



Infrastructure Funding and Financing

# Implementation pilots

Eastern Bay of Plenty

December 2020



**Te Tari Taiwhenua**  
**Internal Affairs**

# Contents



01 Introduction

---

14 Infrastructure landscape

---

20 Wastewater integration

---

34 Flood protection

---

54 Housing development

---

74 Industrial development

---

88 Commercial and tourism development

---

100 Conclusion

---

## Acknowledgements

The Study team gratefully acknowledges the input from representatives from Rotorua Lakes Council, Whakatāne District Council, Bay of Plenty Regional Council and Kawerau District Council for their time to attend workshops and contribution to the development of this document.



# Introduction

## Background

This Implementation Pilots study (the Study) has been commissioned by the Department of Internal Affairs (DIA) to work through alternative funding, financing and delivery structures with local authorities, as well as central government stakeholders.

Its aim is to expand thinking on the ‘toolbox’ of structuring options available to local authorities in order to address the challenges that are currently preventing infrastructure from being developed.

The Eastern Bay of Plenty sub-region is made up of predominately provincial and rural communities that face significant challenges with the affordability and deliverability of infrastructure.

For this reason it has been selected as a pilot area of the Study, with case study projects identified from within the Eastern Bay of Plenty sub-region.

The selected case study projects should be viewed as hypothetical. The Study is not seeking to propose the way forward for these projects. Rather, the purpose of the Study is to outline the tools available to local authorities and demonstrate how they can be combined in innovative ways to fund, finance and deliver similar projects throughout New Zealand.

There are a wide range of ways in which the tools can be combined. The combinations selected in this Study represent just a few. Project specific attributes and stakeholder preferences will be required to develop the most appropriate way forward.

## Infrastructure Funding and Financing

The Urban Growth Agenda (UGA) aims to improve housing affordability. The Infrastructure Funding and Financing (IFF) work programme – as part of the UGA – is designed to support the responsive provision of local infrastructure by overcoming local authorities’ technical financing constraints to deliver local infrastructure. Overcoming these constraints will support timelier provision of housing and support competitive urban land markets.

A Bill to enable alternative financing models or Special Purpose Vehicles (SPVs) was introduced

into parliament in December 2019 and was enacted into legislation in August 2020. While an important new tool for local authorities, the IFF SPV model is primarily a financing tool and does not seek to address all challenges faced by the local government sector.

While considering IFF SPV models, this Study takes a broader view of new potential tools, in particular how local authorities work together to meet their infrastructure challenges



# Approach

In order to identify suitable candidate projects, a longlist of projects was generated and discussed with Study partners. The longlist was developed by drawing on Long Term Plans (LTPs) as well as projects provided directly by Study partners.

The case study projects were selected based upon four key criteria :

- The extent to which the project provides opportunities for private sector involvement
- The extent to which the project was not a business as usual project
- The infrastructure type (e.g. three waters) was not considered elsewhere in the Study
- The extent to which the challenges addressed by the project were applicable to other regions.

