Welcome Bay and Ohauiti Planning Study 2020

Tauranga City

City Planning Team

Welcome Bay and Ohauiti Planning Study 2020

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Executive summary

The purpose of the Welcome Bay and Ohauiti Planning Study 2020 (Study) was to better understand the infrastructure needs, options and costs to accommodate additional housing growth within the Welcome Bay and Ohauiti area.

This involved identifying sub-precincts of the Study Area that may be suitable for additional housing development and assessing the capacity of services and infrastructure to accommodate additional demand under three population growth scenarios (business as usual, moderate and high growth).

The extent of the Study Area is shown in Figure 1 below. The seven sub-precincts identified as potentially feasible for additional residential development are shown in Figure 2, marked as "Area 1" to "Area 7".

Figure 1: Study Area



Infrastructure modelling and assessments were undertaken for:

- § Three waters services (water supply, wastewater and stormwater);
- § Transport infrastructure;
- § Community and education facilities; and
- § Commercial centre development.

The modelling and assessments identified that while there are some capacity issues, there are no fatal flaws to delivering many of the upgrades that would support additional housing capacity. However, the Study ultimately found that accommodating the medium and high growth housing scenarios in the Study Area would be unfeasible, except in the Upper Ohauiti urban growth area (Upper Ohauiti) (Figures 2 - 4).

This conclusion largely derives from the costs of developing road infrastructure to cope with additional traffic generation. Existing traffic congestion in the Welcome Bay Road area, which includes buses using Welcome Bay Road, would be worsened in the medium and high growth scenarios.

The potential development of a new east-west link road across the Study Area to connect Welcome Bay through Poike towards Greerton was assessed and estimated to cost between \$125M to \$241M, with a \$276M 95% risk-adjusted maximum cost. The cost estimate was developed at a high level with significant uncertainties. As such, it likely represents a fatal flaw to enabling significant additional housing capacity.



Figure 2: Sub-precincts with feasible additional housing capacity

Figure 3: Extent of Upper Ohauiti urban growth area in Tauranga City boundaries



The Bay of Plenty Regional Policy Statement (RPS) and the SmartGrowth Settlement Pattern 2013 identify Upper Ohauiti as a future urban growth area. It is within the current urban limits set by the RPS. The RPS indicatively provides for Upper Ohauiti to be structure planned after 2021 and for development to commence from 2026. Therefore, structure planning investigations for Upper Ohauiti are recommended to be progressed through the forthcoming City Plan Review project, in line with the RPS sequencing.

The other recommendations arising from the Study are to continue planning and investment to support the existing Welcome Bay and Ohauiti communities, while also commencing investigations and engagement around development options through the City Plan Review.



Figure 4: Extent of Upper Ohauiti urban growth area (Bay of Plenty RPS)

It is noted that the Welcome Bay South/Kaitemako (Kaitemako) urban growth area adjacent to the east of Upper Ohauiti is also in the RPS urban limits and is also subject to similar sequencing for planning and development. Council staff did not recommend Kaitemako to be progressed to structure planning investigations similarly to Upper Ohauiti because Kaitemako is reliant on Kaitemako Road and Welcome Bay Road for access and egress. There is no northern route from Kaitemako because Kaitemako Road ends a few kilometres north of the municipal boundary, without connecting to the wider road network. As such:

- § The development of Kaitemako for additional housing would direct more traffic onto Welcome Bay Road. This would increase the existing traffic congestion. It would be an undesirable outcome, given Welcome Bay Road is already performing below a desirable standard; and
- § Council's resilience project has identified Welcome Bay Road and the associated three waters infrastructure as being vulnerable to numerous natural hazards. Kaitemako would be serviced by extending infrastructure from Welcome Bay Road along Kaitemako Road. Therefore, enabling additional housing capacity in Kaitemako would increase the size of the community that is reliant on vulnerable infrastructure.

Similarly, if the other feasible sub-precincts in the Study Area (see Figure 2 above) were developed, they would rely heavily on Welcome Bay Road as a primary transport and utilities corridor. Therefore, it is not recommended to progress additional housing development and population growth in those areas at this time.

Recommendations

The recommendations arising from the Study are:

- (a) Do not proceed with structure planning for additional urban development in the Welcome Bay area because of transport constraints and costs;
- (b) Subject to positive outcomes of discussions with relevant landowners and preliminary structure planning investigations, approve completion of a structure plan and rezoning of the Upper Ohauiti growth area that is within the current Tauranga City boundary through the Tauranga City Plan Review project;
- (c) Commence engagement with Māori Land Trusts in the Study Area in relation to future land use options as part of the Tauranga City Plan Review project;
- (d) Examine options to improve transport choice, connectivity and support predictable travel times in the Study Area through the Transport System Plan and structure planning of Upper Ohauiti;
- (e) Seek to address the undersupply of commercial land in the Study Area through the Tauranga City Plan Review project;
- (f) Continue working with the Ministry of Education on planning for a new primary school in the Ohauiti area;
- (g) Continue to advocate to the Ministry of Education for better year 7-13 schooling options within the Study Area to reduce pressure on the transport network at peak periods, noting that the Ministry of Education has other priorities for secondary schooling and is not currently planning for a secondary school in the Study Area;
- (h) Continue to investigate the provision of new sportsfields in Ohauiti to meet existing demand; and
- (i) Investigate options for the upgrade or redevelopment of the Welcome Bay Community Hall and Centre as part of the Community Facilities Investment Plan being prepared for Council's Long Term Plan 2021 - 2031 and 30 Year Infrastructure Strategy with a view to future improvement of this facility, potentially around 2030.

Purpose

The Welcome Bay and Ohauiti areas are currently facing a range of issues including:

- § Traffic congestion;
- § Lack of education options;
- § Lack of retail and commercial provision;
- § Infrastructure capacity constraints; and
- § Pressure from developers to enable additional development.

After the Adler Drive Special Housing Area (SHA) was approved, there were a number of enquiries in 2017 about developing additional housing in the Study Area under the (now repealed) Housing Accords and Special Housing Areas Act 2013. Those enquiries did not proceed to the lodgement of formal applications for the establishment of SHAs, because it was not shown that sufficient supporting infrastructure would be provided under Section 34(2) of that Act¹.

As such, the purpose of the Study was to better understand the needs, options and costs to provide infrastructure and facilities to accommodate additional housing in the area shown in Figure 1 (Study Area) and whether this was feasible. It was considered necessary to clarify the degree to which additional housing development would spread infrastructure costs across a wider population base, thereby improving the business case (via development contributions) for Council projects in the Study Area.

This involved assessing land in the Rural and Rural Residential zones in the Study Area to identify the land that may have feasible housing development capacity.

The methodology for assessing land feasibility and the housing growth scenarios that were considered is described in a later section of this report, headed "Methodology for assessing feasible housing capacity".

The key workstreams in the Study included:

- § Development/land use: Identification of areas suitable for further development both in the immediate and long term;
- § Infrastructure: Investigation of servicing issues, opportunities and costs covering three water supply, wastewater, stormwater and transportation;
- § Community infrastructure: Investigation of community and recreational facilities and infrastructure needs such as open space, schools and community facilities; and
- § Commercial: Investigation of the appropriate size, location and scale of commercial centres for each catchment.

