service jobs are concentrated in the current employment areas, but new opportunities have arisen with the development of the Rangiuru Business Park, and demand for further horticultural and aquamarine services. The freight corridors of SH29, Takitimu Drive, Hewletts Road, SH29A, and the Tauranga Eastern Link continue to provide access between the Port, the Eastern Bay of Plenty, and the Upper North Island. Some additional capacity via managed lanes are necessary to enable freight access. With some people choosing to use public transport or personal mobility, most freight journeys are predictable, particularly during the interpeak. Most bulk loads accessing the various logistic sites and Port go via rail which helps reduce the demand and pressure on the transport system.

With the increase in multimodal use and improved access to the urban centres, the need to provide the same quantum of carparking could reduce. Parking costs are targeted to help encourage people to use the personal mobility or public transport options available to them. For the commercial areas throughout the sub-region, an appropriate level of turnover is the focus of parking management policy and activities. Where public and private parking is provided, most will cater for micro-mobility devices as well as charging of electric vehicles and bikes.

The delivery of the programme does not explicitly address interventions on corridors beyond the Western Bay of Plenty but acknowledges that the envisioned settlement pattern will support enhanced linkages to other parts of the Bay of Plenty Region and the Hauraki Plains and Coromandel Peninsula for both freight and people. These linkages may support additional investments in transport logistics and infrastructure to the north of Omokoroa and toward Rotorua Whakatane and Kawerau. Growth along both the Southern and Eastern Corridors will result in changes to transport demand on SH5, SH30 and SH36 in particular as a consequence of greater connectivity and commuting between Rotorua, the Eastern Bay of Plenty and Tauranga. We would expect to see UFTI form part of the strategic context in support of interventions to assist with freight and people movement on those corridors.

Delivery of the Connected Centres programme is phased over time and subject to availability of funding. The planning changes necessary to enable higher densities within the existing areas is planned to take place quickly following UFTI and the completion of the Te Papa business case work. The delivery of multimodal options, public transport prioritisation starting with the CBD to Tauriko strategic journey along Cameron Road, along with the lead community infrastructure to support Te Papa intensification is expected to take place in the first decade. These journeys are supported with the development of walking and cycling routes throughout the sub-region. Other growth corridors connecting people from Omokoroa to Te Tumu, and Tauriko to the Mount follow, with planning, design, and delivery phases completed concurrently to maximise momentum.

Overall, while there will be some further detailed planning and design work to complete, maintaining the momentum built from UFTI via the inclusion of the delivery plan into the Council's Annual and Long-term Plans, and the Regional Land Transport Programme will be important.

How customers might experience the Connected Centres programme

Welcome to the western Bay of Plenty in the year 2070. We are known for our great lifestyle and many connected communities, each with a unique character.

The connected centres are focused around public transport hubs and a core of diverse retail shops, services, and offices often next to an urban plaza. Each community is a place where the buildings and spaces reflect our identify in unique ways, and residents and visitors value the different cultures and character present in the architecture and public spaces—especially in the CBD, which has developed around pedestrianised principles and taken advantage of the waterfront.

Housing choice is diverse. The CBD and Te Papa peninsula provide a diverse range of housing types. The CBD is a vibrant people-place with tall and low-rise apartments clustered around public transport stops, active streets, and local employment opportunities. Those in the city centre and peninsula enjoy great views and amenities afforded by the harbour. These are a draw card for residents to enjoy the plazas and parks

which dot the city spaces and waterfront. Other centres offer a sometimes quieter yet trendy city vibe and are known for a mix of low-rise apartments, townhouses, and semi-detached homes.

Streets are active places that welcome people to linger and watch urban community life unfold. A frequent bus service moves people easily between work, play, home, and school. We used to drive a lot more, and still do sometimes, but now, taking the bus or e-bike is often easier and quicker, and therefore a popular option. Urban communities have grown around Ōmokoroa, Matua/Otumoetai, Arataki, Pāpāmoa, Wairakei, and around Rangiuru and Paengaroa.

People can move freely within the busy urban spaces, and frequent buses move people to and between centres and the CBD, for work or school. in the busiest times of the day. Many people living outside of the CBD or the main urban centres use the many buses as part of their normal routines to go to home, work, or school. Getting around is easy for all ages and abilities.

Throughout the City, street trees, parks, and public gardens are part of the urban landscape, especially along the Te Papa and Otumoetai peninsulas, the CBD and in the urban centres. These features invite many birds, bees, and wildlife to share our greenspaces as they travel along the green belts connecting the Kaimai Ranges to the harbour and Waihi Beach to Pukehina/Maketu via the City, Matakana Island, and Mauao.

Tree-lined people-friendly streets and local parks are well used by families, dog walkers, and workers enjoying the sunshine. Outside of the urban centres there are a mix of lower density housing types such as detached homes and semi-detached, as well as small apartment complexes. These areas are well connected for bikes and walking to schools, parks, and access to and through the community.

Employment has changed. While horticulture, agriculture and logistics are still economic mainstays, we are home to a thriving start-up culture backed by a highly educated and creative workforce. Our diverse lifestyle, coastal setting, and family-focussed City draw people to invest their capital and energy here. Most of us can travel from home to work or school in 30-45 minutes or less. While we pay more for parking than we used to, it is there when we need it. Electric cars are popular, and it is easy to get your car charged when you need to.

Pāpāmoa East, Te Papa Peninsula, and Greerton down to Pyes Pa/Tauriko have also changed and grown. They are well served by a frequent and reliable public transport system which can zip past queued traffic, especially in the morning and afternoon peaks. Buses are the choice for commuters living here. Residents from as far as Paengaroa and Katikati regularly take the bus to work in the CBD or at the offices and shops situated along Cameron Road. Many also take the opposite commute and head to work in Tauriko, Te Tumu and Rangiuru, which host a wide range of employment types—from high value horticulture servicing facilities to specialist niche manufacturing and IT start ups. These areas have seen significant growth in the past 50 years. Seasonal workers have appropriate housing and safe transport choices when accessing their many locations of work across the sub-region, and visitors enjoy easy access to the many highlights the sub-region provides via public transport.

Mount Maunganui has continued to grow as a recreation area for the City and is a stunning setting for many cultural festivities. Lots of people still enjoy the vibrancy of the Mount, and it is the place to be seen on the weekend and best accessed via bus, e-bike, or ferry as it is so popular.

We have many places to play and explore in the sub-region, and we have the freedom to choose how we travel. While the sub-region has seen a great amount of growth in the past 50 years, the changes in the way we can use our City have kept up. New parks, schools, and open spaces have maintained and grown our lifestyle. We still enjoy the fantastic fishing, lovely walks and parks, amazing people, and gorgeous landscapes that brought us here in the first place.

People profiles

Aroha

I live in a student apartment building overlooking the harbour inlet, just behind the University in the CBD. It is a quick walk to my lectures on campus and my friends are always bouncing between The Strand and the Mount on the weekend. Tauranga has grown into a metropolitan City, and I am excited to start my career here. I start my internship with a leading local manufacturer next week and I can't wait!

Thomas and Frances

We live in a new townhouse development in Tauriko. Our kids attend Tauriko school and access their sport and after school activities within the local community. Thomas works at a new IT start-up company that has co-located into one of the new incubator shared office spaces popping up in the Tauriko business estate. It's just a quick trip on his e-bike from home to work via the cycleways. As an electrician, Frances uses the highway network to access her many client sites and supply companies. Although the roads are busy, she usually arrives on time as the travel times are reliable.

Mila

My family lives in Ōmokoroa in a side-by-side duplex, just a couple of blocks from the main urban centre and transport hub. I attend the new high school, which I can walk or bike to safely and easily through the many community shared paths. I can also visit my friends in other urban communities or the city centre through the highly frequent bus system which is safe and has free Wi-Fi.

Bill and Grace

We used to live rurally but when Grace retired, we moved into an apartment in Pāpāmoa for the lifestyle. Being able to take our e-bikes to the beach is a real plus, as are the cafés and retail available nearby at the Pāpāmoa Beach town centre. Our kids and grandkids are often taking turns staying in our spare bedroom on weekends when they visit from out of town. Between the beach, great parks, and restaurants this place has everything we want. If we want to go somewhere different, we can pop into the CBD on the bus or head up to the Mount too. We can spend a happy day in either place enjoying the parks and watching the people go by.

Figure 23. Overview of the Connected Centres programme for a 400,000 population scenario.

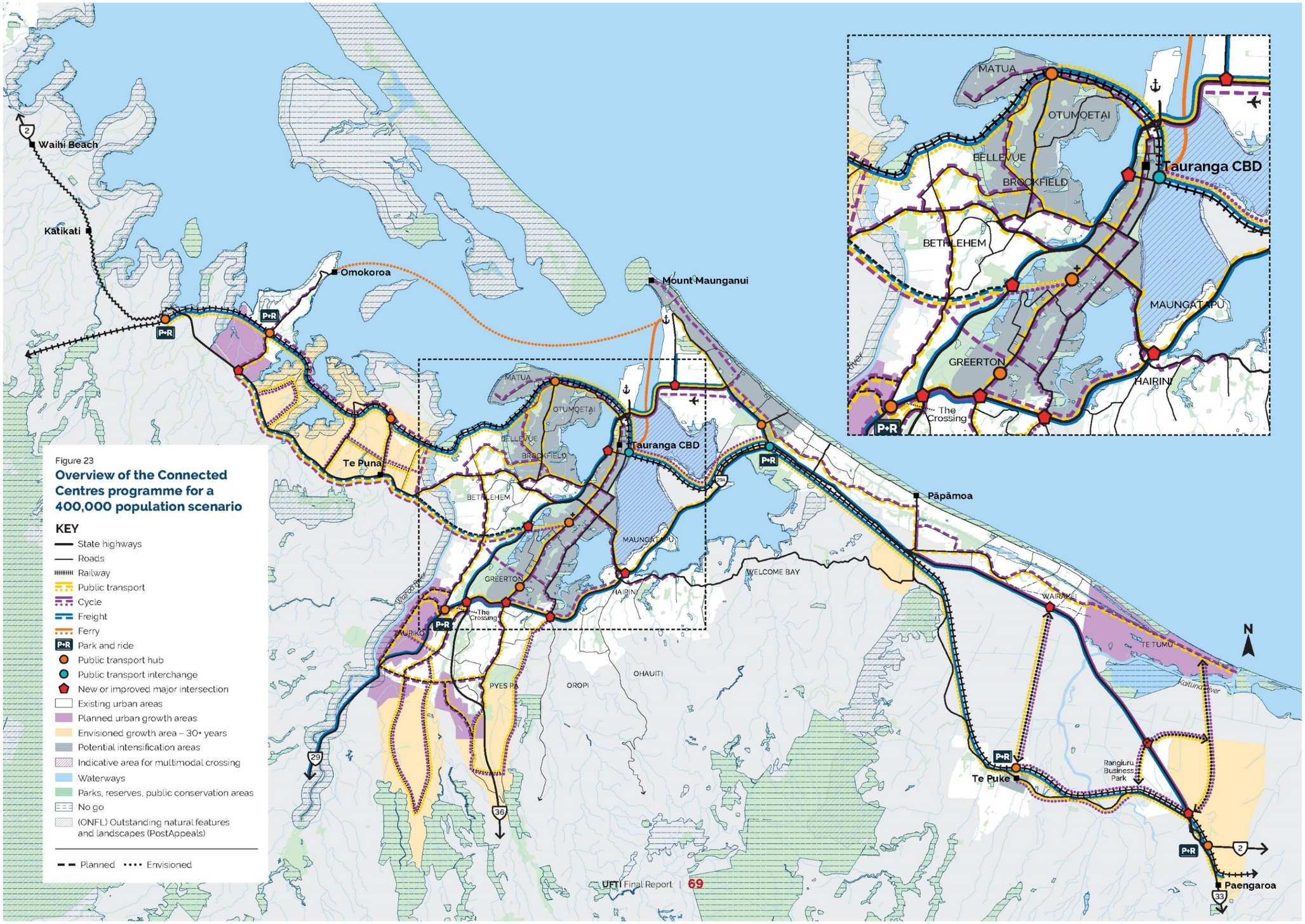
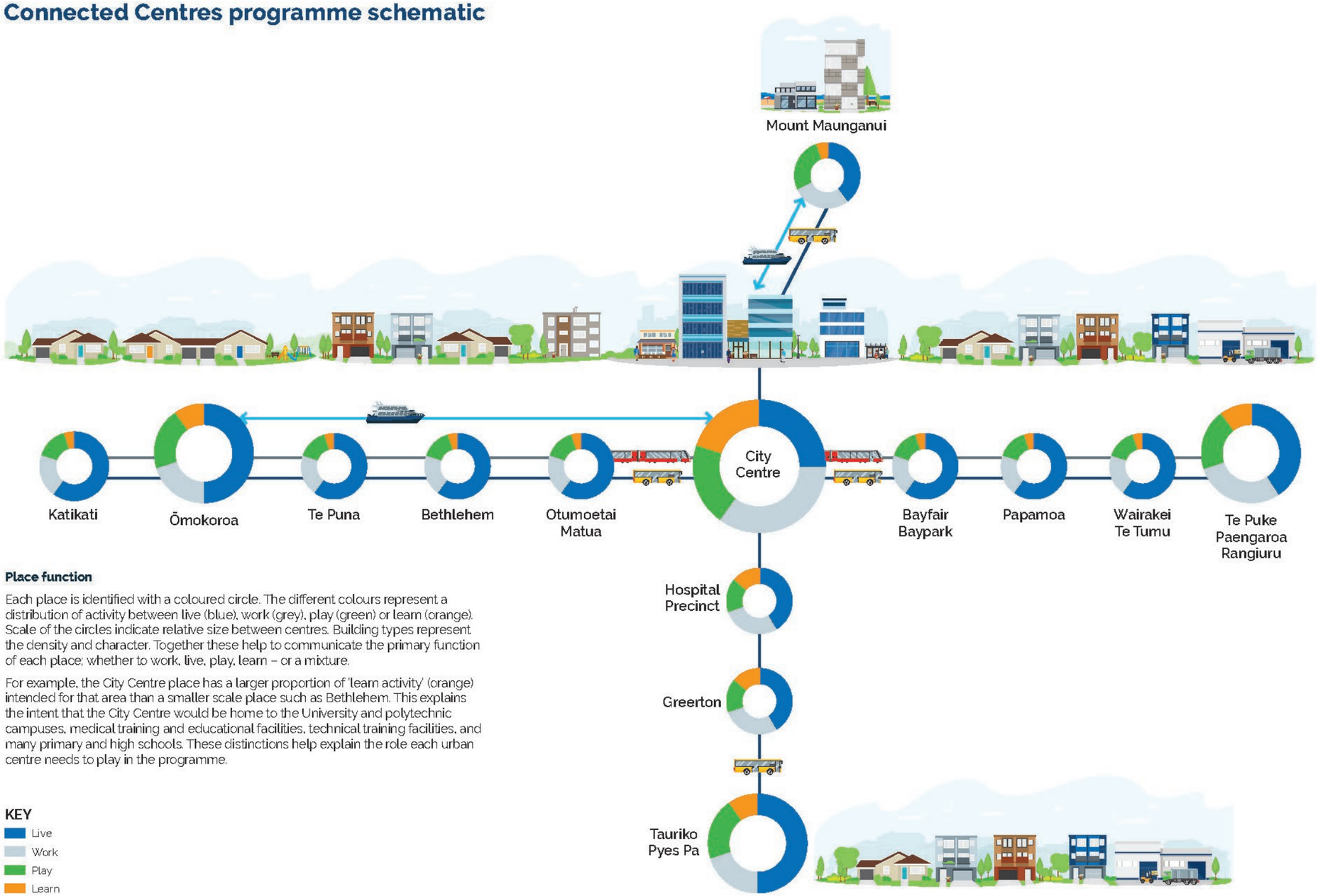