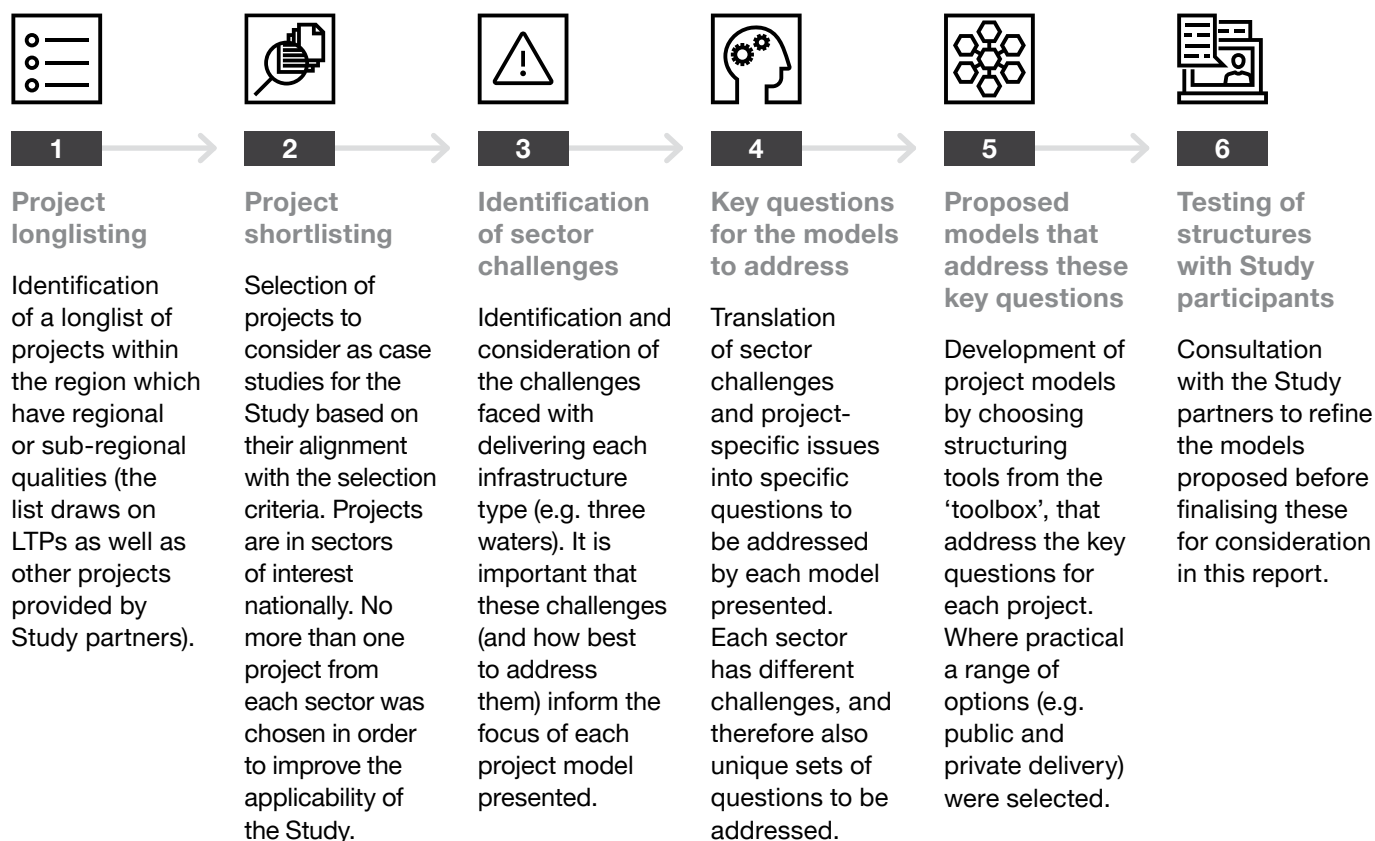
Further information on the selection criteria is provided on page 16.

Once projects were shortlisted, the next step was to identify and analyse the sector challenges faced, which prevented or slowed the progress of these projects (and other similar projects). These challenges were grouped into key areas that formed the underlying questions each model would need to address. The models were developed to demonstrate how the tools available to local authorities could be combined to address the questions identified. The models do not seek to address challenges that require substantial legislative change (e.g. RMA reform).

An overview of the approach to identifying the models presented in this report is set out below.

The 'toolbox' of structuring tools available to local authorities (and considered in this Study) is set out in more detail on the following pages.

## Approach overview:



# Māori engagement

This Study recognises the importance of Māori engagement and participation (as tangata whenua) in the delivery of New Zealand’s infrastructure.

Due to the hypothetical nature of the case study projects, which are driven by local authorities, no direct Māori engagement has yet been undertaken in the development of this Study. Instead, a spectrum of potential options have been presented for how Māori could participate in the funding, financing and delivery structures investigated.

The spirit and intent of New Zealand’s foundation document – Te Tiriti o Waitangi was to establish a partnership relationship between the Crown and Māori. In an infrastructure context, the Treaty articles and principles (outlined below) provide a framework for the important role Māori play with respect to infrastructure and its impact in our communities and the environment.