¹ The areas that were enquired about as possible Special Housing Areas were Upper Ohauiti, which is a future growth area in the RPS (Area 1 in Fig. 2 above and shown more clearly in Figure 3 above), Eagle Street, which is now consented for development (Area 3 in Fig. 2 above) and Waikete Road, which is outside Council's boundary but which would rely on connections to infrastructure in the City (Area 7 in Fig. 2 above).

Background and Context

Tauranga City

Tauranga is New Zealand's fifth-largest city by population, with 136,713 people at the 2018 census. However, it is one of the smallest local government areas by area, being 135km² or 13,440 hectares in area. The City has experienced sustained population growth as follows:

- § 2006 2013: The 2013 census recorded population growth from 103,881 to 114,789 (10,908 additional people or 10.5%). This was the sixth fastest growth rate nationally.
- § 2013 2018: Growth from 114,789 to 136,713 (21,924 additional people, or 19.1%). This is significantly higher than the nation-wide average growth rate of 10.8% over the same period.

The figure below shows population growth rates between the 2013 and 2018 censuses. The Study Area experienced varied growth. Four of the six the census area units in the Study Area had growth of >10%.



Figure 5: Population growth rates 2013-2018 (source: StatsNZ)

Projections indicate that Tauranga's population will increase to about 213,650 people in mid-2063, an increase of 72,850 people over 45 years. This is equivalent to an increase of 1,619 people annually, which broadly equates to projected yearly demand for some 764 additional dwellings.



Figure 6: Population growth to 2063 (source: Tauranga City Statistical Information Report August 2020)

Tauranga's population growth has accelerated the community's demand for housing. Housing supply has not matched demand, partly due to the limited amount of developable land. The imbalance between demand and supply has raised house sale prices and rental costs. The 128% growth in Tauranga's median household income between 1991 and 2017 did not keep pace with a doubling of median rents and a 464% increase in median house prices during the same period.

Figure 7: Median house price, median rents and median gross household incomes - 1991 to 2017 (source: Housing Demand and Need in Tauranga and Western Bay of Plenty)

		Median sale price, rents and household income						% change 1991 to 2017	
	Mar-91	Mar-96	Mar-01	Mar-06	Mar-13	Mar-17	Total %	Annual Ave	
House prices									
Tauranga City	\$110,000	\$165,000	\$197,000	\$366,000	\$381,000	\$620,000	464%	6.9%	
Western BOP	\$110,000	\$135,000	\$184,000	\$350,000	\$349,000	\$550,000	400%	6.4%	
House rents									
Tauranga City	\$140	\$195	\$200	\$280	\$340	\$420	200%	4.3%	
Western BOP	\$120	\$160	\$175	\$230	\$280	\$371	209%	4.4%	
Household incomes									
Tauranga City	\$28,600	\$29,900	\$33,300	\$45,500	\$55,800	\$65,300	128%	3.2%	
Western BOP	\$27,000	\$30,400	\$35,500	\$46,800	\$55,600	\$65,000	141%	3.4%	

Source: MBIE & Statistics New Zealand

The modelled incidence of housing stress has risen with median housing costs. For rental housing, the figure below shows "renter housing stress", which consists of the households paying >30% of gross annual income in rent in Tauranga and the WBoP between 2001 and 2013. Housing stress is most evident in households with annual incomes of <\$30,000 in both modelled years.

In 2001 housing stress was not widespread among households with annual incomes of \$30,000 - \$50,000 and \$50,000 - \$70,000. However, this had changed by 2013, when housing stress presented in both cohorts and especially in the \$30,000 - \$50,000 annual income cohort.

The figure below indicates that between 2001 and 2013, the incidence of renter housing stress in the \$30,000 - \$50,000 annual income cohort increased from 12% to 81%. During that period, the incidence of renter housing stress increased from 1% to 30% in the \$50,000 - \$70,000 annual income cohort.



Figure 8: Rental housing stress (source: Housing Demand and Need in Tauranga and Western Bay of Plenty)

TCC - 2001 TCC - 2013 NWBOP - 2001 WBOP - 2013

The median rental price in Tauranga has been higher than the national median at each of the 2006, 2013 and 2018 censuses, as shown below.

Figure 9: Median rent comparisons 2006 - 2018 (source: StatsNZ)



Median weekly rent paid by households in Tauranga City and New Zealand, 2006–18 Censuses

A sizeable portion of the community (in the order of 16,000 households) experiences rental housing stress or housing affordability issues in being unable to purchase a dwelling at lower-quartile house sale prices. 58% of renters and 21% of <u>all</u> households in the City were modelled as having experienced housing stress in 2017². Numerous households are accommodated in social housing, emergency housing or face homelessness. The 2017 modelled housing continuum for Tauranga and WBoP is below.

² Housing Demand and Need in Tauranga and Western Bay of Plenty, Table 1.4: Total housing need as at 2017.

Figure 10: Modelled housing continuum 2017 (source: Figure 4.3 Housing Demand and Need in Tauranga and Western Bay of Plenty)



Study Area overview

Location and configuration

The Study Area encompasses the suburbs of Ohauiti and Welcome Bay. It extends from the landward side of Welcome Bay – Rangataua Bay in the north to the boundary between the City and the Western Bay of Plenty district (WBoP) at Kaitemako – Ohauiti - Pukemapu Roads in the south. The western extent of the Study Area is generally aligned with State Highway 29A and Hollister Lane, while the eastern extent is demarcated by Ngapeke Road and the Tauranga City boundary east of Waikete Road.

The Study Area is hilly, with catchments in steep country in the south (around the southern Tauranga City boundary) draining towards the harbour in the north via gullies.

The topography means that the only east-west connections are Poike Road and Welcome Bay Road. The transport network is based on collector roads running north atop on primary ridgelines towards SH29A or Welcome Bay Road, with many local roads providing access from the collector roads to low-density residential development developed in a staggered pattern down the sides of the ridges.

The zoning pattern consists of urban zonings in the northern two-thirds of the Study Area, mostly the Suburban Residential Zone, with some Active and Passive Open Space zones and a small area of Commercial Zone. The southern part of the Study Area is mostly in the Rural Residential Zone and Rural Zone extending to the City boundary with the WBoP district. The Greenbelt Zone applies to the north-to-south gullies, interspersed with the Passive Open Space zone.

Land use

The land uses in the Study Area are characterised by:

§ Single and double storey detached dwellings on lots of approximately 500m² to 800m² in the Suburban Residential Zone. This is the predominant land use in the Study Area given the large extent that zone. Infill development (mainly rear access lots) has occurred where site characteristics (site size, dwelling location, slope) permit.

- § Reserves, sportsfields and open space in the Active and Passive Open Space zones and Conservation Zone;
- § Grazing and horticultural activities and ancillary dwellings in the Rural Zone;
- § Green corridors of privately-owned land providing for primary production and ancillary dwellings in the Greenbelt Zone;
- § Residential activities on lots of generally 2,000m² with an average area of 3,000m² in the Rural Residential Zone;
- § The transport network, consisting of ridgetop collector roads and supplementary local roads;
- § Dispersed commercial activities, in the north of the Study Area along Welcome Bay Road (primarily at 252 Welcome Bay Road) and a smaller area of Commercial Zone near the Poike Road – Ohauiti Road intersection; and
- § Other activities such as utility reserves/corridors, childcare facilities and primary schools.

