



PROJECT BRIEF

SUBREGIONAL INFRASTRUCTURE RESEARCH PROJECT

(TRANSPORTATION WORKSTREAM)

Background:

Substantial population and urban growth has occurred in the Western Bay of Plenty (WBOP) Sub-region for many decades. Strong growth is expected continue into the foreseeable future.

To manage this growth the SmartGrowth Strategy for the WBOP sub-region was developed in 2004. This Strategy provides a 50 year vision for the development of the sub-region. An integral part of the Strategy is the Settlement Pattern. The Settlement Pattern identifies the geographic areas where urban development (residential, industrial and commercial) is expected to occur in the future within the sub-region as well as the general timeframes for this development based primarily on the adopted SmartGrowth population projections. The Strategy and the Settlement Pattern are currently in the process of being updated.

The SmartGrowth partners are now finding for a number of reasons that there is likely to be insufficient land identified within the SmartGrowth Settlement Pattern to accommodate expected growth in the coming 40 to 50 years. The reasons for this are:

- An expectation of lower densities than originally forecast in urban growth areas like Wairakei and Te Tumu and less residential intensification taking place (land is required for approximately 11,750 people). For instance residential yields in Wairakei were originally envisaged to be approximately 25 dwellings per hectare, this is now not expected to exceed 15.
- Potentially a staged stepping towards the target of an average of 15 lots / dwellings per hectare in the urban growth areas of Tauranga City (resulting from the settlement of an appeal to the Tauranga City Plan, the outcome of this appeal is not yet confirmed)
- Working to a different total population in the sub region (possibly 300,000 people because the SmartGrowth Strategy is likely to look out to 2061 instead of 2051 to retain a 50 year vision.
- The identified long-term shortage of industrial land (this is currently estimated to be 300 hectares but may change as the result of further research being undertaken on this issue)

In addition to this, additional land may need to be found because of:

- The possibility that the infrastructure costs associated with servicing growth in some of the areas already identified in the settlement pattern may be prohibitive which, if true, would necessitate growth being relocated or an alternative land use identified for these areas.
- The possibility that research underway by SmartGrowth into residential infill and intensification development may result in less growth being allocated to this form of development.

The SmartGrowth Land Capacity and Suitability Study, Post 2041 identifies and assesses a number of additional areas where urban development could occur in the sub region. Each of these areas identified in that report has specific challenges. One of these challenges was the capacity of the transport network (or lack of) to accommodate growth and to continue to function as necessary without significant investment in additional capacity occurring.

There are also significant challenges in balancing the needs of local traffic resulting from population growth within the sub-region and inter-regional traffic (especially freight flows related to the Port of Tauranga).

The Tauranga Urban Network Study (TUNS1) is currently being developed with a completion goal of August 2012. This study looks at the arterial and sub-arterial roading network around the city out to 2036+ and will identify roading issues that are expected to arise over that time. This Transport research report will be an extension to the TUNS1 report and findings; it will not duplicate the TUNS work in any way.

This report will be used, along with reports for other network infrastructure to help identify the most desirable location(s) for urban growth in the long-term.

Project Goal:

To provide recommendations as to the most affordable, efficient and integrated transportation system to service the urban growth required to accommodate a sub-regional population of 300,000 people. The project will however only address the growth that currently is not anticipated to be able to be accommodated within the current Settlement Pattern, for the purposes of this report it has been estimated that this amounts to:

- 300 hectare of industrial land
- 30,000 people (at 15 dwellings per hectare). This is made up of:
 - 11,750 as the result of expected lower yields in Wairakei and Te Tumu, and less intensification to date than expected
 - 14,000 as the result of working to a total population of 300,000 people in 2061
 - The remainder (4,250 people) as the result of a stepped approach to achieving 15 dwellings per hectare in greenfield areas.

This growth will be located in the area between Paengaroa in the south and Katikati in the north, and, except for industrial land, is not likely to be developed until post 2041 (or thereabouts).

Project Manager:

The Project Manager is Philip King – Transportation Planner, Tauranga City Council.

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Project Scope:

The scope of this project is to provide a high level report which will essentially cover the sub region's arterial road network including State Highways and local primary and secondary arterial corridors. It will need to assess the impacts on the transportation network of the various options for locating growth that differs from the existing SmartGrowth Settlement Pattern. These areas are all identified in the SmartGrowth Residential Land Capacity and Suitability Study, Post 2041.