Article	Principle	Description
<p><b>Article 1</b> <b>Kāwanatanga Governance</b></p> <p>Infrastructure provides space for Māori to participate in decision making.</p>	<p><b>Partnership</b></p>	<p>Involves working together with iwi, hapū, whānau and Māori communities throughout the full project lifecycle. This could include governance and ownership roles in the delivery of projects.</p>
<p><b>Article 2</b> <b>Tino Rangatiratanga Self-determination</b></p> <p>Infrastructure empowers Māori aspirations and promote the right to determining Māori success.</p>	<p><b>Active Protection</b></p>	<p>Acknowledges Māori rights, benefits and possession and ensures tikanga, taonga, te reo Māori are respected. This could include incorporating mātauranga Māori (as it relates to sustainability and environmental protection).</p>
<p><b>Article 3</b> <b>Ōritetanga Equity</b></p> <p>Infrastructure acts to ensure Māori achieve equitable access to resources and services to improve Māori experiences and outcomes.</p>	<p><b>Tino Rangatiratanga</b></p>	<p>Involves working with Māori to achieve self-determination and mana motuhake, emphasising for Māori by Māori.</p>
	<p><b>Equity</b></p>	<p>Commits to achieving equity for Māori as determined by Māori to ensure whānau live to their full potential.</p>

**Prior to taking this Study further, engagement with Māori should be sought to understand how and when they would like to be involved. Continued engagement with Māori through the business case phase of any of the case study projects is critical to the success of any of the projects.**

# The local authority ‘toolbox’

Alternative models for each project have been developed by drawing on the range of tools available to local authorities.

Each commercial structure has a different combination of tools to form a funding, financing and delivery model. Tools were selected based upon whether they addressed the key questions, and the extent to which the combination proposed is implementable. While a number of tools may be applicable to each structure, the Study has been designed to ensure a range of tools are represented across the different sectors.

The general tools available are set out below. When developing the models presented, specific tools available to certain sectors or projects were also considered (e.g. the use of specific water charges for water projects).



## Delivery structure

The delivery structure is the ownership, governance and management framework for the project. There is a spectrum of involvement for participants, which has direct implications on control and balance sheet treatment for these participants.

Council delivery	New entity	Partnership	Joint procurement	Traditional delivery
Crown delivery	Stakeholder	Partnership	Shareholding	Crown delivery
Iwi involvement	Project sponsor	Partnership	Shareholding	Iwi delivery
Private delivery	Service provider	Partnership	New SPV entity	Full privatisation

Extent of involvement →



## Funding sources

Four categories of funding sources were considered, ranging from traditional council sources (e.g. general rates) to more complex value capture opportunities (e.g. integrated land development). Where appropriate, a ‘beneficiary pays’ approach was used to select funding tools. Beneficiary pays prioritises targeted funding on project beneficiaries and minimises the funding burden on general ratepayers (and taxpayers).

General

Targeted →

Crown funding	Council funding	Value capture	Direct
Crown grant	General rates	Negotiated contributions	Private capital
Seed capital	Targeted rates	Land intervention <sup>1</sup>	Commercial opportunity <sup>2</sup>
Specific Crown funds	Developer contributions	Property development	Tax/duty
		IFF Levy	User pays <sup>3</sup>

<sup>1</sup>Land intervention includes land purchase, sales, leases, etc..

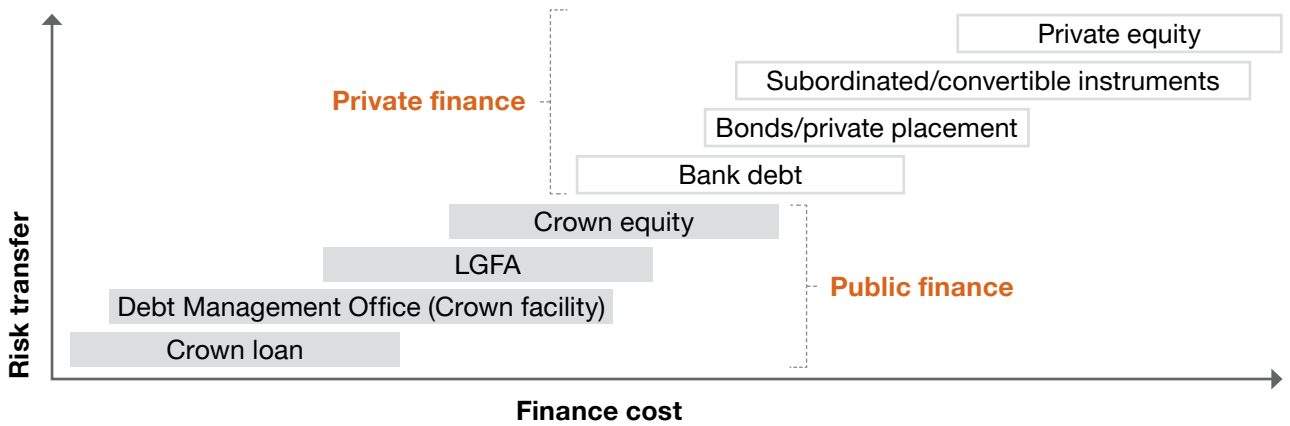
<sup>2</sup>Commercial opportunities include advertising and sale of useful by-products (waste)

<sup>3</sup>User pays includes fees and charges, volumetric charging (water), gate fees (waste), ‘pay-as-you-throw’ (waste).