Land Tenure

Most of the Study Area is in general title. However, significant areas are Māori land with multiple owners (highlighted with yellow in the figure below) around Kaitemako Road and Ranginui Road.



Figure 11: Māori land parcels in Study Area

Council parks and reserves in the Study Area include Waipuna, Owens, Tye, Jonathan Brown, Selwyn, and Ila Parks and Johnson, Waitaha, Te Auhi and Ohauiti Reserves. Council facilities include the Welcome Bay Community Centre, sportsfields and associated facilities, public toilets, playgrounds,

walkways and bicycle tracks. Council also owns land in the Conservation Zone that contains waterways and overland flow paths.

Study Area population information

At the 2018 census, the Study Area population was approximately 16,500 people, with a dwelling count of 6,322 established dwellings. By 2063, with business as usual population growth and residential development within the existing urban zone extents, modelling indicates that the Study Area population will increase to approximately 17,180 people and the dwelling count will increase by 1,347 to provide a total of approximately 7,669 dwellings. The low increase in population compared to the number of additional dwellings built by 2063 occurs because household size is projected to decrease over time.

The findings of Vital Update community surveys were released in mid-2020. Relevantly, the surveys recorded feedback from respondents in two survey areas around Welcome Bay, Hairini, Maungatapu and in Poike, Oropi, Greerton and Ohauiti, as shown in the figure below.



Figure 12: Vital Update survey areas

The Vital Update surveys yielded the following relevant information:

§ 2% (Poike, Oropi, Greerton and Ohauiti) and 3% (Welcome Bay, Hairini and Maungatapu) of respondents described their housing situation as "homeless/under housing stress". This compares to a 3% average response to this question across Tauranga³.

The top four responses to "What people love the most about living in [survey area]" were:

- § Handy to malls/cafés/shops/amenities/schools/work.
- § Safe/peaceful.
- § Friendly neighbourhood/community feel.
- § Close to parks/cycleways/walkways/reserves.

The top four replies to "What is one thing people would change about [survey area]" were:

- § Less traffic congestion.
- § More cafés/supermarkets/community hubs/facilities/services.
- § Better roading solutions/fix the roads/speeding.
- § Reduce antisocial behaviour/social issues/crimes/racism.

³ "Homelessness" comprises various arrangements: living on the street (approximately 8%), living in a caravan/campervan (7%), living in a garage (1%), temporary accommodation (41%), boarding (33%) or other accommodation (15%).

The top four neighbourhood aspirations recorded by respondents were:

- § Better road infrastructure/less congestion.
- § More shops/cafés/restaurants/supermarkets/malls.
- § Better public transport options/light rail.
- § More community facilities/recreational opportunities for families/community events.

The top four responses regarding the "Services and facilities people want to have better access to in terms of distance" were:

- § Supermarket.
- § Local shops and retail.
- § Post office/bank.
- § Medical centres/health services.

Of the respondents, 75% indicated that they drive to work, slightly above the Tauranga average of 73%. Within Welcome Bay, Hairini and Maungatapu, 88% respondents reported driving as their main mode of transport around the City, compared to 82% of Poike, Greerton, Oropi and Ohauiti respondents and against the Tauranga average of 85%. The use of cycling to move around Tauranga was recorded by respondents in both survey areas at a rate of 9% compared to the Tauranga average of 6%.

Methodology for assessing feasible housing capacity

In June 2017 the City Transformation Committee supported the following Study workstreams:

- § Development and land use: Identify areas for further development or intensification;
- § Infrastructure: Investigate servicing issues, opportunities and costs related to three waters and transportation;
- § Community infrastructure: Investigate community infrastructure needs such as schools and community and recreational facilities; and,
- § Commercial: Investigate the feasible size, location and scale of future commercial centres.

Council is subject to obligations to enable adequate short term, medium term and long term feasible housing capacity under the National Policy Statement for Urban Development 2020 (NPS-UD). Despite the additional capacity that will be enabled by greenfield urban growth areas and urban intensification, short, medium term development capacity shortfalls for Tauranga were quantified in May 2019 through an independent assessment of housing capacity⁴.

Since that assessment the short term shortfall has fluctuated and decreased due to revisions to the 2018 census data and the effects of the COVID-19 virus. However, medium term and long term housing shortfalls are still projected.

The NPS-UD was⁵ a key statutory driver for the preparation of the Study. Its objectives and policies require local authorities to ensure sufficient "feasible" housing and business "development capacity" in the short term, medium term and long term, as indicated below.

Objective 6: Local authority decisions on urban development that affect urban environments are:

- a) integrated with infrastructure planning and funding decisions; and
- b) strategic over the medium term and long term; and
- *c) responsive, particularly in relation to proposals that would supply significant development capacity.*

Policy 2: Tier 1, 2, and 3 local authorities, at all times, provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term, medium term, and long term.

Given this Objective and Policy, the three NPS-UDC definitions below are especially relevant:

Development capacity means the capacity of land to be developed for housing or for business use, based on:

- (a) the zoning, objectives, policies, rules and overlays that apply in the relevant proposed and operative RMA planning documents; and
- (b) the provision of adequate development infrastructure to support the development of land for housing or business use.

⁴ Western Bay Sub-region, Residential Capacity Review, Veros Property Services, May 2019.

⁵ The NPS-UDC was operational during the Study but was replaced by the NPS-UD just before the Study was reported to UFTD. However, the broad directions of the NPS-UDC and NPS-UD are generally similar as they relate to the purpose of this report.

Development infrastructure means the following, to the extent they are controlled by a local authority or council controlled organisation (as defined in section 6 of the Local Government Act 2002):

- (a) network infrastructure for water supply, wastewater, or stormwater
- (b) land transport (as defined in section 5 of the Land Transport Management Act 2003)

Feasible means:

- (a) for the short term or medium term, commercially viable to a developer based on the current relationship between costs and revenue
- (b) for the long term, commercially viable to a developer based on the current relationship between costs and revenue, or on any reasonable adjustment to that relationship

In light of the NPS-UD provisions above and the purpose of the Study, the assessment of feasible housing development capacity centred around understanding if existing development infrastructure can support business as usual residential growth (in the existing urban zone extent), and, the extra infrastructure capacity that would be needed to enable additional housing development beyond the business as usual scenario.

Stage 1

Stage 1 consisted of a desktop analysis to identify the planning constraints for each site zoned Rural or Rural Residential in the Study Area. The factors considered in the assessment are set out in Table 1.

