



PROJECT BRIEF

SUBREGIONAL INFRASTRUCTURE RESEARCH PROJECT

1. 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 in 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:

- Lower densities in growth areas like Wairakei and Te Tumu and less residential intensification taking place (land is required for approximately 11,750 people)
- Likelihood of further reductions to minimum residential yields below 15 lots per hectare resulting from the settlement of an appeal to the Tauranga City Plan (effect of this is unknown at this stage)
- Working to a higher total population in the sub region (approximately 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.
- 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.

On the other hand, there is currently significant uncertainty about likely long-term population growth rates which have in recent years reduced substantially. This issue will become clearer once the 2013 census data is available and has been used as a basis for determining new long-term growth forecasts for the sub-region.

The SmartGrowth *Residential Land Capacity and Suitability Study 2011* identifies and assesses a number of additional areas where urban development could occur in the sub region and some issues around the servicing of such areas with suitable network infrastructure. Each of these areas identified in that report has specific infrastructural challenges associated with providing appropriate water, wastewater, transportation and other infrastructure to service urban development.

The Settlement Pattern options set out in the *Residential Land Capacity and Suitability Study* need to be examined in terms of effectiveness, efficiency, financial viability and affordability of providing this infrastructure. A sub regional perspective on aligning infrastructure with new urban land options is necessary. A sub regional perspective requires that the infrastructure provided by the local authorities and the New Zealand Transport Agency be looked at together in a holistic way.

It is noted that there has already been significant recent public investment in key network infrastructure to support existing and planned sub-regional growth. For example, the southern and Omokoroa wastewater pipelines, Route K, Harbour Link and the Tauranga Eastern Link. In general all the public agencies involved in SmartGrowth are seeking to maximise the efficient use of existing investment before committing significant capital investment into new infrastructure projects. Examining options in this regard is a key part of this research project.

2. Project goal

To identify whether any changes to the SmartGrowth Settlement Pattern are warranted in the short to medium term (particularly around the sequencing of growth between different areas) because of a need to maximise the use of existing public infrastructure investments and to minimise the need for costly investment in new infrastructure projects.

To evaluate and provide recommendations on what is required to achieve the most effective, efficient, financially viable and affordable form of network infrastructure (water, wastewater and transportation) to service the various possible future growth areas outlined in the current SmartGrowth Settlement Pattern and the SmartGrowth *Residential Land Capacity & Suitability Study*.

In addition, the project will also evaluate whether any significant stormwater or electricity servicing issues/ barriers might exist for these same areas.

3. Project Manager

The project manager for this brief of work is Lee Jordan, Utilities Planner Tauranga City Council. As discussed later in this brief, the project will be divided into a number of separate workstreams, each with its own individual project manager and project team. The project manager/team of these individual workstreams will report to Lee Jordan as project manager for the wider project.

4. Project Scope

The project research will cover the Western Bay of Plenty sub-region, which includes both Tauranga City Council and Western Bay of Plenty District Council areas. Of particular focus will be servicing possible new urban areas for long-term growth located between Katikati and Paengaroa. These include future growth areas already identified in the SmartGrowth Settlement Pattern and additional areas outlined in the SmartGrowth *Residential Land Capacity & Suitability Study* (with a greater focus on the latter).

The project is being undertaken as part of the current SmartGrowth Strategy Update process and the outputs will feed into strategic planning thinking within that wider project at a technical and political level.

The project is expected to answer some key questions such as:

- How well does the current investment in key strategic infrastructure by all major public agencies align with existing and planned urban growth patterns within the sub region?
- Where does infrastructure provision lag behind uptake of the current SmartGrowth settlement pattern (if anywhere?)
- Conversely, where is growth uptake lagging behind what was expected, such that “sunk” investments are not being utilised as expected?
- What opportunities are there to maximise or optimise the use of existing network infrastructure (including committed investment in infrastructure such as the TEL or southern pipeline) in the short to medium term?
- What are the major issues and options regarding infrastructure investment to service the long-term SmartGrowth Settlement Pattern taking into account the current Settlement Pattern and the various additional settlement options investigated in the SmartGrowth *Residential Land Capacity and Suitability Report* ?

5. Project Inputs

The structure of the project will be broken down into separate workstreams as follows:

- a. Existing and committed infrastructure investment – options and implications of maximising/optimising the use of this infrastructure
- b. Wastewater – long-term issues and options
- c. Transportation – long-term issues and options
- d. Water – long-term issues and options
- e. Local stormwater – long-term issues and options
- f. Network Electricity – long-term issues and options

Separate project briefs will be written for b, c and d above due to the complexity of the issues involved. As such, these project briefs will outline their own project inputs. Separate project briefs are not required for a, e and f above as these issues are simpler and more defined.

For all of the project workstreams, the current SmartGrowth Settlement Pattern will be used as a base with the SmartGrowth *Residential Land Capacity and Suitability Report* outlining other potential future areas for settlement.