It should be noted that the Residential Land Capacity and Suitability Study, Post 2041 identifies 16 areas that could be considered for future residential development. Not all of these identified areas will be required for development within the current SmartGrowth time horizon given the additional growth needing to be accommodated (as identified above). This project will assist in identifying the most suitable areas to focus that future development from a transportation perspective.

The focus on the State Highway network reflects the nature of the transport network in the sub region. For instance:

- The only current options for cross harbour travel are via the State Highway network
- All future growth areas are likely to result in significant additional local traffic either using or crossing the State Highway network due in a large part to the geography and topography of the sub-region
- There is potential for conflict on State Highways between accommodating additional local traffic as the result of population growth and ensuring efficient inter-regional traffic flows, especially freight flows
- The Port of Tauranga is likely to expand significantly into the future – an efficient State Highway network is paramount to this.
- Some of what is now the State Highway network within Tauranga City was initially developed by Council as local arterial roads and has therefore historically played an integral role in accommodating local traffic.

While the focus is on the State Highway network, new or upgraded local arterial roads which could take pressure off the State Highway network are within the scope of the project, as is the effect on the roads of the rail network and its potential to keep freight off the road network and for local and national passenger transport.

It should be noted that a separate workstream under the wider Infrastructure Research Project will deal with the potential to align growth in the short to medium term (the next 20 years) with the areas where transportation capacity exists due to completed or committed investment in projects such as Route K and the TEL. This research project however has a longer term focus (20+ years).

Project Inputs:

- SmartGrowth Residential Land Capacity and Suitability Study Post 2041
- TUNS 1 (2011-2041)
- Upper North Island Strategic Alliance (UNISA)
- TEL Network Plan
- Regional Land Transport Strategy 2011-2041
- Draft Tauranga Transport Strategy 2012-2042
- SH2 Pokeno to Tauranga Study
- SH29 Strategic Study
- SH2/33 Corridor Plan

- SmartGrowth growth projections

Project Outputs:

This project should:

1. Identify the key transport challenges that are likely to emerge if additional growth was to be allocated to either the:
 - Eastern corridor (i.e. east of Papamoa)
 - Western corridor (centered around SH29)
 - Northern corridor (from Te Puna to Katikati)
2. Provide high level costings for the various challenges and options.
3. Provide a draft report detailing each option and providing recommendations as to the most preferred of these options and why.
4. Provide a final report.

Methodology:

The Project Team is to provide for the SmartGrowth Research Working Group's approval the methodology to be used for this project. It is anticipated that this will be carried out as an extension to the TUNS1 work currently under way and due for completion in August 2012.

The methodology should be based on achieving the Optimised Transport System approach in the BoP Regional Land Transport Strategy (2011-2014, Figure 15) and the NZTA Planning, Programming and Funding Manual. This includes:

a) Identifying the key transport challenges (capacity issues, investment requirements, high level costings, funding issues, timing issues etc) that are likely to emerge if additional growth is allocated to either the:

- Eastern corridor (i.e. east of Papamoa)
- Southern corridor (centered around SH29)
- Northern corridor (from Te Puna to Katikati)

b) Identifying any potential spare transport network capacity and any challenges that may arise in introducing the post 2041 growth identified in the SmartGrowth Residential Land Capacity and Suitability Study, Post 2041.

c) Recommendations from a transport perspective for the allocation of development to specific locations where spare transport capacity is likely to exist. This should continue to be done according to the investment hierarchy by considering options to manage traffic demand through measures such as travel behaviour change incentives.

d) Identifying where (if any) new transport infrastructure might be required to provide additional capacity necessary for remaining growth allocations

Note:

Existing work such as TUNS1 will be used to identify geographic areas where the strategic transport network is currently able to accommodate further growth.

Existing work such as TUNS1 will also be useful in identifying future transport issues that will emerge as the result of various settlement pattern options or that will emerge regardless of settlement pattern options. However further information may be

required to understand these future issues adequately. If this is the case the project team will identify the appropriate methodology to be applied.

Project Resources:

- Project team:
 - As per the TUNS1 Project Team

Consultation Requirements:

n/a

Timeframes:

Project inception meeting	23 May 2012
Regular fortnightly project meetings	On-going – TUNS 2 focus from July / August 2012
Draft transport report complete for consideration by research team	September 2012
Draft report finalised by research team	
Draft infrastructure report completed, including the transport report as an appendix	
Presentation of draft report to IMG	
Presentation of draft report to SGIC	
Peer reviews completed	
Presentation of findings to IMG	
Presentation of findings to SGIC	