Feature	Trigger criteria		
Topography	Large areas of slope > 20 degrees		
	Large areas of slope > 2 to 1 fall		
Geotechnical	Multiple relic landslips		
Existing land use	Existing dwellings on the site		
	Irregular site shape		
City Plan Areas and Overlays	City Plan Areas and Overlays such as:		
	§ Significant Māori Areas		
	§ Special Ecological Areas		
	§ Significant Archaeological Sites		
	§ Designations		
	§ High Voltage Transmission Plan Area		
Soil contamination	Identified Hazardous Activities and Industries List (HAIL) site		
Existing land uses	Fully developed site		
Flooding hazards	Depth x velocity for 100-year event		
	Flood risk for 100-year event		
Land information	Consent notices, encumbrances and covenants		
Yield	Unlikely to yield > 4 allotments		

Table 1: Planning constraints identified

Stage 2

Using the desktop assessment of constraints, three development feasibility categories were prepared and mapped:

- § Green mapping: Likely suitable for development;
- § Orange mapping: Potentially suitable for development, but some constraints identified; and
- § Red mapping: Unlikely to support development.

A decimal number rating between 0.00 to 1.00 was allocated to each site, to represent the overall percentage of that property that was assessed as feasible for development.

On that basis, a green-mapped site was typically allocated a rating of 0.95 to 1.00, which would represent that 95% to 100% of the site could feasibly be developed. Sites mapped with orange were those allocated a rating between 0.3 (30%) and 0.95 (95%), implying the percentage of land that could feasibly be developed. Sites mapped with red were allocated a rating of 0. This mapping and numeric rating identified sites unsuitable for development due to the presence of too many constraints.

The developable area of each site was also calculated using the allocated rating. For example, a 0.5-hectare site with 70% developability would be rated 0.7 and mapped orange. The developable area of 3,500m² could be ascertained by multiplying the size of the site (5,000m²) by the rating (0.7).

Based on the criteria in Table 1 above, the development feasibility assessment identified seven subprecincts of the Study Area with feasible development potential. Those are shown in Figure 13 below.



Figure 13: Development feasibility assessment

Potential housing yield

The potential housing yields of each feasible sub-precinct shown below were calculated using a theoretical development density of 15 dwellings per hectare in line with the RPS density assumptions.

Location	Area	Tenure	Potential yield	Other information
Area 1: Ohauiti	45 ha	General land	675 dwellings	Comprises part of the Upper Ohauiti growth area
Area 2: Kaitemako Road	68 ha	61 ha Māori land 7 ha general land	1,020 dwellings	Could extend into WBoP, would connect to TCC services
Area 3: Eagle Street	3.6 ha	General land	54 dwellings	Subdivision consent granted for 21 allotments and reserves.
Area 4: Ranginui Road	50 ha	47 ha Māori land 3 ha general land	750 dwellings	-
Area 5: Welcome Bay – Ngapeke Road	42 ha	7 ha general land	630 dwellings	-
Area 6: Welcome Bay Road South	11 ha	General land	165 dwellings	-
Area 7: Waikite Road	10 ha	General land	150 dwellings	Proposed SHA site, located in WBoP, would connect to TCC services
TOTAL	~231 ha	123 ha general land 108 ha M ā ori land	3,465 dwellings	

Table 2: Feasible sub-precinct details

These assumptions were considered to be reasonable, given the high level nature of the feasibility assessment, which provided yield estimates for subsequent infrastructure capacity modelling.

Almost half of the land in the feasible sub-precincts is Māori land. The development of Māori land is subject to the Te Ture Whenua Māori Act 1993. That Act promotes the retention and use of Māori land to benefit owners, whānau and hapū.

Māori land is commonly in multiple ownership among shareholders. Shareholders wishing to build a dwelling or papakāinga on the land must gain permission from most of the other shareholders. Securing permission may require applications to the Māori Land Court for determination.

New allotments are not automatically created when subdivision consent is obtained in relation to Māori land. The creation of a new Māori land parcel/title also requires permission under the Te Ture Whenua Māori Act 1993. Furthermore, Māori land parcels cannot be brought or sold as freehold to the market.

Development of population growth scenarios

The table below shows the three population growth scenarios used to inform infrastructure capacity modelling.

Scenario	2018 dwelling count	2063 dwelling count	Increase
Scenario 1:	6,322	7,669	1,347
Business as usual growth			
Scenario 2:	6,322	9,459	3,137
Moderate growth			
Scenario 2:	6,322	11,062	4,740
High growth			

Table 3: Development capacity in each growth scenario

The business as usual scenario (Scenario 1) represents a situation where residential development continues within the current urban zoned extent of the Study Area and no additional land is rezoned for urban development. This would limit the housing yield that that which could be gained from continued infill development in the Suburban Residential Zone.

The medium growth scenario (Scenario 2) consists of the capacity provided by Scenario 1 plus the rezoning of approximately 120 hectares of Rural and Rural Residential zoned land held in general title to urban zones.

The high growth scenario (Scenario 3) takes the capacity provided by Scenario 2 and adds the additional capacity that would be gained by rezoning approximately 108.8 hectares of multiply owned Māori land currently in the Rural and Rural Residential zones to urban zones.

This approach was taken because the Te Ture Whenua Māori Act 1993 processes constrain the development and sale of Māori land more than is the case for land in general title. A further consideration was the varied aspirations of Māori landowners for land development. Given these considerations, the development of feasible Māori land to the RPS density of at least 15 dwellings per hectare was considered most likely to occur in the high growth scenario. Further engagement with Māori Land Trusts is required to fully understand their aspirations.

Infrastructure and services capacity analysis

Stage 3 of the Study involved modelling and high level technical assessments of the three housing growth scenarios. The technical assessments included:

- § Three waters infrastructure (water supply, wastewater, stormwater)
- § Transport
- § Education
- § Commercial centres
- § Open space, community and recreational facilities

The findings of each technical assessment are outlined below.

Water supply infrastructure

A desktop assessment of the capacity of the water supply network in the Study Area was prepared by Stantec in 2019 and is attached as Appendix 4. The assessment considered the upgrades needed to convey water to the boundaries of developable sub-precincts, but excluded the pipes, pumps and tanks internal to any future growth areas.

The assessment noted the planned upgrades to the Study Area water supply network that are specified by Council's 2017 Water Network Development Plan (WNDP) and 2018-2028 Long Term Plan (LTP). The assessment concluded that:

- § There are no network constraints to supplying sub-precincts 1, 5, 6 and 7 if water supply network upgrades (estimated at \$4.6M) are completed as planned in the WNDP and LTP. It was noted that increased demand brought on by residential growth in the Study Area would change some infrastructure design parameters (such as pump station design);
- § Additional works to the already planned upgrades, with an estimated (and LTP unbudgeted) cost of \$1M \$1.3M, would be required to connect sub-precincts 2, 3 and 4 to the network to supply the medium and high population growth scenarios; and.

§ Some high elevation areas within sub-precincts would experience pressures too low to meet the required level of service. This is a particular constraint for sub-precincts 4 and 6 which include areas higher than adjacent residential developments serviced by the existing water network. Further investigation of these sub-precincts would need to consider the requirements for additional pumping infrastructure within the sub-precinct and/or land use and landform planning to reduce issues with water supply pressures at high elevations.

The assessment also found that while the increased demand would change design parameters for some infrastructure (such as pump station design), the network would continue to operate to the required level of service and water supply to other growth areas around Tauranga would be unaffected.

Wastewater network infrastructure

A wastewater infrastructure assessment for the Study Area was prepared by AECOM in 2019 and is attached as Appendix 5.