### Financing sources

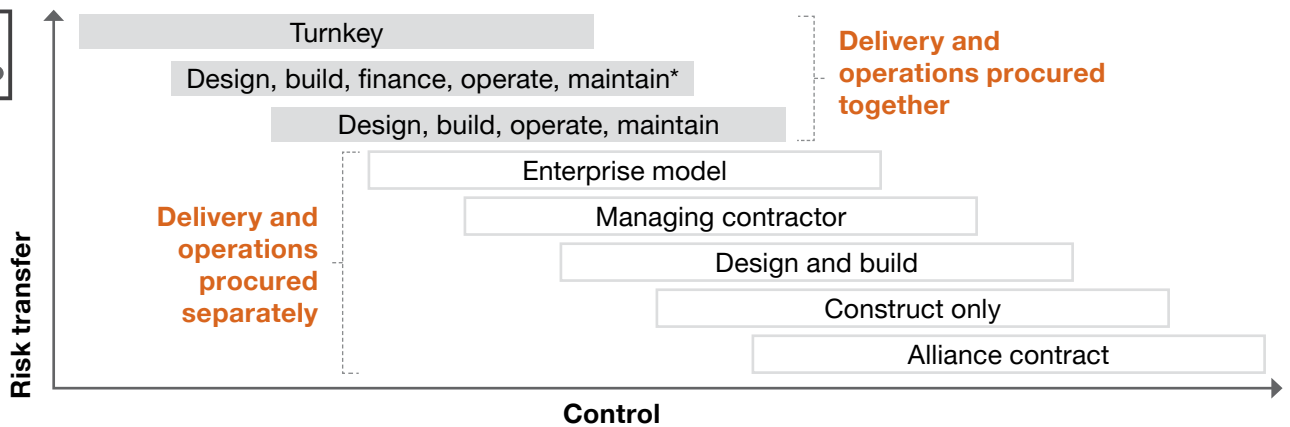
Finance costs are directly related to the level of risk associated with the capital being financed. For example, debt raised by a local authority will generally be cheaper than debt raised by a project SPV. To the extent local authorities are exposed to project risks (and debt holders have recourse to these authorities), local authority debt capacity will be impacted.



### Capital and operations delivery

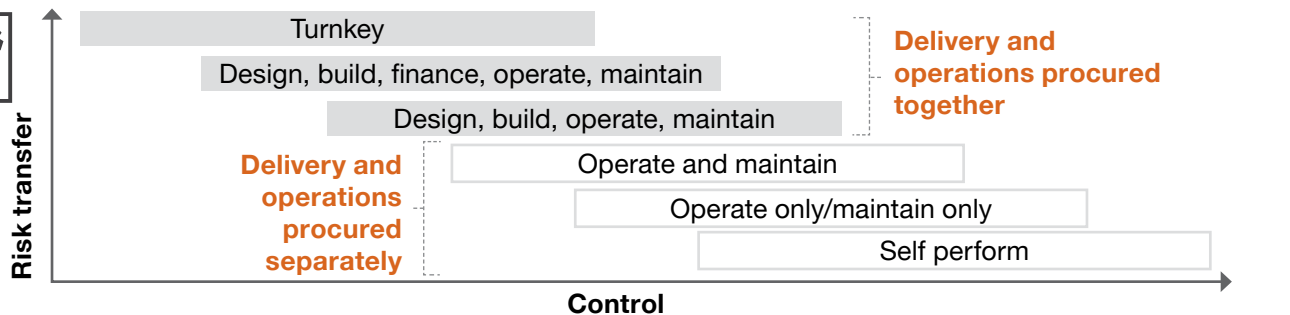
The key trade-off between risk transfer and retention of control was the focus for the capital and operations delivery models. Risk transfer incentivises whole of life pricing and investment in technology and innovation. However, the private sector generally requires a greater level of control and a higher price to accept the additional risk.