Figure 24.: Connected Centres programme schematic.

Figure 24

Connected Centres programme schematic



Place function

Each place is identified with a coloured circle. The different colours represent a distribution of activity between live (blue), work (grey), play (green) or learn (orange). Scale of the circles indicate relative size between centres. Building types represent the density and character. Together these help to communicate the primary function of each place; whether to work, live, play, learn – or a mixture.

For example, the City Centre place has a larger proportion of 'learn activity' (orange) intended for that area than a smaller scale place such as Bethlehem. This explains the intent that the City Centre would be home to the University and polytechnic campuses, medical training and educational facilities, technical training facilities, and many primary and high schools. These distinctions help explain the role each urban centre needs to play in the programme.

KEY

- Live
- Work
- Play
- Learn

Connected Centres programme supporting details

The land use aspects of the Connected Communities programme are based on:

- The agreed SmartGrowth settlement pattern for the next 30 years and further intensification and greenfield development beyond this time period.
- Existing urban areas will have increased intensification, particularly in Te Papa Peninsular, Otumoetai (and surrounding suburbs), and in Mount Maunganui and Arataki/Bayfair where possible.
- Development of the planned greenfield areas of Omokoroa, Tauriko West, Keenan Rd and Te Tumu over the next 30+ years.
- a new centre and community in the Eastern Corridor near Rangiuru Business Park and Paengaroa commences in the medium term (15-20 years).
- the extension of the Western Corridor, including extending into upper Belk, Merrick, and Joyce Roads in the long term (30+ years).
- development in the Northern Corridor in Te Puna and Plummers Point in the long term (30+ years).
- minor extensions to the existing Urban Limits to provide some short-term opportunities for growth.

Table 5 outlines the proposed dwelling allocations within each area and corridor within the next 30+ years. The table identifies large scale allocations within the next 30 years. The table identifies large scale allocations and does not preclude small numbers of additional houses either within other locations from being considered through future regional and district planning processes. Table 6 provides an envisioned scenario for the period beyond 30 years. It is important to acknowledge these are initial estimates only and more detailed investigations would be required to confirm the infrastructure requirements and development capacity in each of the growth areas.

Table 5. Proposed dwelling allocations for 30 years to support the Connected Centres Programme.

Areas	Dwelling allocation 2020-2050	Notes
Operative zoned land (undeveloped greenfield) across the sub-region	10,000	
Intensification of existing developed urban land	10,800	Primarily focused on intensification in Te Papa followed by Otumoetai (and surrounding suburbs) and the coast strip from Mount Maunganui to Bayfair/Arataki.
Western Bay District Rural lifestyle	1,800	
Te Tumu	5,700	Still has capacity remaining at 30 years
Tauriko West	3,000	Estimate of full build-out capacity with 30 years
Keenan Road	1,500	Still has capacity remaining at 30 years
Omokoroa	1,800	Estimate of full build-out capacity within 30 years
Katikati	550	Estimate of full build-out capacity within 30 years
Te Puke	250	Estimate of full build-out capacity within 30 years
Eastern corridor new settlement	800	Stage 1 of master planned new Eastern urban centre in Rangiuru/Paengaroa area
TOTAL	**35,400**	

Table 6. Proposed dwelling allocations to support the Connected Centres programme post 30 years.

Corridor/area (post 30 years)	Dwellings	Comments
Intensification	22,000–24,000	Te Papa, Otumoetai (and surround suburbs and Mount Maunganui – Arataki/Bayfair)
Eastern	18,000–20,000	Eastern—Final stages of Te Tumu, new township and community in Rangiuru/Paengaroa area
West/South (Upper Belk, Keenan, Joyce)	8,000–10,000	Upper Belk, Merrick, Joyce, and final stages of Keenan Rd
Papakāinga development across the sub-region	1,000–2,000	
Northern	5,000–8,000	Te Puna/Plummers Point
Total dwellings required	**54,000–64,000**	

In designing the Connected Centres, further areas that could potentially support development were also identified. These areas could be explored further as circumstances change. The dwelling allocation from these opportunities for the Connected Centres Programme is shown in Table 7. The dwelling allocations in bold text are the allocations included in the programme, and the non-bold text in brackets highlights the potential capacity that could be achieve if development were to take place.

Table 7. Potential additional development opportunities within the sub-region.

Corridor/area (post 30 years)	Dwellings	Commentary
Matapihi	**50** (5,000)	The area within Matapihi could be urbanised but would have to be Iwi/hapū led. If urbanisation were to occur there would be excellent transport outcomes due to central location. However, only an allowance for further Papakāinga has been assumed.
Pāpamoa Hills (Domain Road Interchange to Mangatawa)	**1,000** (5,000)	Multiply owned land but logical location for residential (or industrial) development. 1,000 dwellings allocated to Domain Rd South area
Crown owned land at Greerton	**1,000** (5,000)	Complex and partnerships required
1990/ 2000s Greenfield area	**0** (10,000)	Limited infill development along older established coastal strip at Papamoa and no redevelopment/intensification assumed. Most developments subject to covenants precluding further subdivision. Cul de sac-based transport system causes connectivity issues.
Welcome Bay/ Ohauiti	**0** (1,000)	Limited growth could occur (approx. 1,000 dwellings). Large scale growth limited due to infrastructure constraints and complex land ownership.
Bruce Rd, Domain Rd, and Tara Rd	**0** (5,000+)	Ground conditions (peat land), low-lying, flooding, etc.

Affordable and social housing actions included in the Connected Centres programme

Simply providing capacity for housing as per the tables above will not be enough to address the housing affordability challenge faced by our sub-region. While substantial work has been undertaken to improve land and housing supply to the market, there are many demographic and external economic factors that cannot be controlled at a local level and which influence affordability and deliverability. More active intervention by both local and central government and enhanced partnerships between the public and private sector will be essential if the challenge is to be met.[24]

The affordable and social housing package[25] has been developed through research of comparable jurisdictions and with input from Smart Growth and industry partners. The programme has been developed concurrently as the assessment of the UFTI shortlisted programme took place. A workshop was held on 19 February 2020 with representatives from SmartGrowth Partners, Kāinga Ora, and Ministry of Housing and Urban development (MHUD) to develop a preliminary programme of affordable and social housing interventions for UFTI. The outcomes of the workshop resulted in a draft affordable and social housing programme. The draft programme was then circulated to SmartGrowth Partners, MHUD, Kāinga Ora, and to industry stakeholders through the Smart Growth Housing Affordability Forum for further comment. The SmartGrowth Partners reviewed the final housing programme and as the result, the housing programme focused on three key activities, as outlined below:

Priority A: Portfolio management of affordable and social housing

Take a portfolio management approach—across the public and private sectors—to foster greater collaboration and strategic decisions. This can facilitate an integrated approach to the investigation and delivery of urban regeneration, leading to the delivery of social and/or affordable housing via the market.

Priority B: Project delivery of affordable housing (firstly in Te Papa Peninsula)

The intent is to capitalise opportunities for social and affordable housing (identified through the portfolio management approach in Priority A) through the most effective project structure. A short-term focus on Te Papa Peninsula can support benefits of intensifying in an area of improving accessibility close to amenities and employment opportunities. Te Puke may also present short-term opportunities. A broader focus can take

[24] Housing affordability includes both the capital cost of housing, including housing typology and choice and the household cost associated with the location, including transport costs which are a significant proportion of normal household costs, just below food. Consequentially affordability and accessibility are closely linked.
[25] Affordable housing refers to assisted rental homes, assisted home ownership products (such as rent-to-buy, shared-equity and co-housing) and low-cost homes on the open market. Social housing means homes provided by central and local government or not-for-profit organisations, for people most in need.

place in the medium to long term, including emphasis on catalyst projects in commercial centres and close to public transport nodes and corridors. Strong and collaborative partnerships to invest and deliver affordable housing are necessary.

Priority C: Sub-regional social & affordable housing action plan

This action proposes to develop a collaborative sub-regional housing action plan to set out actions and responsibilities between partners. A detailed action plan can support Priorities A and B with a focus towards addressing regulatory and structural barriers to social and affordable housing.

These priorities along with more detailed interventions have been included in the final and optimal UFTI programme as a separate package of key moves in the delivery of the UFTI programme outlined in Part 4 of this report. The Social and affordable housing toolkit report is available on the UFTI report.[26]

Implementation principles for delivering the Connected Centres programme

The implementation principles focus on elements of urban design and urban planning of critical importance to achieve the benefits of the Connected Centres programme. They are high-level and aspirational outcome statements to guide the implementation of the optimal UFTI programme through the upcoming SmartGrowth joint spatial plan. Table 8 provides a summary of the implementation principles, with the detail included in Part 5. The principles do not apply to the rural environment unless explicitly stated.

Some UFTI implementation principles may conflict, such as the need to enable greenfield development on soils which are highly productive because there are limited other areas to develop. During planning decision making processes, a deliberate balancing of trade-offs will be needed from time to time. The collaborative methods underpinning the way SmartGrowth works are expected to sufficiently manage the balancing of these principles by the partners.

In developing the principles, it is noted that while Three Waters infrastructure is an important consideration in spatial planning, it was not part of UFTI's scope. It is therefore expected that the new joint spatial plan will develop similar implementation principles for management of the three waters aspects of urban growth.

[26] https://ufti.org.nz/wp-content/uploads/2020/05/FINAL-UFTI-REPORT-Social-and-Affordable-Housing-Report-April-2020.pdf

Table 8. Implementation principles for the Connected Centres programme.