The assessment identified five constraints within the network that would constrain the business as usual growth scenario. Those constraints are estimated to cost approximately \$3.9M to resolve and they are already recognised and budgeted for in the LTP.

In assessing the moderate growth scenario (Scenario 2), the assessment found constraints to connecting sub-precincts 1, 3, 5, 6 and 7. The assessment considered three engineering approaches for infrastructure in each sub-precinct to provide a range of infrastructure cost estimates. The estimated costs to develop infrastructure to service these five sub-precincts were \$12.1M – \$17.3M. The assessment included caveats as to the implications of and need for further assessments of the required upgrades. These included consenting risk, odour issues and disruption to the transport network where new pipe-laying would require roadworks, particularly along Welcome Bay Road.

No fatal flaws were identified at this stage, however significant challenges were noted with regard to the connection of sub-precincts 5 and 6 because the pipelines options considered either follow the existing route through the estuary, or an alternative route requiring infrastructure in Owens Park and Welcome Bay Road. Both options were considered to have implementation challenges due to their potential to disrupt the community and environmental effects.

In the high growth scenario (Scenario 3), the addition of sub-precinct 4 would increase the cost of the infrastructure identified in Scenario 2, as the increased population would require some assets to be designed with more capacity. Also, new infrastructure would have to extend services to sub-precinct 2 (Kaitemako). The construction of a pipeline along Kaitemako Road to sub-precinct 2 would present challenges due to the disruption to the road. Conversely, the works could provide increased benefits if scheduled to align with road upgrades and if wastewater reticulation was extended to areas currently serviced by septic tanks.

The high level cost estimates for servicing sub-precincts 2 and 4 were between \$6.7M – \$12.6M. Therefore, the total cost for Scenario 3 (high growth) ranges between \$19.7M and \$29.9M.

In Scenario 3 (high growth), AECOM identified significant performance issues at two key pump stations. AECOM recommended further investigation of impacts and options at those pump stations if residential growth is facilitated. This could result in more upgrade requirements being identified.

Infrastructure provision and upgrades for the seven sub-precincts could present an opportunity to consider other network connections in the Study Area. In particular, existing subdivisions at Boscobel Drive and Panorama Drive that are currently serviced by septic tanks could be considered for

connection to the reticulated network. The effect of this on the wider network and infrastructure requirements would need to be assessed

While it is acknowledged that wastewater network upgrades are required for Scenarios 2 and 3 beyond the 2018-28 LTP budget, it is not considered a fatal flaw to urban development.

Stormwater management network

A desktop stormwater infrastructure assessment for the seven feasible sub-precincts and the wider Study Area was prepared by Council engineering staff and is attached as Appendix 6.

The assessment noted that stormwater discharges from the sub-precincts would flow through multiple Special Ecological Areas identified by the City Plan, would contribute to overland flow paths, including overland flows along roads and through reserves and ultimately discharge to Tauranga Harbour.

Land in the Study Area is already susceptible to rainfall-related flooding, and where nearer the harbour, flooding from storm surge and sea-level rise. Awaiti Place, Welcome Bay Road, Resolution Road, Esmeralda Street, Oropi Road and Roxanne Place are currently being investigated to identify how to meet Council's level of service relating to flooding⁶.

A further stormwater management consideration is the management of risk associated with road embankments that store water behind them, creating de-facto dams. A regulatory framework for dam safety is being developed by the Ministry of Business, Innovation and Employment, to regulate "classifiable" dams based on embankment height and potential storage volume. The desktop stormwater assessment found 10 road embankments in the Study Area that may be subject to the regulatory framework for dam safety. A "Dam Safety Assurance Programme" may have to be prepared for those embankments.

Therefore, the Study Area and the developable sub-precincts are constrained environments. The desktop assessment recommended that Council ensure that any development of the sub-precincts be designed with regard to the stormwater management constraints. This would include ensuring that any structure planning processes account for stormwater management matters such as:

- § Managing stormwater flows to not worsen existing flooding issues or displace flows onto downstream receivers;
- § Accounting for stormwater flows created and discharged by development upstream of classifiable dams, to assess if the additional flows alter the dam categorisation under the dam safety regulatory framework;
- § In the converse, consider the risk and constraints posed by classifiable dams situated upstream of proposed urban development sites;
- § The effects of stormwater discharges on freshwater water quality, stream erosion/scouring and the values of affected Significant Ecological Areas;
- § Integrating stormwater infrastructure with transport network improvements around and in new development areas;
- § Integrating water sensitive urban design measures into new development;

⁶ The level of service is the product of depth and velocity in a 1% Annual Exceedance Probability flood. It is not met if the sum of flood depth multiplied by flow velocity exceeds 0.4 m2/s within 8 metres of a residential property.

- § For infrastructure with a long lifespan, building in resilience to future catchment changes (such as future land use changes upstream) and climate change effects; and,
- § Engaging promptly with the Bay of Plenty Regional Council in relation to discharge consents.

Transport network

Previous options assessment

As background to the technical work undertaken in support of the Study, BECA consultants prepared a high level assessment of the feasibility of building a link road between Welcome Bay and Ohauiti in 2010⁷. The premises of that report were:

- § By 2026, traffic volumes will exceed the capacity of Welcome Bay Road and it would become very congested; and
- § The alternative entry to the Study Area via State Highway 2 is a 23-kilometre route. This increases the community's vulnerability to emergencies if the usual route is unavailable.

Two preferred options to link Welcome Bay and Ohauiti were analysed in more detail. Both options were considered feasible from a preliminary design and cost perspective and were rated "Medium" in terms of strategic fit, effectiveness and economic efficiency.

The reported 95th percentile cost estimates for the two options were \$27.7M and \$28.9M.

Numerous possible risks and constraints to approval and development of the link road were identified. These included the acquisition of public and private land (in reserves, general title and Māori title) and potential adverse effects on cultural heritage, ecological, amenity and landscape values.

Current modelling and options assessment

For the current Study, the transport network was re-examined to understand the capacity to cope with additional traffic generate by residential growth. Assessment was carried out in two stages.

Stage 1 was undertaken by BECA consultants, used the Tauranga Transport Strategic Model to assess transport network functionality in the three housing growth scenarios (LU1: 7,669 total dwellings, LU2: 9,459 total dwellings and LU3: 11,062 dwellings). This modelling report is included as Appendix 2.

It was found that in the business as usual growth scenario in 2031, while the network generally performs to an acceptable level, there is still traffic congestion.

However, when additional residential growth under Scenarios 2 or 3 is introduced, the transport network fails to achieve acceptable performance. Therefore, three network improvement scenarios were modelled to understand how they might each assist to improve performance.

- § Option 1: Bypassing the most congested part of Welcome Bay Road;
- § Option 2: Development of an east-west link road through the middle of the Study Area; and
- § Option 3: Development of a ring road around the south of the Study Area.

Option 2 was found to provide the best performance in reducing vehicle travel distances and travel times. Additionally, this option was found to divert traffic to an alternative route to the Tauranga CBD

⁷ Welcome Bay Alternative Link Project Feasibility Report 9 June 2010.