Overall the project will be based on a scenario of accommodating a total population of 300,000 people into sub-region including the necessary land for industrial and commercial and other land use activities that this would require. It is currently expected that this population of 300,000 people would be reached around 2060 (in approximately 50 year’s time). However it may occur earlier or later than this depending on actual growth rates.

6. Project Outputs

An overview written report for each workstream will be provided:

Existing and committed infrastructure investment workstream

- The report from the existing and committed infrastructure investment workstream will include a strategic overview of where transportation, wastewater and water infrastructure capacity is currently available (including committed investment) within the sub region to accommodate further growth. Whether this infrastructure capacity has been already allocated to identified growth areas in the long-term or whether excess capacity would remain long-term. What options exist in the short to medium term to maximise / optimise the use of this existing infrastructure investment (if any), including what this would mean in terms of other infrastructure investment that would need to occur to maximise / optimise existing investment in projects such as the TEL or southern pipeline or Omokoroa infrastructure.
- A commentary on how existing and current infrastructure investment in major projects like the southern pipeline and the Tauranga Eastern Arterial align with the long-term SmartGrowth vision. A commentary on whether misalignment of infrastructure investment may have occurred (if it has) in the short to medium term across the key infrastructure networks.

7. Other workstreams

- A strategic overview of the key long-term infrastructure issues and options for each infrastructure network based on the various settlement pattern options. This overview should be broken down into corridors. These being the northern, southern, eastern and central corridors.
- Recommendations on the best long-term options for infrastructure servicing based on the various Settlement Pattern options.
- The reports for each of these workstreams will be structured in the same way. A standard report template will developed between the Project Team and the research service provider.

8. Overall Report

An overview report for the whole project will also be provided. This will bring together outcomes of all the separate work stream reports to make overall recommendations about the most promising settlement pattern options from an infrastructure servicing point-of-view. It will also identify the opportunities and obstacles to maximising the use of existing and committed infrastructure investment.

9. Methodology

The methodology to be used for the water, wastewater and transportation workstreams is set out in their specific project briefs. In some cases this may involve the use of external consultants.

The methodology to be used for the electricity workstream is to work collaboratively with Powerco (and possibly Transpower) and to rely on their expertise in identifying any substantial issues that may arise.

The methodology for the stormwater workstream is yet to be determined. It will be communicated to the SmartGrowth Research team for their approval prior to research commencing. Its focus is on local area management.

The methodology for the existing and committed infrastructure investment workstream is as follows:

- g. Identify existing and committed infrastructure investment (primarily in water, wastewater and transportation networks) and the additional infrastructure capacity available to accommodate further growth
- h. Identify the current growth allocation as per the current Settlement Pattern to determine the extent to which this capacity will be used up by future development
- i. Consider options to maximise the use of this infrastructure capacity in the short to medium term through bringing forward growth in specific areas and/or opening up new urban growth areas. This must include the implications of these options on other parties, including the other SmartGrowth partners.
- j. Make conclusions as to viable options (if any) for maximising the use of existing and committed infrastructure investment
- k. Explain how current infrastructure investment decisions align with the delivery of the Smartgrowth 50 year vision
- l. Explain the history and reasons why in the short to medium term there may be some misalignment in infrastructure investment between the SmartGrowth partners (if this is the case).

10. Project Resources

- Overall project manager: Lee Jordan, Utilities Planner at TCC. Lee is also the primary contact for the water, wastewater, stormwater and electricity workstreams.
- XXXX is the primary contact for the transportation workstream.
- Andrew Mead, Strategic Advisor at TCC is the primary contact for the existing and committed infrastructure investment workstream.
- The overall project team is made up of these people plus the other project team members of the water, wastewater and transportation workstreams as set out in the project briefs for these individual workstreams.
- For clarity, the role of the Project Team is to assist in delivering a draft report. This draft report will be reviewed and subsequently approved by the SmartGrowth Research Working Group (a sub group of the SmartGrowth Implementation Management Group).

11. Consultation requirements

As set out in the individual infrastructure specific workstreams.

NZTA, TCC and WBOPDC services engineers and planners will be consulted in regard to the workstream on existing and committed infrastructure investment.

Powerco (the local electricity lines business) and possibly Transpower (the national grid operator) will be consulted in regards to the electricity workstream.

Consultation requirements for the stormwater workstream will be determined as this project commences.

12. Timeframes (to be determined)

Project inception meeting	
Regular fortnightly project meetings	On-going
Identify Individual project milestones	
Stage 1: Offer of Service and Contract	By ???
Stage 2: Review of Capacity and Gap Analysis for main network services	By ???
Stage 3: Methods for Addressing Identified Gaps?	By ???
Stage 4: Draft Overview Report and review with Project Team	To be confirmed
Stage 5: Present Report to SGIMG Presentation of draft report to SGIC and finalise Report	To be confirmed