Topic	Principles	Need
Macro-urban form	**The sub-region's urban form presents good quality, compact mixed-use urban development with density and destinations focused on PT nodes and along corridors.**	High frequency PT benefits from density concentrated along corridors and nodes in areas of high access to PT service. Density done well and in the right place supports agglomeration benefits which enhance GDP/wage improvements and relative improvement of housing affordability to incomes. UGA connections: quality-built environments, while avoiding unnecessary urban sprawl; assist emission reductions and build climate resilience; enable quality-built environments. Our urban form should enhance transport's role in providing connections between people, product, and places.
Mode shift and micro mobility	**Shared and active modes (including micro-mobility) are the most popular choices for local trips, enhancing travel choice and mode share throughout the sub-region.**	Mode shift has positive social and economic outcomes, as well as the reduction of GHG emissions. Micro-mobility represents an opportunity for our transport system to be more effective for short to medium-length trips but needs enablement. Transform urban mobility by shifting from a reliance on single occupancy vehicles to more sustainable transport solutions for the movement of people.
Community design	**Communities are distinctive places focussed around public open spaces, major amenities (such as civic facilities or cultural assets), and frequent transit where people have easy access to daily destinations to live, work, play and learn, while travelling along streets that are great urban spaces.**	UGA connections: assist emission reductions and build climate resilience; enable quality-built environments, whilst avoiding unnecessary urban sprawl; improve access to employment, education, services. To mitigate required vehicle kilometres travelled, provide for half of trips with local destinations in each community.

Topic	Principles	Need
Neighbourhood design/urban design	**Neighbourhoods are structured so higher-density, mixed-use, walkable, human-scale development focusses around frequent transit, while built form and open spaces express our distinct culture and let people socialise and enjoy our natural assets.**	High frequency PT requires density at nodes and the approach of transit-oriented community design can enable integrated land use-PT outcomes that improve inter-related success factors (such as density, urban form, mode shift). Communities built in this way have proven to be particularly liveable, sustainable, and resilient places. Transit-oriented communities also make it possible to operate efficient, cost-effective transit services. UGA connections: Improve access to employment, education, and services; assist emission reductions and build climate resilience.
Social equity	**Infrastructure and urban form improve all people's access to opportunities necessary to satisfy essential needs and advance wellbeing.**	The benefits of growth and change should be shared equally, and disparity reduced over time. Inclusive access is important to ensuring all people can reach essential services.
Housing quality/affordability	**New developments and urban regeneration projects provide for a mix of housing types and tenure, places for people to play, and include social and affordable housing options.**	Wider range of housing can support supply which meets our changing needs. Quality and cost effectiveness need to be in balance which will change from place to place. UGA connection: Improve choices for the location and type of housing.
Aged care and accessibility	**People can choose to live independently in their communities and are enabled to age-in-place.**	Demographics of the sub-region are likely to continue to have a mix of aging population and inward migration of people seeking the lifestyle the western Bay of Plenty has to offer. The urban form and transport system need to cater for both these groups of people.
Strategic corridor function	**A sub-regional network of strategic transport corridors integrates the purpose and context of each corridor by balancing place and link functions and user priorities.**	Encourage the right management approach to strategic corridors, helping to prioritise ongoing investment which can strengthen transport outcomes for the primary designed strategic purposes of a route. This should lead to an overall improvement in how the network functions for all users. It can support place-making and the local economy by balancing design for place and link functions.

Topic	Principles	Need
		Understanding corridor function and making investment and urban form decisions based on those functions will enhance transport's role to provide connections between people, product, and places.
Environmental design	**The harbour and catchment are healthy and thriving, linked with a blue-green network of natural features and recreational activities in a way which expresses landscape character and enhances natural health.**	Blue/green networks are a holistic way of planning based around waterways (blue), planting and parks (green). Landscape context and character help express the identity of the sub-region through its landscape and supports stronger sense of place and community identity. Environmental performance of urban areas is an important factor in environmental quality.
Tangata whenua/Tauranga Moana	**Tangata whenua cultural narratives and profile are a vibrant and valued part of living in the western Bay of Plenty, articulating a deeper sense of place and enhancing the mauri of Tauranga Moana.**	Ensuring tangata whenua are an equal partner and are able and resourced to participate in decision making.
Recognising environmental constraints	**Protect wāhi toitū (places to remain undisturbed) from development in perpetuity, while in wāhi toiora (places to take care of and protect) change or development occurs with the greatest care.**	Need to manage rural and agricultural land as a resource to produce food; avoid development on hazard prone lands. Reinforce landscape character and sense of place through retained areas of value. Need to understand environmental constraints when designing an urban form that provides safe and resilient connections between people, product, and places. Our climate is changing, and the changes will have consequences for our urban form and transport systems—we need to make decisions about how we adapt our urban form and transport systems to these changes.

Topic	Principles	Need
Hierarchy of interventions	**Optimise the use of existing infrastructure before committing to construct new infrastructure.**	Urban growth will always need new infrastructure to accommodate population growth, but it is important to make sure the plans and frameworks are in place to extract the most value from existing assets before investing in new assets. For example, see https://www.nzta.govt.nz/assets/resources/The-Business-Case-Approach/PBC-intervention-hierarchy.pdf
Economic strategy	**The region's infrastructure and urban form support a sustainable knowledge-intensive economy, driven by innovative people and businesses applying technology, research and development, leveraging the strengths of our natural horticultural and marine-based food basket, with the strength of the port and splendour of Tauranga Moana at the forefront.**	Agglomeration benefits to GDP improve wages and lead to better housing affordability. Higher amenity is known to attract certain classes of employees and therefore make a place increasingly attractive for some types of high-quality employers. Our transport system is critical to support regional development. We need to optimise transport's role in enabling regional communities to thrive socially and economically.
Climate change – mitigation	**Greenhouse Gas emissions from transport achieve net zero by 2050 through a combination of urban form, street design, technology changes and public transport services that allow people to drive less within the sub-region, while strategic transport corridors are made reliable and efficient for freight and inter-regional travel.**	Mode shift towards more sustainable travel can reduce greenhouse gas emissions. Urban form can encourage more opportunities to live, learn, work, and play in the same place ("self-containment") so that the need to travel is reduced. Technology has the potential to reduce transport emissions over time—if infrastructure to support cleaner technologies is in place and market incentives exist. Mode shift alone will not be able to achieve transport emissions targets of net zero by 2050; other actions will be required to support the transition to a low emission economy, including supporting new technologies and considering alternatives for offsets.

Topic	Principles	Need
Monitoring, review, and managing uncertainty	**Performance measures are monitored so that implementation of the strategy adjusts through a regular review and update process. Opportunities are not closed off unnecessarily, including the potential option to use rail for PT purposes and land requirements for corridors.**	Monitoring of progress towards long-term strategic objectives is important to enable adjustments to tactics in response to unknowns. Maintaining strategic options and being prepared for change, enables ability to respond to risk or opportunity.

Implementation of these design principles within the redevelopment of the existing urban areas, the currently planned growth areas identified in the SmartGrowth 2015 Settlement Pattern, and the new envisioned growth area, are critical to the success of the Connected Centres Programme and the achievement of the UFTI benefits.

Benefits, cost, and economic efficiency

To help better understand the potential benefits of the Connected Centres Programme and estimate the potential costs, the programme was tested via the Tauranga transport model, and the economic analysis IER tool. These analysis tools were used to help quantify the potential transport benefits associated with the programme. Overall, the Connected Centres Programme will, over time, achieve the UFTI benefits.

Table 9 shows key transport measures for the 2048 and longer term 400,000 population Connected Centres scenario. A 'do minimum' scenario for the year 2048 is also shown to provide an indication of key measures under a minimal investment approach. It is not possible to model a 'do minimum' scenario for a longer-term scenario with a significant increase in population over a prolonged timeframe, as the transport model cannot return reliable results. A 'do minimum' of this scenario in the longer term would likely indicate low public transport and cycle use, poor accessibility and an extremely congested network that would severely restrict the movement of people and goods.

Table 9. Summary of high level macro modelling data summary.

Programme	Approximate increase in population from 2018	Increase in vehicle transport travelled from 2018	Reduction in transport CO_2 emissions from 2018[27]	Transport crash costs	Percent of total jobs accessible in 45 minutes by PT	Public transport and cycle mode share of the morning peak
2048 'do minimum'	41%	50%	58%	$185m	18%	7%
2048 Connected Centres	41%	50%	58%	$185m	46%	15%
Long-term Connected Centres[28]	112%	113%	47%	$253m	58%	18%

The transport modelling shows improvements in key measures for the Connected Centres programme in terms of accessibility, public transport use, cycling uptake and emission reductions. In the long-term scenario, traffic volumes exceed road capacity on some key routes including parts of the state highway network, although priority lanes would allow buses and freight to bypass congestion. The long-term output is highly indicative due to uncertainties around behaviour change and technology advances for example. The modelling indicates that a much more significant shift away from single occupant vehicle use and improved travel demand management will be necessary over the much longer term to maintain accessibility and support movement of people and goods.

The same economic efficiency and cost estimation methodology used to assess the shortlisted UFTI programmes has been applied to assess the Connected Centres programme and is sufficient to provide a high-level economic analysis commensurate for a programme business case. As improvements are investigated further, the cost and benefits can be calculated with increased certainty, particularly as detailed designs are

[27] The transport model assumes uptake in energy efficient and electric vehicles in line with the Ministry of Transport Vehicle Emissions Prediction Model (VEPM)
[28] Uncertainties in the long term model runs are significant

prepared. As such the rough order costs are indicative only and are used to estimate the benefit cost ratio for the Connected Centres Programme. Table 10 outlines the high-level economic analysis and cost estimate for the Connected Centres programme.

Table 10. Indicative and high level economic analysis of the Connected Centres programme.

Benefit	Assumptions	Do minimum value (PV $m)	Connected Centres value (PV $)
Safety	Proportional to population growth	$800,000	$220m
Access—Active Modes	Proportional to population density or closeness to rail	$120m	$150m
Access—Congestion	Proportional to population growth, and density or closeness to rail	$65m	$740m
Access—Resilience	All programmes assumed equally resilient	-	-
Access—Public Transport	Proportional to population density or closeness to rail	$1.6m	$90m
Wider economic benefits (WEBs)	15% of total benefits	$10m	$125m
Total net benefits (PV, $m)		**Not analysable**	**$1.0b**
Total net costs (PV, $m)		**$510m**	**$1.05b**
Total programme costs (undiscounted)		**$2b**	**$6.9b** ($6b without rail)
Total programme capital costs (undiscounted)		**$400m**	**$3.2b** ($2.7b without rail)
IER		**N/A**	**1.1**
IER (construction at same time at full growth)	Single year construction at full growth	N/A	1.9
IER Range (based on 4% discount rate, lower/higher growth profile)		N/A	1.0–1.4

From this analysis, the Connected Centres programme is estimated to have an indicated efficiency rating range of 1.0-1.4. The economic analysis and cost estimate report containing the details of the methodology and analysis is included in Part 5 as a standalone report.

Financial tools/analysis

The Connected Centres programme has been estimated to be approximately $7 billion programme in 2020 dollars over the next 50 to 100 years, including capital expenditure (new infrastructure) of approximately $3.2 billion and operational expenditure (for instance public transport services, road maintenance) of $3.8 billion. Based on the timing of the actions set out in Part 4, the expenditure is likely to be spread over the timeframes set out in Table 11.

Table 11: Summary of the financial analysis for the Connected Centres programme

Period	Capex ($m)	Opex ($m)	Total ($m)
2021-2030	$1,250	$20	$1270
2031-2040	$580	$145	$725
2041-2050	$580	$145	$725
2051-2060	$1,780	$540	$2,320
2061-2070	$1,780	$520	$2,300
2071-2080	$-	$390	$390
2081-2090	$-	$390	$390
Total	**$5,970**	**$2,150**	**$8,120**

Note: financial analysis is based on assuming a return on investment of 10% per annum, net of the do minimum programme.

The financial estimates and the period in which they could incur are high level and indicative only. They will be refined as further technical work is completed on each package of interventions in the programme.

The costs of implementation of the programme will be split between local and central government. Under current funding models the bulk of the expenditure would come from the National Land Transport Fund, rates and farebox recovery. Based on the rough order capital and operational costs and if current funding processes were followed, approximately 54% of the estimated costs are operational mainly due to the significant increase in public transport services, and 46% are for the capital expenditure. Of the total programme costs, approximately 65% fall to central government through Waka Kotahi and KiwiRail; with the remaining 35% split between Bay of Plenty Regional Council, Tauranga City Council, and Western Bay of Plenty District Council.

Given the high level cost estimate for the Connected Centres programme, it is unrealistic to assume all of the estimated level of expenditure outline in Table 11 will be able to be covered by current revenue sources and revenue . To better understand potential financial and investment mechanisms that could be applicable, NZIER was commissioned to analyse alternative approaches to help fund and finance the Connected Centres programme. Key observations from the analysis include:

1. The traditional rates-based approach to capital planning will continue to have a major role to play in this programme. It provides simplicity, is well understood and partners understand oversight and accountability. The rating base will however come under stress given the significant rate rises that will be needed to fund both capital and operational components of the programme.
2. Public private partnerships (PPP) have a place if the projects are discrete and time-bound. They work even better where the partner can innovate. Tolling forms a potential part of the revenue stream. They may not be the cheapest procurement method, but they can give a high degree of confidence in delivery. Projects such as dedicated bus lanes or alternative harbour crossings may be well suited to a PPP approach as part of a programme of infrastructure construction and delivery over the next 30 years.
3. The concept of value capture (where the uplift in land value for land that benefits from the construction of new infrastructure is used to contribute to funding that infrastructure) could be useful – but it is a tool that is hard to get right (counterparties face strong incentives to push back on the 'value'), but as a targeted rate it is a known tool, and could be used.
4. The Regulatory Asset Base model proposed in the Infrastructure Funding and Financing Bill 2020 seems to have considerable potential**.** This model captures the benefits of a PPP using a public utility entity model rather than a private sector PPP. It is a better model than PPPs at managing complexity over a long duration than the PPP model. A Regulatory Asset Base approach also has the capacity to manage government and multiple private investment arrangements, which are likely to by required in the case of the multi-faceted UFTI programme.