(via a new connection between Poike Road and Oropi Road), thereby helping to relieve existing bottlenecks at the Welcome Bay roundabouts.

Stage 2 of the transport modelling and analysis consisted of an engineering and planning feasibility assessment and estimated cost of Option 2 by Aurecon consultants, which is attached as Appendix 3.

The hilly topography means that vehicle access to the Study Area and travel around it is mainly provided by SH29A and Welcome Bay Road, with north-south collector roads along ridgelines feeding into short local roads that service housing along the ridges. The east-west link road would bisect the Study Area, enabling east-west travel to avoid Welcome Bay Road. Aurecon considered two eastern corridor options and two western corridor options for the east-west link road, connected by a central link at Poike Road.

The following findings were made in relation to the feasibility of an east-west road link:

- § Depending on the combination of eastern and western corridor options selected, the high level cost estimate is \$125M to \$214M with a 95% risk-adjusted cost estimate of \$276M. It would not be financially feasible to fund these costs through development contributions sourced from the extra housing enabled by this road⁸. The level of contribution required per dwelling would significantly compromise development margins;
- § This option would ease, but not eliminate, traffic congestion. Congestion would still occur at peak times;
- § All of the assessed corridor options would generate adverse effects associated with:
 - o Acquisition of public land in reserves and parks;
 - o Acquisition of private land including multiply owned Māori land;
 - o Effects on Special Ecological Areas;
 - o Effects on Significant Māori Areas;
 - o Effects on, and discharges to, waterways;
 - Displacement or exacerbation of flood flows
 - o Effects on landscape values; and,
 - o Effects on other existing network utilities within the corridor alignments.
- § There would be significant uncertainty and risk associated with pursuing statutory approvals for the road link, whether via resource consent or designation approval processes;
- § The assessment was focussed on engineering feasibility and cost. It did not assess community opinion. The community's support for, or opposition to, any such proposal remains untested.

Considering the significant cost estimate (which is only to a high level), uncertainty and risk associated with environmental effects and approvals processes, land acquisition requirements, untested community opinion and the fact that traffic congestion issues would continue to occur even if the link road were to be built, the east-west link road option is not considered to be feasible at this time.

That being the case, it is not considered feasible to enable additional residential development capacity as per Scenarios 2 and 3. The additional traffic volumes generated in those growth scenarios would further compromise the low Levels of Service delivered by the existing transport network.

⁸ It is noted that this cost is significantly higher than the cost estimate provided by Beca consultants in 2010. In part, that is due to the longer length of the link road assessed by Aurecon.

Additional studies will need to be undertaken to investigate the feasibility and suitability of providing additional bus priority lanes and protected cycle lanes along Welcome Bay Road to increase transport choice for the Welcome Bay community.

The Western Bay of Plenty Transport System Plan (TSP) project is currently developing a System Operating Framework (SOF) to identify the location, type, timing and significance/scale of the operating gaps impacting the transport network. The early investigations undertaken to date have unsurprisingly identified operating gaps (e.g. lack of mode choice and accessibility to key social and economic opportunities, and traffic congestion) impacting the Welcome Bay transport network and extending through to State Highway 29A, Turret Road and Fifteenth Avenue.

Although the SOF is still in development, the current early investigations are likely to be confirmed. This would support further analysis of the operating gap through the development of a business case with transport partners like the Bay of Plenty Regional Council and Waka Kotahi New Zealand Transport Agency. The business case (which is still to be agreed and scoped as part of the TSP project) would focus on addressing the operating gaps identified in the SOF.

The vulnerability of Welcome Bay Road to hazards is a further matter relevant to consideration of moderate or high population growth scenarios and for the existing community. This road is the primary transport and utilities route servicing the area. The hilly landform has prompted the section of Welcome Bay Road between James Cook Drive and Waitaha Road to be aligned along the shoreline. The shoreline is at a low elevation and is subject to flooding, sea level rise, landslide and liquefaction hazards.

The concentration of infrastructure in a corridor intersected by multiple hazards increases the assets' vulnerability. For example, a landslip could cause major water supply and wastewater service disruptions. If additional population growth (compared to the business as usual scenario) were to be enabled in Welcome Bay, the reliance on vulnerable infrastructure would increase the community's exposure to risk.

The vulnerability of this part of Welcome Bay Road was identified by Council's resilience project. While mitigation projects have been scoped and costed for consideration in Council's Long Term Plan and 30-year infrastructure plan, the scheduling of these projects is yet to be confirmed.

Education

Council staff worked with the Ministry of Education (MoE) to ascertain what schooling capacity would need to be delivered in each of the three population growth scenarios. The MoE provided a memorandum summarising its views in April 2020, which is included as Appendix 9.

At present there are three primary schools (Selwyn Ridge School, Welcome Bay School and Tauranga Waldorf School) in the Study Area. There are no intermediate or secondary schools.

For intermediate school rolls, 33% is composed of students living in the Study Area.

Secondary school students travel to schools around Tauranga, with 22% and 24% of the respective rolls of Tauranga Boys' and Girls' Colleges composed of students from the Study Area.

The MoE has identified a shortfall of a primary school within the Ohauiti area and is therefore investigating the potential to build a new primary school in this area by about 2025. This process is still underway, with site assessment and selection works continuing. If a suitable site is secured, site layout and designation processes would then need to be progressed.

The MoE advises that with one additional primary school in Ohauiti, there will be adequate primary schooling capacity to cater for population growth in the Study Area.

With regards to secondary schools, the MoE advises that current provision is acceptable in the business as usual and moderate population growth scenarios. In the high population growth scenario, additional secondary schooling capacity would need to be considered. The MoE is not planning to build a secondary school in the Study Area. It has plans to develop an additional secondary school in Tauranga South (Pyes Pa / Tauriko). This will reduce pressure on existing secondary schools and thereby ensure capacity is available for secondary students residing in the Study Area.

Commercial centre development

A Commercial Centres Assessment was undertaken by Veros consultants to understand the commercial and retail needs of the Welcome Bay and Ohauiti catchments. The assessment was peer reviewed by RPS consultants and reported to the Urban Form and Transport Development Committee (UFTD) in March 2019 (Report DC 43). The Veros report and peer review by RPS are at Appendices 7 and 8.

The Commercial Centres Assessment identified that although the Study Area's population is large enough to support a commercial centre(s), there is an undersupply of commercial land. The assessment concluded that under the business as usual population growth scenario, the Welcome Bay and Ohauiti catchments can support a combination of neighbourhood scale and convenience scale commercial centres. In the moderate and high population growth scenarios, additional centres would not need to be developed. Rather, those scenarios would make larger-scale centres viable, for example, a commercial centre in the order of 10,000m² anchored by a supermarket of approximately 1,500m².

The assessment estimated that a site of 0.5 - 0.8 hectares would be required for a commercial centre of this size, given the need to accommodate car parking, ancillary offices, loading bays etc. A larger site would allow for expansion space to cater to future growth.

On the basis of various site and locational criteria, much of the Study Area is unsuitable for commercial centre development. However, the assessment shortlisted four sites (from a longlist of 12) as potential candidates. It recommended that Council prioritise the establishment of a larger commercial centre. The facilitation of smaller centres around the Study Area was considered a secondary option.

Project work regarding a supermarket development in the Study Area has been undertaken separately to the Study. The supermarket project included, community opinion surveys between April - June 2017 and consideration of the use of Council land for a supermarket.

In April 2018, the Community and Culture committee resolved to enter discussions with private landowners in Welcome Bay to explore the potential to develop private land for a supermarket⁹. Council did not formally rule out further exploration of Waitaha Reserve and Owens Park for supermarket use. However, work to date has identified significant difficulties with those options and they were deferred while the Study and discussions with other parties progressed.

Open space, community and recreation facilities

Council staff prepared a desktop Open Space and Community Recreation Facility Assessment for the Study Area in January 2019. The assessment used existing Council strategy and levels of service and staff understanding of existing facilities in Tauranga.

For active reserve land, the findings revealed a shortfall of three outdoor sportsfields in the Study Area under a business as usual growth scenario, using Council's 2017 Supply and Demand Analysis for sportsfields. However, that shortfall was subsequently reduced to approximately 1.5 sportsfields

⁹ TCC Objective ref. A8616906.

required by 2063 using the modelled outputs of Council's July 2019 Supply and Demand Analysis. Council is currently investigating options to provide these sportsfields.

The assessment concluded that the Welcome Bay Community Hall and Centre would meet community demand for community halls and centres under a business as usual scenario in terms of geographical need for facilities, but that further work was required to understand if these facilities were fit for purpose. A Community Facilities Needs Assessment was undertaken in 2019. This noted the need to investigate expansion of Welcome Bay Community Hall and Centre to meet population growth. A community facilities investment plan is being prepared to inform funding in the 2021 - 2031 LTP.

The Open Space and Community Recreation Facility Assessment findings are summarised below.

Facility	Scenario 1 Business as usual	Scenario 2 Moderate growth	Scenario 3 High
Active reserve	Growth will require 1 additional field by 2048 and a further half-field by 2063. LTP budget is available for development on land already owned by Council in the Study Area.	Generates demand for two fields in addition to the business as usual scenario. Provide in the citywide network, considering 'reasonable geographic distribution' of sportsfields.	Generates demand for five fields in addition to the business as usual scenario. As for Scenario 2.
Specialised sports surfaces (other than grass sports fields)	Netball: School training courts only. Adequate capacity in the wider network. LTP funding is available for court resurfacing. Hockey: No turf provided in the area, consistent with the hub and spoke approach promoted by the sporting organisation.	Netball: no additional courts required in the Study area. Hockey: No additional hockey turf required in the Study Area.	As for Scenario 2.
Other active sporting facilities e.g. croquet, petanque, outdoor basketball courts	No formal facilities provided in the Study Area. Not required by strategy or LOS. No LTP project budget.	Not required but could be provided if justified.	As for Scenario 2.
Neighbourhood area and local area open space	The current open space level of service is met. No LTP project budget.	Future development must include neighbourhood reserves (approx. 0.3ha) within 500m of new dwellings, developed in accordance with best practice for open space.	As for Scenario 2.
Sub-regional/ Regional park	Sub-regional / regional park not required in Study Area. No LTP project budget.	As for Scenario 1.	As for Scenario 1.
Community Halls and Community Centres	Level of service met by Welcome Bay Community Hall and Centre. No LTP project budget at the time of preparing this report.	No additional community halls / centres required. Investigate upgrading the current facility after 2030.	As for Scenario 2.

Table 4: Open space and community recreation facility assessment summary

Facility	Scenario 1 Business as usual	Scenario 2 Moderate growth	Scenario 3 High growth
	Investigate upgrading the current facility after 2030.		
Library	Mobile Library visits Welcome Bay School, Victory Street and Greenpark Village one day per fortnight. No Community Library Hub in Study Area. Residents use Tauranga and Greerton Libraries. Redevelopment of the Tauranga Library to increase visitor capacity is currently being scoped. No LTP project budget.	Library facility not required within 10 years. Consider Community Library via LTP when population is projected to reach 20,000 (post-2030).	As for Scenario 2.
Destination	Acceptable. There is currently	As for Scenario 1.	As for Scenario 1.
playground	no destination playground in the Study Area. Not required by strategy or level of service. No LTP project budget.		
Dedicated events space	Tye and Waipuna Parks are popular venues for events. No LTP project budget.	Events in this area are likely to be community-based and focus on community engagement and recreation opportunities. Continue to provide some reserve space in Welcome Bay for community- based events. It is not anticipated that this will be a high demand area for major events.	As for Scenario 2.
Water sports access	Acceptable. Some access to Harbour provided. Not required by strategy or level of service. No LTP project budget.	Consider providing access to harbour if developing land adjacent to the Harbour.	As for Scenario 2.
Swimming pool	Acceptable. There is no pool complex in the Study Area. Not required by strategy or level of service. No LTP project budget.	As for Scenario 1.	As for Scenario 1.
Indoor sports facility	Acceptable. There is no indoor sports facility in the Study Area. Not required by strategy or level of service.	As for Scenario 1.	As for Scenario 1.
Equestrian facility	Acceptable. There are no equestrian facilities in the Study area. Not required by strategy or level of service. No LTP project budget.	As for Scenario 1.	As for Scenario 1.
Skate and BMX park	Waitaha Reserve skate park. No LTP project budget.	Investigate the provision of additional facilities.	As for Scenario 2.
Golf facilities	Acceptable. There are no golf facilities in the Study area. Not required by strategy or	As for Scenario 1.	As for Scenario 1.

Facility	Scenario 1 Business as usual	Scenario 2 Moderate growth	Scenario 3 High growth
	level of service. No LTP project budget.		
Squash facilities	There are currently no squash courts in the Study area. Not required by strategy or level of service. No LTP project budget.	Monitor demand.	As for Scenario 2.
Club rooms	Waipuna Park Pavilion is managed by Bay Venues Ltd. No LTP project budget.	Clubroom requirements are met by current provision.	As for Scenario 2.

The summary above indicates that the three population growth scenarios generally do not require significant additional provision of additional open space, community and recreation facilities. The only additional facilities required are sportsfields and community halls/centres.

When new sportsfields are developed to meet the demand generated by business as usual population growth, storage, public toilets and changing facilities will be provided in line with Council policy. The required 1.5 sportsfields would not generate a requirement for new clubrooms.

The Welcome Bay Hall and Community Centre is already programmed to be investigated for upgrades after 2030.

Therefore, the existing facilities will largely meet demand, with ongoing management and monitoring to identify any changes. Regular supply and demand analyses for sportsfields and community facilities provision (every three years) will identify the matters for consideration in the subsequent LTP.

Feasibility of infrastructure and facility provision: summary

The table below summarises the findings of the technical assessments and investigations carried out in the course of the Study.