5. Demand management tools such as road pricing were not considered to be good tool for revenue raising and cannot be used for this purpose under the current legislation. Although demand management tools can provide a useful mechanism to improving the function of the transport system by pricing demand.
6. Other tools such as Infrastructure Bonds or off balance sheet financing were considered but not recommended at this stage as "*…the less direct the relationship between users and funding the higher the risk that the funding is simply an ad-hoc tax on selected assets of businesses, and the more likelihood of misallocation of scarce capital. Ultimately all debt has to be repaid.*"

Further work led by the SmartGrowth partners will be completed to identify the preferred funding tools applicable to deliver the Connected Centres programme.

IAF assessment and investment profile

Waka Kotahi require a self-assessment of the UFTI Connected Centres Programme to be undertaken using the Investment Assessment Framework (IAF). The assessment is used to help determine the investment priority that could be attributed to the UFTI programme. The self-assessment is subject to the independent review by Waka Kotahi, and the independent peer reviewer reviewing all the UFTI programme business case.

The Connected Centres programme covers several National Land Transport Programme activity classes. Because much of the UFTI Connected Centres programme is focused on public transport and regional, local road and state highway improvements, the IAF assessment criteria for these activity class has been used. The self-assessment is included in Table 12.

Table 12.: Self-assessment of the UFTI programme using the Investment Assessment Framework

GPS priority	Public transport, rapid transit, and transition rail improvements——very high results alignment criteria	Regional, local road and state highway improvements—high results alignment criteria	UFTI self-assessment
Safety—a safe transport system free of	• N/A	• Addresses safety issues presenting a high crash risk, affecting communities subject to high safety risk, and/or in	***Results alignment for safety for <u>regional, local road and state highway improvements</u>—high results alignment*** There are numerous improvements planned across the multimodal transport system to improve road safety and

GPS priority	Public transport, rapid transit, and transition rail improvements—very high results alignment criteria	Regional, local road and state highway improvements—high results alignment criteria	UFTI self-assessment
death and serious injury		Safer Journeys area of high concern • Addresses safety issues presenting a high societal consequence risk	reduce safety risks for all users, and particularly more vulnerable users, using active modes. Much of the safety benefits are related to the significant increase in public transport use. Where improvements are made throughout the UFTI programme, the expectation is that road safety will be considered, and a safe system design will be incorporated. Transport modelling suggests despite a significant increase of people, costs associated with crashes decline with the Connected Centres programme. The modelled safety improvement is related, in part, to the increase in multimodal use across the transport system. Within the Connected Centres programme, there are some specific short to medium-term programmes and projects that will deliver safety outcomes including: • delivery of the Cameron Rd multimodal project, • the Te Papa urban form and transport improvements, and • the Western Bay of Plenty District Council and Tauranga City Council cycling programmes which will address a number of safety issues within known safety areas such as the CBD, Totara Rd, journeys to schools, and other key destinations where safety (real and perceived) is an issue for all active mode users.

GPS priority	Public transport, rapid transit, and transition rail improvements——very high results alignment criteria	Regional, local road and state highway improvements—high results alignment criteria	UFTI self-assessment
			• Enhancements to the public transport services and improved public transport infrastructure
Access to opportunities, enables transport choice and access, and is resilient—liveable cities	• Enables a substantial increase in access to social and economic opportunities for large numbers of people along dedicated key corridors and enables transit-orientated development	• Supports high priority elements in agreed integrated land use and multimodal plans • Addresses significant gap in access to new housing in high growth urban areas • Addresses a significant resilience risk to continued operation of key corridors • Makes best use of key corridors that prioritise multimodal use and freight	***Results alignment for access for <u>public transport, rapid transit, and transition rail improvements</u>*—very high results alignment** The Connected Centres programme is centred on higher density growth areas (new and within existing) with average densities of a minimum 30 dwellings per hectare which will be implemented over time. The increase in intensification is deliberate to substantially increase access to social and economic opportunities for the communities within the western Bay of Plenty sub-region and enable transit-orientated development. Within the new and existing growth areas, dwelling densities around key dedicated multimodal corridors, and centres will be greater than 30 dwellings per hectare. Modelling shows an approximate 18 percent increase in AM peak mode shift (public transport and walking and cycling), and an increase of 58 percent in terms of access to jobs via public transport. The modelling is likely to be conservative as the model runs are based on the current settlement pattern for the first 30 years, despite plans and intent to increase intensification within existing urban areas and implement the UFTI principles for increasing housing densities. Further, the modelling does not take in account the potential modal shift that can be experienced because of a shift in public

GPS priority	Public transport, rapid transit, and transition rail improvements—very high results alignment criteria	Regional, local road and state highway improvements—high results alignment criteria	UFTI self-assessment
			perceptions about public transport. However, the modelling does provide a useful indication at the macro level. ***Results alignment for access for <u>regional, local road and state highway improvements</u>—high results alignment*** UFTI is about the integration of land use, urban form, and transport. The Connected Centres programme has been designed based on where people can live and move in the future. The starting premise has been to focus on where people live and the supporting urban form (i.e. densities etc.), and then designing the improved and multimodal transport system to enable the efficient and effect movement of people and goods in a way that increases access and improves transport choices. The UFTI programme and approach to the programme development is a significant departure from previous transport business cases or land use planning—where the integration between land use and transport has been lacking, and significant emphasis placed on the levels of service provided to general traffic. UFTI provides a marked and significant turning point for the sub-region. The UFTI programme focuses on the development of a multimodal transport system that supports and increases access to current and new growth areas. The improved access is often by way of providing public transport prioritisation

GPS priority	Public transport, rapid transit, and transition rail improvements—very high results alignment criteria	Regional, local road and state highway improvements—high results alignment criteria	UFTI self-assessment
			improvements to regional, local, and state highways, and enabling safe walking and cycling access. Improvements to enable predictable freight journeys to the Port of Tauranga and to/from Rotorua and the Eastern Bay of Plenty—particularly during the interpeak—are also included in the programme. Through the multimodal and freight improvements, there are likely to be secondary benefits for all general traffic. However, this is not the primary purpose of the transport improvements put forward. To help improve network resilience, the UFTI "Connected Centres" programme includes improvements to some of the existing harbour crossings structures such as additional capacity on Turret Rd to support multimodal journeys. A new and/or upgraded rail/public transport crossing is also proposed. This crossing is a significant cost in the programme; however, it does provide significantly greater opportunities for a more efficient and effective multimodal transport system and provides increased network resilience. The western Bay of Plenty sub region is susceptible to all natural hazard risks. Through the constraints map, envisioned land use in the Connected Centres programme generally tries to avoid the known natural hazards. The envisioned dwelling allocations reflect this, for example, there is minimal intensification envisioned for Papamoa around Bruce Rd, Domain Rd, and

GPS priority	Public transport, rapid transit, and transition rail improvements——very high results alignment criteria	Regional, local road and state highway improvements—high results alignment criteria	UFTI self-assessment
			Tara Rd taking into account the known natural constraints within this area. As the envisioned growth areas are investigated further, more information will arise about potential hazards which will be incorporated in the master and structure planning. Much of the existing transport system is used to enable access for the envisions growth areas. Where transports improvements are required, more detailed investigations will take place taking in account the localised natural hazards. Based on investigations decisions to engineer up or adapt the alignment to improve resilience can be made. If resilience were assessed on its own, a 'medium' resulting alignment rating would be applicable. However, the other results alignment factors out-weight this dimension and an overall 'high' results alignment remains.
Environmental	• Enables significant reductions in harm to the environment and people, particularly arising from land transport related air pollution and noise • Enables long-term reductions in greenhouse gas	• Addresses significant reductions in regard to the environment and people, particularly arising from land transport-related air pollution, noise, and impact of construction and ongoing use of transport infrastructure	One of the benefits of the UFTI Connected Centres programme is the reduction of transport related air pollution. Modelling suggests that with the Connected Centres Programme, GHG transport emissions will be significantly less than the corresponding potential population growth would normally create. As stated earlier, the modelling is considered to be conservative and there is potential for further emission reductions with an increase in modal shift that could be achieve with the prioritisation of investment to develop a truly multimodal transport system.

GPS priority	Public transport, rapid transit, and transition rail improvements—very high results alignment criteria	Regional, local road and state highway improvements—high results alignment criteria	UFTI self-assessment
	emissions from land transport	on water quality and biodiversity • Addresses long term significant reductions in greenhouse gas emission from land transport	The packages of work also include investigation and if necessary/appropriate active involvement by the partners in the planning and delivery of alternative transport fuels infrastructure to accelerate shift to low emission transport technologies. The use of the wāhi toitū and wāhi toiora approach to constraints mapping helps ensure that areas of high sensitivity are avoided in future growth plans. The implementation principles that form part of the programme and act as a guide for implementation decision makers include emphasis on protecting and enhancing the quality of Tauranga Moana and improving the quality of urban amenities.

Based on the self-assessment, the UFTI Connected Centres programme is assessed to have a **high** results alignment. The indicative efficiency rating range of 1.0–1.4, means the programme has a **low** efficiency score.

Overall, the UFTI Connected Centres programme has a score of **HL**, and therefore an investment priority of **5** (where 1 is the highest investment priority and 8 is the lowest). Based on the indicative investment priority and subject to the national prioritisation of transport investment of Waka Kotahi, and funding availability, the Connected Centres programme could seek transport funding and be included in future National Land Transport Programmes.

Part 4: Delivering the Connected Centres programme

Introduction

Delivery of the programme set out in Part 3 of this Report is going to be a complex task. It requires multiple organisations with different mandates and funding priorities, to operate collectively to achieve a common goal over thirty years, while the operating environment (e.g. available information, certainty and risks, development viability, partner priorities, technology and funding and financing tools) changes and evolves constantly around them.

The framework for managing implementation of a programme of this complexity needs to be based on principles and outcomes, collaborative, with joined up governance, and have the flexibility to adjust the strategy as circumstances change supported through considered and robust monitoring. The governance needs to remain committed to the envisioned future, while understanding that things will not always go as planned at the outset, and that tweaks and adjustments will need to be made continuously.

This section provides the 'Management Case' that sets out the plan for implementation over the next ten years.[29] It focuses on the key moves partners need to take, the governance processes and systems required to manage collaborative partner implementation processes for monitoring and review of the strategy and benefit realisation processes.

At the level of a Programme Business Case of this geographic scale and timeframe, the level of detail for some aspects of a traditional management case (e.g. consenting strategy) will be necessarily generic—with specificity to be added in subsequent more detailed business case phases.

Delivering the programme: key moves

The packages of work set out in Part 3 bring together a range of related pieces of work into a single integrated package. Each package represents a "key move" made up of multiple initiatives. As the portfolio manager SmartGrowth "owns" the packages and monitors and reports on progress at an outcome level to the individual partners. As part of the SmartGrowth Leadership Group's annual reporting cycle progress reporting against near term actions will take place 6-monthly. The regular scrutinization by the SmartGrowth Leadership Group will aid progress and assist with timely delivery.

[29] For more information on the requirements of the Management Case as part of a Business Case refer www.treasury.govt.nz and/or www.nzta.govt.nz

As set out in Part 3, only key projects for each package are identified in this document. The technical report has more detail of possible projects that could be included in each package. However, that detail is not needed here as not all those possible projects will be necessary. One of the tasks of the co-ordinating bodies identified in the implementation structure will be actively adjusting the list of projects being delivered within each package as circumstances change. For instance, the Transport System Operating Framework that will be developed as part of the Transport System Plan will refine the timings and conceptual form of relevant transport related project, while delivering on the UFTI strategic direction and in particular the agreed strategic function, for inclusion into the Regional Land Transport Programme by the Regional Transport Committee.

In this section, we set out the key moves in each package that should ideally be implemented in the next 0–1,1–3, 3–10 and 10–30 years. We have acknowledged the key UFTI Benefits that this package is expected to deliver and any broader outcomes that the package should also provide for. These broader outcomes are derived from the Treasury Living Standards Framework and the Ministry of Transport's Transport Outcomes Framework and are important primary or secondary benefits that should be acknowledged and provided for in investment decision-making by the partners.