Table 5: Feasibility of infrastructure and facility provision

				Feasibility			
	Potable water	Wastewater	Stormwater	Transport	Community	Schooling	Commercial
				network	infrastructure		centre
Scenario 1:	Further works	Further works	Further works	Further works	Further works	Further works	Further works
Business as usual	(LTP program)	(LTP program)	(LTP program)	(improve	(1.5 sportsfields)	(primary school)	(site selection)
growth				transport			
-				choice)			
Scenario 2:	Further works	Further works	Further works	Not feasible	Further works	Further works	Further works
Moderate growth	(LTP budget,	(LTP budget,	(LTP budget,		(3.5 sportsfields)	(primary school)	(site selection)
_	analysis, design)	analysis, design)	analysis, design)				
Scenario 3:	Further works	Further works	Further works	Not feasible	Further works	Further works	Further works
High growth	(LTP budget,	(LTP budget,	(LTP budget,		(5.5 sportsfields,	(primary and	(site selection)
	analysis, design)	analysis, design)	analysis, design)		library,	secondary	
					skate/BMX	schools)	
					facility)		

Based on the high level technical assessments undertaken to inform the Study, it would generally be feasible to supply infrastructure and facilities to support both development in the business as usual, moderate and high growth scenarios.

However, the key caveat is that all scenarios require further planning and analysis works, with costs, complexity and network implications increasing from the business as usual scenario through the moderate growth scenario to the high growth scenario.

The recommendations arising from the Study reflect the further works required to enable the business as usual scenario to progress, given it is not feasible (due to cost, risk and uncertainty) to upgrade the transport network to enable the moderate or high growth scenarios.

Engagement with tangata whenua

Table 6: Tangata whenua engagement summary

Timing	Action
June 2017	Presentation to the Tangata Whenua Collective (now Te Rangapū Mana Whenua o
	Tauranga Moana) about the Study.
March 2018	Email updates to parties.
April 2018	Email updates to parties.
April 2018	Update to the Tangata Whenua Collective (now Te Rangapū Mana Whenua o
	Tauranga Moana) about the Study.
May 2018	Hui with iwi and hapū representatives to provide an overview of the Study and the
	key stages.
September 2018	Hui with iwi and hapū representatives and Māori Land Trusts to provide an
	overview of the Study and key stages.
November 2018	Hui with iwi and hapū representatives and Māori Land Trusts to discuss outcomes
	of Stages 1 and 2.
December 2018	Email updates to parties.
July 2020	Hui with iwi and hapū representatives and Māori Land Trusts.

In addition to the above, email correspondence occurred between staff and individuals was undertaken in reply to questions about aspects of the Study.

At the July 2020 hui some attendees expressed strong concerns that the Study's outcomes may constrain the development of Māori land in the Rural and Rural Residential zones.

Given the Study findings, the development of all of the seven feasible sub-precincts is constrained.

Without rezoning to urban zones and given the repeal of the Special Housing Areas legislation the other six feasible sub-precincts will retain the development potential anticipated by the Rural and Rural Residential zones.

In terms of land uses, the Rural and Rural Residential zones prioritise primary production. However, low density residential activities including papakāinga and lifestyle dwellings are provided for if development performance standards are satisfied. Business and industrial activities in these zones is not encouraged. The resource consent process provides for the assessment of proposals not aligned with the primary productive orientation of these zones.

A recommendation arising from the Study is to engage with Māori Land Trusts during the Tauranga City Plan Review project. The purpose of engagement will be to ensure that the diverse aspirations for the development of Māori land are understood and considered in the Plan review process.

Engagement with landowners

In May 2018, a letter was sent to all landowners whose land was assessed and classified as green, orange and red as part of the first stage of the Study. The correspondence advised landowners of the purpose of the Study and how their land had been classified (i.e. feasible, potentially feasible or not feasible). It noted that further investigations would ensue and that the findings would be reported.

Following the mail-out, Council staff responded to enquiries on a case-by-case basis, including meetings with some interested parties.

Council staff have now sent a second mail-out to relevant landowners, summarising the Study's findings and the staff recommendations to the UFTD committee.

Conclusion

The Welcome Bay and Ohauiti Planning Study was initiated in mid-2017 in response to developer enquiries and housing pressures being experienced in Tauranga.

The first stage of the Study entailed an assessment of the potential development capacity of land in the Rural and Rural Residential zones, taking into account a range of constraints such as site topography, size and configuration, existing use and development, natural features, contamination, heritage and the like.

The assessment revealed that approximately 231 hectares of land, across seven sub-precincts, has feasible or potentially feasible development capacity. Of the 231 hectares, approximately 108 hectares is Māori land held in multiple ownership. The Māori land comprises the majority of two of the seven sub-precincts.

Using that information, three future development scenarios were developed as a basis for infrastructure capacity assessments as follows:

- § Scenario 1: Business as usual growth. This entailed limiting further housing development to the existing urban zone extents and not rezoning any rural land. In this scenario, by 2063 approximately 1,347 dwellings would be added to the 6,322 dwellings present at the 2018 census.
- § Scenario 2: Moderate growth. In this scenario approximately 123 hectares of land in general title would be rezoned and enabled for development. This was projected to add approximately 3,137 dwellings by 2063 compared to the 2018 census count.
- § Scenario 3: High growth. This entailed rezoning and enabling development over all 231 hectares of feasible land within the seven identified sub-precincts. This scale of change was projected to yield approximately 4,740 dwellings by 2063 compared to the 2018 census count.

At Stage 2 of the Study, assessments and investigations were undertaken to understand the capacity of infrastructure and services to cope with the demand generated by each of these population growth scenarios. The assessments covered water supply, wastewater services, stormwater infrastructure, educational facilities, the transport network, commercial centre provision and the provision of open space, community and recreational facilities.

The findings from the assessments indicated that although most of the necessary infrastructure and services could be upgraded or constructed to service the additional growth in Scenarios 2 and 3, there is a fatal flaw in the transport network. The transport network servicing the Study Area (intersections in particular) is expected to operate at Level of Service F (low) at some key intersections, while providing limited alternative transport choice.

It is not likely to be feasible or affordable to construct an east-west link road to improve the network capacity and absorb the additional demand generated by population growth. This represents an obstacle to growth beyond the business as usual scenario.

As such, the Study has produced a recommendation that Council progresses investigations into the Upper Ohauiti sub-precinct in particular. This aligns with the RPS identification of Upper Ohauiti as an urban growth area and indicative RPS provisions regarding the sequencing of growth areas. The six other potentially developable sub-precincts are more constrained by their reliance on Welcome

Bay Road for transport movements and utility provision. It is recommended that Council engage with Māori Land Trusts through the City Plan Review project to more fully understand development aspirations for land in Welcome Bay.

The recommendations arising from the Study otherwise promote a business as usual approach to population growth and residential development in the Study Area and support the investigation of options to improve on the current provision of infrastructure and facilities to the community.

Appendices

Appendix 1:	Study Area maps
Appendix 2:	Welcome Bay Growth Study Strategic Transport Model Analysis
Appendix 3:	Welcome Bay East-West Corridor Environmental Feasibility and Options Report
Appendix 4:	Water Supply Assessment
Appendix 5:	Wastewater Assessment
Appendix 6:	Stormwater Assessment
Appendix 7:	Welcome Bay and Ohauiti Commercial Centres Assessment
Appendix 8:	Commercial Centres Assessment – Economic Peer Review
Appendix 9:	Ministry of Education memorandum

Appendix 10: Open Space, Community and Recreation Facilities Assessment