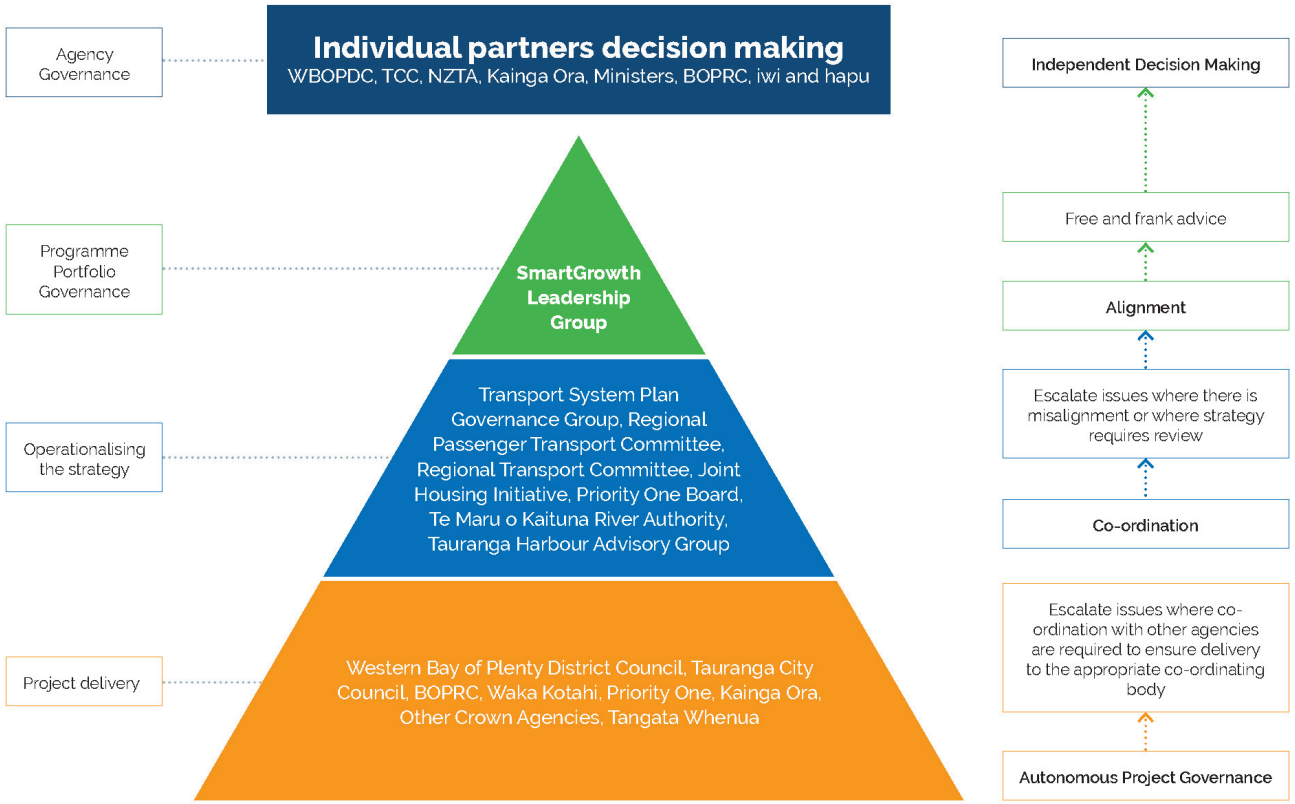
The action tables set out in this section provide an initial indication of the roles of the respective partners for each initiative. For those that require National Land Transport Fund investment we expect the allocation of accountability to be revisited as part of subsequent Point of Entry decisions or at project inception where the project is funded through other avenues. The tables below also identify projects that are already committed (i.e., funding has been set aside in the relevant LTP or RPTP and/or the NTLP).

Many projects listed in the table will have their feasibility tested through business cases, resource consents and other partner decision-making processes. Where we have included all phases of a project, we have assumed that the project passes through these phases—so all subsequent phases assume that the relevant process has determined that it is feasible for the project to continue to the next stage. As UFTI is implemented we would expect these tables to be updated—and projects added or dropped off as investigations are completed. This is a task for SmartGrowth as the portfolio owner and advised by the co-ordinating bodies.

Programme governance and management

The western Bay of Plenty sub-region has a mature collaborative governance model based around SmartGrowth. This structure will be used to govern delivery of the UFTI programme business case following the model shown in Figure 25. The SmartGrowth structure has recently been adjusted to bring Ministerial representation into the joint governance committee, meaning all investment partners now have an equal voice at a governance level. SmartGrowth is therefore the key governance entity, supported by a range of (pre-existing and proposed) coordinating committees and groups based around specific themes, packages of work, or disciplines. Information flows and escalation rules apply across this system, thus ensuring specific decisions are made at the most appropriate level.

Figure 25.: Governing structure to deliver the Connected Centres programme.



Key coordinating bodies with wider statutory functions include the Regional Transport Committee (RTC), the Regional Passenger Transport Committee (RPTC), emerging iwi co-management structures such as the Te Maru o Kaituna River Authority, and the Western Bay of Plenty Transport System Plan governance group that is the key coordinating body for transport interventions.

Nothing in this structure takes away the statutory independence of these organisations where it exists, but in addition to those decision-making functions, we will be using these structures to co-ordinate implementation activity across the partnership where-ever possible.

These groups will also report regularly on implementation activities to SmartGrowth to allow it to track progress. Project delivery risk (programme, scope, budget) including change management is the responsibility of these co-ordinating groups or individual agencies. Where material risk to UFTI programme outcomes are identified these would be escalated to the SmartGrowth Leadership Group.

Matters that impact on strategy delivery that cannot be resolved, will be reported through to the SmartGrowth Leadership Group. Where conflict exists the SmartGrowth Leadership Group's role, as owner of the strategy, will be to attempt to mediate a solution, and if that is not possible, will consider adjusting the strategy, if all of the partners can agree to that change. The detailed processes by which this escalation occurs will be agreed as part of the terms of references or any other operating procedures for the SmartGrowth Leadership Group.

The model is based around the following governance principles which are set out in more detail below:

1. **Individual accountability:** Each partner retains accountability for making financial and management decisions related to projects they are responsible for delivering.
2. **Shared responsibility:** Each partner is committed to achieving a shared vision and is responsible for working together with other partners to achieve that vision.
3. **Collaborative intent:** The partners commit to working together collaboratively in accordance with the shared behaviours set out in Appendix A.
4. **Adaptive management:** The partners recognise that circumstances change, and they need to apply dynamic adaptive pathway approaches to implementation, tracking key indicators and adjusting delivery priorities, while always keeping the trajectory moving toward the desired future.

The implementation structure relies on a simple escalation process based on the principle that, wherever possible, decisions are made as close to the actual delivery activity as possible. This means that for most actions, implementation decisions will be made by the accountable agency or its delegate using their existing project management and decision-making practices. Where the decision impacts on multiple agencies functions or accountabilities, the project manager would escalate the issue to the relevant co-ordinating body. Where that co-ordinating body was unable to reach a consensus or identifies an issue that might require the strategy to change it would escalate the matter to SmartGrowth Leadership Group for resolution.

To help explore how this system will operate we have adapted a traditional responsibility allocation framework (e.g., RASCI) to identify the roles of the different parties in delivery of different initiatives. The framework we are using is a modified PACSI framework. This framework is specifically designed for organisations where the output of activities under the accountability of a single person/function can be reviewed and potentially vetoed by multiple stakeholders due to overlapping accountabilities.

This means agencies roles are categorised as per the following:

Perform (P): The entity carrying out the activity on behalf of the partners.

Accountable (A): The partners ultimately answerable for the correct and thorough completion of the task (can be the agency that delegates a function).

Suggest (S): The partners consulted to give advice based upon recognised expertise, the expectation is this advice will be followed unless there are clear reasons to not do so. In those circumstances, we expect clear communication and negotiation before advice is rejected.

Control (C): The partners reviewing the result of the activity with decision-making rights that could impact on the ability to deliver the project if exercised. Where a partner is a co-investor, it will typically have a control role.

Informed (I): The partners who must be informed of the result of the activity.

The role of an agency will shift over time and within projects, and sometimes there will be multiple agencies with overlapping roles. We would expect the roles to be clarified by the partners project by project, so the roles identified are indicative roles only, subject to review as implementation progresses. As an example, Table 13 outlines how we have applied the framework below to the public transport system based on current statutory roles.

Table 13. Example of how the PASCI framework can be applied.

TASK	BOPRC	TCC	WBOPDC	Waka Kotahi (NZ Transport Agency)	Tangata Whenua	SmartGrowth
Regional Passenger Transport Planning and monitoring of its effectiveness	Accountable	Suggest	Suggest	Control (via co-investment decisions or standard setting)	Suggest	Suggest
Operation of the public transport system	Accountable	Suggest	Suggest	Suggest	Inform	Inform

TASK	BOPRC	TCC	WBOPDC	Waka Kotahi (NZ Transport Agency)	Tangata Whenua	SmartGrowth
Public Transport infrastructure	Control	Accountable	Accountable	Accountable	Suggest (location of infrastructure)	Inform

Actions to implement the Connected Centres programme

The tables below outline the actions that will be delivered over time as the Connected Centres programme is implemented. The actions are organised via the SmartGrowth corridors first, with other actions grouped together where there are commonalities.

The Central Corridor urban form and transport corridor package

The Central Corridor urban form and transport corridor package			
UFTI benefits Housing, movement, environment, prosperity		**Broader outcomes** Improved liveability/place making/amenities, attractive and thriving sub-region, supporting growth, increased safety (transport and personal), better travel choices, improved modal shift, improved housing affordability	
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Complete Te Papa business cases, District Plan changes to support City intensification, and carparking strategy changes to support increased parking turn-over	0-5 years	TCC (A) (C), BOPRC (S), Waka Kotahi (S), WBOPDC (I), SmartGrowth Secretariat (S), tangata whenua (S)	Yes
Complete Te Papa place making initiatives to support increased residential density and provide amenity such as Memorial Park Upgrade	0-30 years	TCC (A) (C), tangata whenua (S), other partners (I)	No
Complete multimodal Cameron Rd improvements to support PT uptake, active modes, and intensification (TCC). Project in two stages to deliver PT infrastructure necessary to support PT journeys. Stages 1 and 2 completed early to encourage PT uptake.	0-10 years for early stage; 0-20 years for all	TCC (A) (C), BOPRC (S) (C), Waka Kotahi (S) (C), Other partners (I), tangata whenua (S), TSP (P)	No

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Complete multimodal corridor and intersection improvements at Barkes Corner and Takitimu Drive roundabout to support strategic PT journey from Tauriko to the City Centre	0-10 years	TCC (S), BOPRC (S)(C), Waka Kotahi (A), other partners (I), tangata whenua (S), TSP (P)	No
SH29A capacity improvements between SH29 and Oropi Roundabout to support PT and freight journeys (could be delivered together with 4 above)	10-15 years	Waka Kotahi (A) (C), TCC (S), BOPRC (S) (C), other partners (I), tangata whenua (S), TSP (P)	No
Confirm locations for PT hubs and interchanges in the central corridor (in consideration of TNL connections decisions)	1-4 years	TCC (A) (C), BOPRC (A) (C), Waka Kotahi (S) (C), other partners (S)	No
Turret Rd and 15th Ave improvements to support improved multimodal access, safety, better travel choices, and Te Papa place making	1-10 years	TCC (A) (C), BOPRC (S), Waka Kotahi (S) (C), other partners (I) Tangata whenua (S), TSP (P)	No
Commence planning for the regeneration of Pukehinahina/Gate Pā and Merivale residential areas in partnership with Accessible Properties, central and local government to provide additional social housing dwellings	1-3 years	TCC (S), Kāinga Ora (TBC), Accessible Properties (TBC), tangata whenua (S), other partners (I)	No
Establish active Partnership with Bay of Plenty District Health Board and Waikato University as key destinations in the corridor to promote use of public transport and active modes	1 year	TCC (A), BOPRC (A), Waka Kotahi (S), Waikato University (S), BOPDHB (S), other partners (I)	No

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Determine future use of Crown-owned land in the central corridor	4-10 years	MHUD (A) Kāinga Ora (TBC), TCC (S), tangata whenua (S), other partners (I)	N
Otumoetai Spatial Framework and DBC	1-3 years	TCC (A) (C), BOPRC (S) (C), Waka Kotahi (C), WBOPDC (I), tangata whenua (S)	Yes
Incorporate Otumoetai, Mt Maunganui to Bayfair/Arakaki intensification provisions into revised District Plan	4-10 years	TCC (A) (C), BOPRC (S) (C), Waka Kotahi (S), WBOPDC (I), SmartGrowth Secretariat (S), tangata whenua (S)	No

The Western Corridor package

The Western Corridor package			
UFTI benefits Housing, movement, environment, prosperity		**Broader outcomes** Improved liveability/place making/amenities, attractive and thriving sub-region, supporting growth, increased safety (transport and personal), better travel choices, improved modal shift, improved housing affordability	
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Complete structure planning and rezoning for the Tauriko Business Estate extension and Keenan Rd	0-5 years	TCC (A), all other partners (S)	Yes

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Complete local authority boundary adjustments	1 year	LGC (A), TCC (S), WBOPDC (S), BOPRC (S)	Yes
Complete Tauriko West structure plan and rezoning	1–3 years	TCC (A), all other partners (s)	Yes
Complete and deliver Tauriko early works business case and associated improvements	1–3 years	TCC (A), Waka Kotahi (A), BOPRC (S), tangata whenua (S), all other partners (I)	No
Complete Tauriko West Network Connections Detailed Business Case and other related DBCs to create a multi modal transport network	1–3 years	TCC (A), Waka Kotahi (A), BOPRC (S), tangata whenua (S), all other partners (I)	Yes
Implement Tauriko West Network Connections (including multi modal) improvements stage 1	4–10 years	TCC (A), Waka Kotahi (A), BOPRC (S), tangata whenua (S), all other partners (I)	No
Implement Tauriko West Network Connections (including multi modal) improvements stage 2	10 plus years	TCC (A), Waka Kotahi (A), BOPRC (S), tangata whenua (S), all other partners (I)	No
Review timing and sequencing of new greenfield sites on the western and northern corridors in light of further technical work and adjust spatial plan as appropriate	10 years	SmartGrowth Secretariat (P), All other partners (A)	No
Complete master plan for the Western Corridor urbanisation (incl Upper Belk, Merrick, and Joyce Roads[30]	10–20 years	TCC (A), all other partners (S)	No

[30] The timing and sequencing of this activity with the Northern will need to be reviewed once the review of timing and sequencing of greenfield sites in the action above is completed. This is likely to occur in in ten years' time.

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Deliver social and community infrastructure to support planned growth in the Western Corridor	1–10 years	Ministry of Education (A), TCC (A), all other partners (I)	Partial
Construct new infrastructure to support further Western Corridor urbanisation	30 plus years	To be determined	No

Freight access to the Port and the upper North Island package

Freight access to the Port and the upper North Island Package			
UFTI benefits Movement, prosperity		**Broader outcomes** Thriving sub-region, supporting growth, increased safety (transport and personal), better travel choices, improved modal shift, inter-regional freight efficiency	
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Design Hewletts Road optimisation package, including intersection optimisation improvements, lane usage, PT priority lanes etc. to support the strategic function and mode/movement priorities	0–1year	Waka Kotahi (A), TCC (A), BOPRC (S) (C), Port of Tauranga (S) (C), KiwiRail (S) (C), tangata whenua (S), TSP (P)	Yes
Implement Hewletts Road optimisation package, including intersection optimisation improvements, lane usage, PT priority lanes etc to support the strategic function and mode/movement priorities	1–3 years	Waka Kotahi (A), TCC (A), BOPRC (S) (C), Port of Tauranga (S) (C), KiwiRail (S) (C), tangata whenua (S), TSP (P)	No

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Complete Hewletts Road sub-area access single stage business case	1-3 years	Waka Kotahi (A), TCC (A), BOPRC (S), Port of Tauranga (S) (C), KiwiRail (S) (C), tangata whenua (S), TSP (P)	No
Implement Hewletts Road sub-area access single stage business case	4-10 years	Waka Kotahi (A), TCC (A), BOPRC (S), Port of Tauranga (S) (C), KiwiRail (S) (C), tangata whenua (S), (TCC change)	
Investigate SH29A single stage business case and optimisation package (including intersection optimisation improvements, lane usage, PT priority lanes etc) to support the strategic function and mode/movement priorities	1-3 years	Waka Kotahi (A), TCC(S) (C), BOPRC (S) (C), tangata whenua (S) (C), TSP (P)	No
Implement SH29A single stage business case and optimisation package	10–30 years	Waka Kotahi (A), TCC(S), BOPRC (S) (C), tangata whenua (S) (C), TSP (P)	No
Continue to invest in optimisation of the rail network to continue to increase mode share of freight movement by rail	Ongoing	KiwiRail (A), Waka Kotahi (C) all other partners (S)	No

CBD and Mt Maunganui package

CBD and Mt Maunganui package			
UFTI benefits Housing, movement, environment, prosperity		**Broader outcomes** Improved liveability/place making/amenities, attractive and thriving sub-region, supporting growth, increased safety (transport and personal), better travel choices, improved modal shift, improved housing affordability	
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Complete investigations into Mount Maunganui to CBD Ferry Connection and convert into business case	0–1 year	TCC (C), BOPRC (A), Waka Kotahi (S), tangata whenua (S), Priority 1 (P), other partners (I)	Yes
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Deliver Mount Maunganui to CBD Ferry Connection	1–3 years	TCC (A), BOPRC (A), Waka Kotahi (C), tangata whenua (S), Priority1 (P), other partners (I)	No
Implement multi-modal Maunganui Rd business case	1–3 years	TCC (A), Waka Kotahi (S) (C), BOPRC (S) (C), tangata whenua (S)	Yes
Complete CBD revitalisation strategy to attract business and residential growth	1–3 years	P1 (P), TCC (A), Waka Kotahi (S), BOPRC (S), (C), tangata whenua (S)	Yes
Complete Mt Maunganui/Bayfair/Arataki Spatial Planning Framework and DBCs	1–3 years	TCC (A), all other partners (S)	No

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Complete IBC(s) and DBCs examining potential alignment of additional bus lane capacity (Harbour Crossing) and alternatives for the Matapihi Rail Bridge replacement[31]	4–10 years	KiwiRail (A), Waka Kotahi (**A**), BOPRC (S) (C), TCC (A) (C), tangata whenua (S) (C), TSP (P)	No
Implement additional bus lane Capacity (Harbour Crossing) and Matapihi Rail Bridge replacement IBC/DBC	10–30 years	KiwiRail (A), Waka Kotahi (A), BOPRC (S) (C), TCC (A) (C), tangata whenua (S) (C)	No
Implement CBD revitalisation strategy	3–10 years	TCC (A), P1 (S), Waka Kotahi (S), BOPRC (S) (C), tangata whenua (S)	No

[31] The potential for an additional harbour crossing is sensitive and will involve the same communities in potentially parallel conversations. We have proposed combining the two topics into a single process to avoid duplication and enable an integrated conversation with tangata whenua. If necessary, they can be separated.

The Northern Corridor package

The Northern Corridor package			
UFTI benefits Housing, Movement, Environment, Prosperity		**Broader outcomes** Improved liveability/place making/amenities, attractive and thriving sub-region, supporting growth, increased safety (transport and personal), better travel choices, improved modal shift, improved housing affordability	
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Complete investigations into Omokoroa to CBD Ferry Connection (Ferry Connections SSBC)	0–1 year	TCC (C), WBOPDC (A); BOPRC (A), Waka Kotahi (S), (C) tangata whenua (S), Priority 1 (P), other partners (I)	Yes
Complete Omokoroa Stage 3 Structure Plan	1–3 years	WBOPDC (A), Waka Kotahi (S), (C), tangata whenua (S)	Yes
Deliver social and community infrastructure to support planned growth in the Northern Corridor	1–10 years	WBOPDC (A), Ministry of Education (A), tangata whenua (S)	Yes
Complete Northern revocation planning for old SH2 through Te Puna and Bethlehem	1–3 years	Waka Kotahi (A), WBOPDC (A), TCC (A), other partners (I), TSP (P)	Yes
Complete the TNL Tauranga Connections Network Plan via the Transport system operating framework.	0–1 year	Waka Kotahi (A), TCC (S) (C), BOPRC (S) (C), tangata whenua (S), all other partners (I), TSP (P)	Yes
Construct Tauranga Northern Link and Omokoroa Extension with Tauranga network connections	1–7 years	Waka Kotahi (A), all other partners (S)	Yes

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Complete Northern revocation planning for old SH2 Te Puna to Omokoroa	3–7	WBOPDC (A) (C), Waka Kotahi (A) (C), BOPRC (for PT) (A) (C), all other partners (I), TSP (P)	Yes
Complete Te Puna Master Plan	20–30 years	WBOPDC (A) (C), all other partners (S)	No
Design park n ride facilities at Apata, Omokoroa, and Te Puna for high frequency PT services (future proofed for rail)	1–5 years	WBOPDC (A), BOPRC (S) (C), all other partners (S)	No
Deliver park n ride facilities at Apata, Omokoroa, and Te Puna for high frequency PT services (future-proofed for rail)	5–10 years	WBOPDC (A), BOPRC (S) (C), Waka Kotahi (C), all other partners (S)	No

Eastern Corridor package

The Eastern Corridor package			
UFTI benefits Housing, movement, environment, prosperity		**Broader outcomes** Improved liveability/place making/amenities, attractive and thriving sub-region, supporting growth, increased safety (transport and personal), better travel choices, improved modal shift, improved housing affordability	
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Resolve access to Te Tumu	1–3 years	TCC (A), tangata whenua (A), Waka Kotahi (S), MHUD (S)	
Te Tumu Structure Plan and rezoning	1–3 years	TCC (A), all other partners (S)	Yes
Te Tumu transport multi modal network design and delivery	4-10 years	TCC (A), BOPRC and Waka Kotahi (S) (C), all other partners (S)	Yes
Te Tumu and Wairakei community facilities to support town centre and amenity	4–10 years	Ministry of Education (A), TCC (A), all other partners (I)	Partial
Complete Rangiuru Business Park including the interchange to support road/rail integration, and freight movements to the Port	1–3 years	Waka Kotahi (S) (C), WBOPDC (A), TCC (I), tangata whenua (S), all other parties (I)	No
Complete Papamoa East Interchange	1-10 years	Waka Kotahi (S) (C), TCC (A), tangata whenua (S), all other parties (I)	Yes

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Prepare new eastern settlement concept plan that defines location of new settlement, and associated District Plan change to protect the area from inappropriate subdivision and development	4–10 years	WBOPDC (A), all other partners (S)	No
Complete New Eastern Settlement Masterplan including decisions on multi modal connectivity between new settlement, Wairakei, Rangiuru and Te Puke	10–20 years	WBOPDC (A), all other partners (S)	No
Construct infrastructure to support new eastern settlement	20 years onwards	To be determined	No

Enhancing the role of tangata whenua as a treaty partner

Enhancing the role of tangata whenua as a treaty partner			
UFTI benefits Housing, movement, environment, prosperity		**Broader outcomes** Tangata whenua participation, Māori social and economic outcomes	
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Improve level of advice, support, and resourcing for tangata whenua participation in SmartGrowth. Set up a new expert advisory panel of relevant experts from within tangata whenua to assist tangata whenua	0–1 year	SmartGrowth Secretariat(P), tangata whenua (A), Kāinga Ora (TBC), all other agencies (S)	Yes

in their role as partners of SmartGrowth. The expert group will provide advice and assist with indirect engagement with hapū and iwi, Māori Land Trusts and Incorporations and Post-Settlement Governance Entities			
SmartGrowth Leadership Group to develop agreed hapū and iwi engagement protocols and work with tangata whenua to establish cultural outcomes as key performance indicators	0–1 year	SmartGrowth Secretariat (A), tangata whenua (C), all other agencies (S)	Yes
Develop Iwi Spatial Plan for incorporation in SmartGrowth Joint Spatial Plan	0–1 year	Tangata whenua (A), SmartGrowth Secretariat(P), all other partners (S)	Yes
Develop and implement plan of actions arising from Joint Spatial Plan	1–3 years	To be determined	

Sub-regional housing supply and affordability initiatives

The sub-regional housing supply and affordability initiatives package			
UFTI benefits Housing		**Broader outcomes** Improved liveability/place making/amenities, attractive and thriving sub-region, supporting growth, improved housing affordability	
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Develop portfolio management approach Take a portfolio management approach to foster greater collaboration and strategic decisions potentially through a new Housing Portfolio Partnership Entity (HPPE) to co-ordinate response to housing supply and affordability issues.	0–1years	SmartGrowth Secretariat (P), Kāinga Ora (S), MHUD (S) TCC (S), WBOPDC (S), tangata whenua (S)	Yes
Project delivery of affordable housing (firstly in the Te Papa peninsula): Capitalise opportunities for social and affordable housing (identified through the portfolio management approach) through the most effective project structure. Short-term focus (in Te Papa and Te Puke, Omokoroa and Katikati first)	1–10 years	To be confirmed by the partners	No
Project delivery for affordable housing elsewhere with an emphasis on catalyst projects in urban centres and around PT nodes/Corridors	3–30 years	To be confirmed by the partners	No

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Reinvigorate Te Keteparaha Mo Nga Papakāinga – Māori Housing Toolkit	0–1 year	SmartGrowth Secretariat (P), TCC (S), MHUD (S) WBOPDC (S), tangata whenua (A)(C)	No
Develop sub-regional social and affordable housing plan using a collaborative approach to set out actions and responsibilities between partners	1–3 years	SmartGrowth Secretariat (P), TCC (S), WBOPDC (S), tangata whenua (S) and other partners as agreed	No
Investigate on a council by council basis the ability for financial incentives or concessions to deliver social housing.	1–3 years	To be determined by sub-regional social and affordable housing plan.	Partial
Actively encourage philanthropic investment into social housing	Ongoing	SmartGrowth Secretariat (P), TCC (S), WBOPDC (S), Tangata Whenua (S)	Partial
Continue to optimise through district plan reviews and plan changes how district plans: • provide for regulatory incentives and addressing disincentives to affordable housing • enable a greater mix of residential section size and building typologies • define an appropriate balance between quality of developments and cost effectiveness • streamline administrative and plan change processes	1–10 years	TCC (A), WBOPDC (A), all other partners as required (S) Tangata Whenua	No
Reinvigorate Te Keteparaha Mo Nga Papakāinga – Māori Housing Toolkit	0–1 year	SmartGrowth Secretariat (P), TCC (S), MHUD (S) WBOPDC (S), tangata whenua (A)(C)	No

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Seek voluntary agreements with developers regarding land covenants they impose in private developments to ensure such covenants do not preclude delivery of affordable housing	Ongoing	TCC (A), WBOPDC (A), all other partners (S), tangata whenua	No
Support removal of barriers in legislation such as RMA and Building Act to provision of affordable and social housing	Ongoing	SmartGrowth Partner Secretariat (P) and other partners as required	No

Sub-regional PT, mode shift, and emission reduction initiatives

The sub-regional PT, mode shift, and emission reduction initiatives package			
UFTI benefits Housing, movement, Environment, Prosperity		**Broader outcomes** Improved liveability/place making/amenities, attractive and thriving sub-region, supporting growth, increased safety (transport and personal), better travel choices, improved modal shift, improved housing affordability	
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Plan and facilitate introduction of low carbon transport fuel infrastructure (e.g., EV or Hydrogen) network for the sub-region	0–10 years	BOPRC, TCC, Waka Kotahi (A) and WBOPDC (A), TSP(P)	No

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Implement Western Bay of Plenty's Walking and Cycling network (first 60% delivered within 10 years)	0–30 years	TCC(A), WBOPDC (A), BOPRC(S), Tangata whenua(S), Waka Kotahi (A)	Partial
Complete mode shift plan for the sub-region	0–1 year	BOPRC (S) (C), Waka Kotahi (A), all other partners (S)	Partial
Enhancements to existing PT network and infrastructure to support mode shift and intensification initiatives including those identified via the Transport System Operating Framework	Ongoing	BOPRC (A), TCC (A), WBOPDC (A), Waka Kotahi (S) (C), all other partners (I), TSP (P)	Partial
Deliver a mode shift behavioural change programme to support and enable mode shift	1–3 years	BOPRC (A), Waka Kotahi (S) (C), TCC (S), WBOPDC (S), all other partners (I)	Partial

Other transport, policy, and pricing interventions

Other transport, policy, and pricing interventions package			
UFTI benefits Housing, movement, environment, prosperity		**Broader outcomes** Improved liveability/place making/amenities, attractive and thriving sub-region, supporting growth, increased safety (transport and personal), better travel choices, improved modal shift, improved housing affordability	
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Complete Transport System Operating Framework and refine list of UFTI implementation actions accordingly	0–1 year	TCC (A), Waka Kotahi (A), BOPRC (A), WBOPDC (A), all other partners (S), TSP (P)	Yes
Develop a monitoring framework for the Key Performance Indicators and Measures to form part of SmartGrowth Leadership Group's portfolio monitoring and reporting	0-1 year	SmartGrowth secretariat (P), TSP (P), all other partners A	Partial
Complete SmartGrowth Joint Spatial Plan including new iwi spatial layer, utility service provision plan and consideration of other core services such as fire, police, health, and education	0–1 year	SmartGrowth Secretariat (p), all other partners (S)(C)	Yes
Revise Regional Policy Statement to support Settlement Pattern and implement new NPS requirements (including addressing natural hazard and resilience issues)	0–2 years	BOPRC (A) (C), all other partners (S)	No

Key moves	Expected timing	Involved agencies (indicative PASCI)	Committed (Y/N/partial)
Review District Plans giving effect to RPS changes	2–5 years	TCC (A), WBOPDC (A), BOPRC (S),	No
Consider the use of different planning tools to speed up land use planning change processes	0–1 year	TCC (A), WBOPDC (A), BOPRC (A), all other partners (I)	Yes
Investigate and introduce economic instruments to influence travel choice (parking policies, tolling, congestion charging, freight mode choices). Parking policy changes to commence 2021 as per the Te Papa business case.	0–10 years	Waka Kotahi (A) (C), TCC (A) (C), BOPRC (A) (C), WBOPDC (S), tangata whenua (S), TSP (P)	No
Update sub-regional economic development strategy and implement	1–10 years	P1 (P), WBOPDC (S) (C), TCC (S) (C), all other partners (S)	Yes
Complete and implement a seasonal workers accommodation and transport action plan	1–3 years	P1 (P), WBOPDC (A), BOPRC (A for transport)	No
Investigate, and if appropriate, establish sub-regional urban development entity to co-ordinate delivery of regeneration activities, including facilitating private investment	1–5 years	TCC (A), Kainga Ora (S), all other partners (I)	No
Consider the use of different planning tools to speed up land use planning change processes	0–1 year	TCC (A), WBOPDC (A), BOPRC (A), all other partners (I)	Yes

Portfolio management, funding, and financing package

Funding and financing package			
UFTI benefits Housing, movement, environment, prosperity		**Broader outcomes** Improved liveability/place making/amenities, attractive and thriving sub-region, supporting growth, increased safety (transport and personal), better travel choices, improved modal shift, improved housing affordability	
Key moves	**Expected timing**	**Involved agencies (indicative PASCI)**	**Committed (Y/N/partial)**
Update and revise UFTI economic case based on business cases and more detailed evaluation of wider economic benefits etc in accordance with the Waka Kotahi Economic Evaluation Model.	1-3 years	SmartGrowth Secretariat (P), Waka Kotahi (C), all other partners (S)	No
Develop an outcomes based portfolio management approach including reporting system for the SmartGrowth Leadership Group	1-3 years	SmartGrowth Secretariat (A), TSP (P), all other partners (S)	No
Investigate the suitability of new funding instruments such as PPPs or Regulatory Asset Base for specific UFTI projects and the governance and business systems required to procure and participate in managing complex alternative procurement methodologies[32]	1-3 years	TSP (P), SmartGrowth Secretariat (A), all other partners (S)	No

[32] New sources of funding and different mechanisms for financing infrastructure will be necessary to deliver the UFTI programme and manage the consequences of growth.

Operational considerations

In planning implementation of a complex programme such as UFTI, there are several operational considerations that typically form part of a management case, where little detail is available at the Programme Business Case level. These considerations are set out below with initial thinking of how they will be refined through further stages of implementation

High-level consenting strategy

Many of the initial projects that form part of the programme (e.g., Intensification Plan Change, Tauriko West Structure Plan, consenting of the Tauranga Northern Link) are urgently necessary to enable delivery of housing supply for the sub-region. The partners are actively investigating use of enhanced RMA planning processes such as Boards of Inquiry, Direct Referral or Ministerial call-ins to speed up the delivery of decisions on these critical pieces of infrastructure. Where these methods are to be used, the partners commit to best practice approaches to pre-engagement such as those already undertaken for the Te Papa Spatial Planning Framework or UFTI. These engagement processes will ensure that community stakeholders remain active in planning decisions at an appropriate level.

Operational planning

Activity Management Plans for the transport system will use the UFTI programme business case as a key part of their strategic context (effectively the strategic case). As they are updated, consideration will be given to how best align delivery of the AMPs with the key directions created via UFTI.

Cost management

As part of its portfolio governance role, SmartGrowth will track partner expenditure across the programme and report 6-monthly (in line with Annual and Long term plan, and the Regional Land Transport Plan) on implementation status. When relevant information becomes available or the detail of the programme is amended as a consequence of more detailed business cases or other new information SmartGrowth will update the cost and benefit estimates for implementation of the entire portfolio. Individual partners will be responsible for managing their cost control processes for individual projects and business cases that they are delivering under UFTI. Their internal processes will be governed as per normal dealings with Waka Kotahi.

Stakeholder engagement

SmartGrowth has a strong stakeholder engagement model based around special interest forums. These forums have played a critical role to date in finalising the UFTI programme business case and will continue to be engaged via SmartGrowth. For individual projects, the accountable agency will lead stakeholder engagement. This will follow standard engagement practices. The co-ordinating bodies for each discipline will provide opportunities for stakeholder engagement at an appropriate level for their function. It is noted that many of those co-ordinating bodies (e.g., the Passenger Transport Committee or the Regional Transport Committee) are statutory committees with their own stakeholder engagement approaches and processes that must be followed.

Change control and issues management

The role of the co-ordinating bodies in the governance structure, such as the Tauranga System Plan, is to track evolving project scope and issues management. In most instances the accountability will lie with the relevant lead agency to track costs and scope issues and manage them without needing to escalate. However, if escalation occurs and the co-ordinating body cannot resolve the issue, it will be escalated to SmartGrowth as the portfolio governance entity for resolution across all the partners.

Decisions to escalate will be guided by the relevant organisation's significance policy. For example, the Regional Transport Committee's significance policy is available from the Bay of Plenty Regional Council at https://cdn.boprc.govt.nz/media/760427/bay-of-plenty-regional-land-transport-plan-2018-web.pdf - see pages 107-108, and at https://www.boprc.govt.nz/media/796614/regional-public-transport-plan-2018-variation-1-v11-pdf-1.pdf – see page 49.

Lessons learnt

SmartGrowth will—as part of its annual reporting cycle in its portfolio governance role—track, and report on the findings of lessons learnt exercises conducted by the individual partner agencies.

Benefit realisation and KPIs

SmartGrowth is the accountable entity for monitoring and reporting on benefit realisation and KPIs (Table 13), via an annual reporting cycle. This reporting framework will provide a mix of outcome-based reporting built around these benefits and KPIs, and output reporting for key projects. The measures will be collected by the relevant partner organisation (e.g., PT data from Bay of Plenty Regional Council, network performance data from Waka Kotahi, etc.), but compiled and published by SmartGrowth in a single report on an annual basis.

Table 14: UFTI key performance and measures for ongoing monitoring and benefits realisation

UFTI benefits	UFTI investment objectives	UFTI key performance indicators
Housing We have the housing we need and can afford	Housing affordability (as measured by the ratio of median gross (before tax) annual household income to the median dwelling house price/rent) in the western Bay of Plenty sub-region is increasingly better than the national New Zealand average by 2070	**KPI:** Infrastructure costs per new dwelling/business as a proportion of the property costs compared to national average ⇨ **KPI:** % of households with housing costs greater than 30% of income ⇧ **KPI:** Proportion of average household income spent on transport ⇨
Movement We can move and enjoy our live, learn, work, and play lifestyle	Proportion of population living within travel thresholds (15, 30, 45 minutes) of key social and economic opportunities (including education, health care, supermarkets etc.) by different modes (walking, cycling, public transport, vehicles)	**KPI:** % of jobs that are accessible within a 30–45-minute travel threshold by private vehicles (currently 80%; 2070 ~67%), PT (currently 22%; 2070 ~58%) ⇧, and cycle ⇧, in morning peak **KPI:** Percentage of people living in an urban area within 500 metres of frequent PT services (≤ 15–10 minutes) ⇧ **KPI:** Number of DSIs and FSI crashes within western Bay of Plenty sub-region by mode ⇩
Environment The quality of our environment is improving	Transport related greenhouse gas emissions in the western Bay of Plenty sub-region reach net zero by 2050 and maintain this level into the future	**KPI:** Tonnes of harmful emissions emitted per year from transport ⇩ **KPI:** Mode share for people (% of travel by SOV / HOV / PT / Active modes) in AM peak period ⇧
Prosperity Our economic productivity and prosperity are improving for all	The efficiency and effectiveness of the core freight network (road and rail tonnes per km) in	**KPI:** Predictability of interpeak travel times on freight priority journeys ⇨ **KPI:** Mode share of domestic freight (% of freight moved by, rail, and coastal shipping) ⇧

UFTI benefits	UFTI investment objectives	UFTI key performance indicators
	the western Bay of Plenty sub-region is maintained	

Secondary key performance indicators

- Percentage of people with access to essential services (shopping, education, health, recreation) by mode ⇧
- Number of passenger boardings using urban western Bay of Plenty public transport services ⇧
- Area of greenspace in urban areas per capita in the western Bay of Plenty sub-region ⇧
- Proportion of residential properties in urban areas that have publicly accessible park, reserves, and/or the coastal marine area within 400 metres walking distance ⇨
- Average dwelling densities (intensification and new growth areas) in the sub-region ⇧
- Change in housing typology in the sub-region (type, # of the bedrooms, m2)
- Average and median household income (gross) in western Bay of Plenty ⇧
- Average housing/rent prices
- Percentage of people who say it is 'very easy' or 'easy' to get to their nearest greenspace ⇧
- Number of clients on Kāinga Ora housing waiting lists ⇩
- Number of people in various forms of emergency housing ⇩

Other measures

- Noise levels associated with transport in urban areas
- Number of affected travel hours that key routes (as defined by the WBoP transport journeys: strategic functions) are interrupted
- Percentage of key routes (as defined by the WBoP transport journeys: strategic functions) are unavailable due to resilience events
- Area of LUC 1, 2, 3 land in the western Bay of Plenty sub-region lost to urban development
- Other indicators and measures related to the UFTI benefits could be applicable and be included

Through SmartGrowth and existing bodies such as the Regional Land Transport Committee, the KPI and measures will be regularly monitored. As a first action SmartGrowth Leadership Group will develop a plan for how these measures will be monitored and reported.

Managing uncertainties

COVID-19 has demonstrated to us all that no plan is certain. Circumstances can change dramatically through factors over which the partners have no control. In the context of a long term strategy such as UFTI, it is critical that the portfolio governance entity (in this case, SmartGrowth) is tracking changes in the operating environment constantly and speeding up or slowing down implementation as appropriate based on analysis of indicators and KPIs, including those published in this report. In most cases, these changes will not cause the goal or vision to change—that is however, possible, but should be done only with careful consideration.

In the case of COVID-19, the data does not yet suggest that the western Bay of Plenty will not continue to grow as projected, although growth may slow temporarily as immigration is restricted and economic activity slows. This will create a mix of short-term funding issues for the partners, but also potentially breathing space that allows the delivery of some interventions to be slowed. At this stage, it is an example of a change in the operating environment that does not affect the long-term vision but will impact on the speed of implementation.

SmartGrowth will be the entity accountable for tracking changes in the operating environment through monitoring of key indicators and KPIs as well as environmental scans and reporting annually on any changes in delivery of the strategy or the vision that the partners agree may be required.

SmartGrowth will do this by tracking the measures associated with the Connected Centres programme and maintaining an assumptions and uncertainties log that tracks any changes to the operating environment that affects the validity of the assumptions, or clarifies our understanding of the uncertainties. The current assumptions included in the Connected Communities programme are described in the uncertainties log in Table 15.

Table 15: UFTI assumptions and uncertainties

Uncertainty	Extent and mitigation
Population growth	A planning scenario of 400,000 population with an additional 95–100,000 dwellings (35,000 dwellings in the next 30 years, and 62,000 thereafter is used for UFTI. This scenario is based on the upper extent of NIDEA population forecasts for the western Bay of Plenty sub-region. There are many factors that influence population growth and given the significant population growth in this scenario (approximately 131,000 more people), there is a high degree of uncertainty associated. The inherent uncertainty in population forecasting cannot be removed, but it can be managed to a more acceptable degree of uncertainty. For nearer term planning and projects, the NIDEA 30-year population forecast

Uncertainty	Extent and mitigation
	is used. These forecasts are based on an agreed methodology. To help manage the uncertainties, the NIDEA forecasts are reviewed regularly and adjusted as new information arises—such as Census data or similar. Programmes and plans, such as the Long-Term Plan, 30-year infrastructure plans and other nearer term initiatives, use the NIDEA population forecasts.
UFTI cost estimates	Rough order costs have been generated relating to both capital and operational costs for the purpose of estimating a benefit cost ratio. The costs for the Connected Centres programme have been estimated by calculating high-level 'typical costs' benchmarked against the actual cost of activities that have been built or are in service. These are a guide only as comparisons between options. As each package of work moves into more detailed planning, revised cost estimates will be developed that are increasingly more accurate based on the designs at hand. As the costs and economics are refined, the implementation plan can be updated.
Funding availability	Current funding sources will be inadequate to deliver the optimal programme. The SmartGrowth partners are working closely to identify alternative funding sources to enable implementation.
Additional harbour crossing	Additional dedicated lane capacity for public transport across Tauranga Harbour is included in the Connected Centres programme. The location of this additional crossing (and therefore other related details such as risk, feasibility, economics, statutory requirements, and so forth) will remain uncertain until further investigations and engagement with partners are completed.
Regulatory and constructability risks	Several of the Connected Centres programme elements rely on the predicted outcomes of RMA planning and other legal processes and an assumption that development can physically occur in some locations. Should a major growth node such as Te Tumu or Tauriko West or the intensification plan changes underway right now fail to go ahead for legal reasons or due to inability to develop land, the settlement pattern will be at risk and a full re-set of the plan may be required.
Airport location	We have assumed that Tauranga Airport will not move, or if it does move, that the land it occupies will be less suitable for urban-use due to sea level rise and liquefaction risks. Should a decision be made to move the airport

Uncertainty	Extent and mitigation
	and the risks of sea level rise and liquefaction be manageable, the Joint Spatial Plan would need to be reviewed—as such a move would create significant opportunities to reshape growth of the City.
Development aspirations for Māori-owned Land	Significant development potential for housing or jobs exists in Māori-owned land in the sub-region or could emerge as treaty settlements are finalised. As yet, the development aspirations of these landowners are uncertain and so has not been factored into this programme development. There are potentially significant social, economic, and cultural benefits if this land is sensitively developed. In other parts of the country, the urbanisation of Māori-owned land by its owners has prompted significant co-investment from government to enable those aspirations and to improve the wellbeing of the treaty partners. The settlement pattern will therefore need to be refined as Māori landowners determine their aspirations. The proposed Iwi Spatial Layer for the Joint Spatial Plan will provide an instrument to facilitate the necessary partnership conversations between central and local government and Māori landowners.
Achievable levels of intensification	The optimal programme assumes a significant level of intensification within the existing urban area to achieve an average of 30 dwellings per hectare or more. This programme also assumes that significant areas of land on the Pāpāmoa Coast and around Bethlehem are restricted due to covenants, and in some places uncertainty exists regarding the best way of managing liquefaction hazards to comply with the Regional Policy Statement or the ability to access land for intensification. If either of these issues can be resolved, significantly greater intensification could be delivered, and less greenfield land required. The benefits of intensifying in these areas due to proximity to jobs and access via PT would be significantly better than has been assessed in the optimal programme. Likewise, the intensification goals represent a major change in practice for the city and may not occur to the level anticipated due to insufficiently enabling regulation, market issues, lack of land availability etc. If this occurs greater emphasis would be required on greenfield sites and associated additional capital expenditure beyond that identified in this programme. If the inability to deliver on the planned intensification levels is considered significant, government funding may be at risk, particularly if not aligned with government priorities. SmartGrowth must continue to monitor this evolving situation and consider reviewing the settlement pattern as circumstances change.

Uncertainty	Extent and mitigation
Delivery risk	The programme relies on coordinated actions and investment decisions by several different agencies working together over multiple planning and investment cycles. The whakataukī, *He Waka eke noa / the waka which we are all in with no exception*, applies. The SmartGrowth governance model is intended to manage this risk by providing a mechanism for regular review and alignment conversations.
Impact of technology	Technology is evolving rapidly. It is likely that over time, new technologies will impact on how we move people and the degree to which people still need to move around the city to work. From a transport perspective, people will still need transport corridors to move along – and the strategic function of those corridors is unlikely to change regardless of mode. UFTI has tried to be mode neutral to accommodate these sort of technology changes. Changes that result in less travel, such as more working from home, could reduce demand. Careful monitoring of demand and an adaptive approach to implementation is going to be critical to ensure investments are sped up or delayed as demand changes.
Ability to achieve self-containment	The settlement pattern has adopted the SmartGrowth philosophy of self-containment. This means we aim to achieve 50% of all trips within a community. This assumption relies on local schools, community facilities and jobs for many of the residents. If people continue to choose to live a longer distance from their work or suitable community facilities are not available this self-containment target will not be achieved, and vehicle kilometres travelled on the network will continue to be high. SmartGrowth partners will need to monitor trends and determine what other actions are required to achieve self-containment.
Changes in government policy (e.g. transport, water etc), unique funding constraint's or global events (pandemics) may require change or re-prioritisation.	The purpose of the SmartGrowth Leadership Group's portfolio management role is to track these changes using the KPIs and Indicators in this report. Adjustments to the programme, particularly in terms of timing are inevitable. The role of the SLG (and other groups) is to make these adjustments and refine the strategy to meet changing circumstances – but without changing the goal or vision that is set out in the description of the Connected Centres Programme. If this vision requires changing because the changes are of such magnitude that the envisioned future is no longer attainable SmartGrowth will need to review the programme in its entirety.

Summary – UFTI implementation first steps

Delivery of the Connected Centres Programme will require multiple agencies to work together. The programme identified above contains a range of key moves that will need to be programmed in Long Term Plans, the Regional Land Transport Plans, and National Land Transport Programmes to occur over the next 0-1, 1-3, 4-10, 10-30 and beyond 30 year timeframes. Within those packages there are some actions that because of their complexity or priority in terms of sequencing should be the primary focus of the SmartGrowth Leadership Group in its role as Portfolio Manager.

These "first step" actions should be prioritised as a co-ordinated programme within the first twelve months of implementation and reported on to the SmartGrowth Leadership Group:

Planning actions

1. Complete the preparation of the Joint Spatial Plan incorporating the UFTI settlement pattern and including public engagement and development of an Iwi spatial planning layer
2. Complete the Transport System Operating Framework to confirm priorities for the 2021-31 NLTP and Long Term Plan(s)
3. Progress the Housing Choice Plan change
4. Complete Tauriko Network Improvements business case to support multi modal and freight outcomes and Housing
5. Complete Te Papa Business Case and spatial framework.

Housing delivery actions

1. Establish a co-ordinating body to support affordable housing initiatives that involve both public sector and non-government organisations to develop an Affordable Housing Action Plan
2. Initial implementation actions to enable release of land for housing in Tauriko West (Tauriko Early Works Transport Investments) and Wairakei/Te Tumu (resolve land access issues)

Transport delivery actions

1. Begin adjusting public transport services to support frequent public transport on the identified key journeys/routes

2. Implement Tauranga's walking and cycling network
3. Start constructing the Tauranga Northern Link
4. Begin implementing Cameron Road multimodal improvements
5. Begin implementing Turret Rd and 15th Ave multimodal improvements
6. Commence behaviour change programme to support mode shift in particular

Economic growth delivery actions

1. Deliver network optimisation actions for freight access to port and multi modal outcomes on Hewletts Rd
2. Progress construction of Rangiuru Interchange for economic development, road/rail integration, and freight access outcomes

Getting a quick start on these first steps will be critical to move from the planning phase of UFTI to the delivery phases and establish the foundations of the Connected Centres programme necessary to start realising the UFTI benefits.

Part 5: UFTI Technical inputs and appendices

Content to prepared will include:

1. UFTI Collaboration Principles
2. Western Bay of Plenty strategic transport journeys: strategic functions
3. Transport modelling report
4. UFTI Partners Planning Assessment summary
5. UFTI Implementation principles
6. Economic assessment report
7. Financial analysis report

The UFTI reports are available at https://ufti.org.nz/reports/. Any requests for additional information and analysis, should be provided to Tauranga City Council, as the SmartGrowth Administration Authority.

UFTI COLLABORATION PRINCIPLES

Our partnership principles that guide how we should interact:

1. Participate in the project in good faith
2. Recognise the Treaty of Waitangi principles and work with all partners and ensure active tangata whenua engagement and participation
3. Recognise the need to examine existing policies and strategies where necessary
4. Work collaboratively including with community stakeholder groups to deliver on the project objectives
5. Partners are held accountable to deliver results
6. Make available relevant information as required
7. Contribute staff time as required to complete the project successfully
8. Communicate externally in partnership through UFTI
9. Acknowledge sensitivities and release information publicly only when agreed
10. Open, frank, yet respectful, communication with no surprises—both at staff and governance level
11. Commitment by governance/partners to develop and deliver shared solutions and actions together.

Our protocol principles that guide how we work:

1. Build from past work and develop solutions iteratively
2. Undertaken strategic analysis appropriate to the issues being considered
3. Recommend decisions based on agreed evidence and processes
4. Deliver in close partnership between the parties
5. Drive collaboration between connected projects and UFTI sub-teams
6. Appropriate community and stakeholder engagement in UFTI development
7. Seek stakeholder and community support—keep informed and seek input at appropriate times

8. Build shared understanding and agreement
9. Escalate issues to decision makers where agreement is not able to be achieved.

Our solution principles that guide how we make decisions:

These are based on the SmartGrowth Partnership principles developed in 2001. They include:

1. Underlying principles from the SmartGrowth Partnership
    a. Live, learn, work and play being a balanced approach to management of growth
    b. Integrated planning for the long term
    c. Evidence based
    d. Partnership through collaboration, trust, and mutual respect
2. Deliver on the project's objectives
3. Align to the Government's urban growth and transport agenda, while tailoring solutions to reflect the western Bay of Plenty's unique situation
4. Be ambitious and aspirational while also realistic
5. Develop future-proofed and adaptable solutions
6. Challenge existing thinking and group think culture