#### Capital



*\*Other private finance variations may also be possible (e.g. build, own, operate, transfer), which have slightly different ownership arrangements and may facilitate additional risk transfer (e.g. demand risk for a toll road project).*

#### Operations

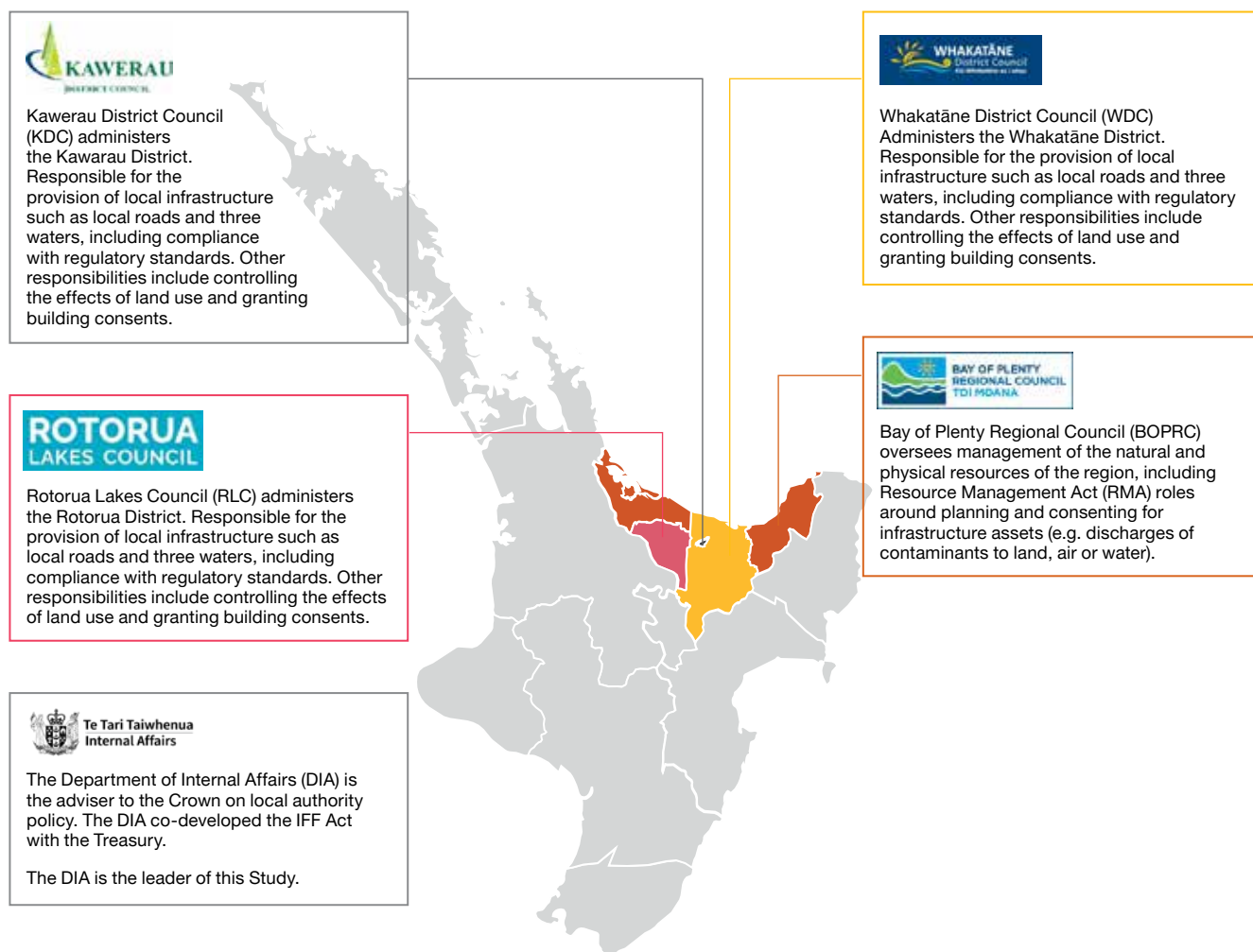


# Partners

The Study draws upon representatives from local authorities across the region. A collaborative approach to the Study was undertaken, where partners were involved through the process, including in the identification of appropriate projects and sector challenges, and developing and workshopping models to address the identified challenges.

While the hypothetical projects are based on real projects that relate to particular local authorities, the intention is that the models address common issues across the Eastern Bay of Plenty sub-region, and throughout New Zealand.

The partners to this Study are presented below.



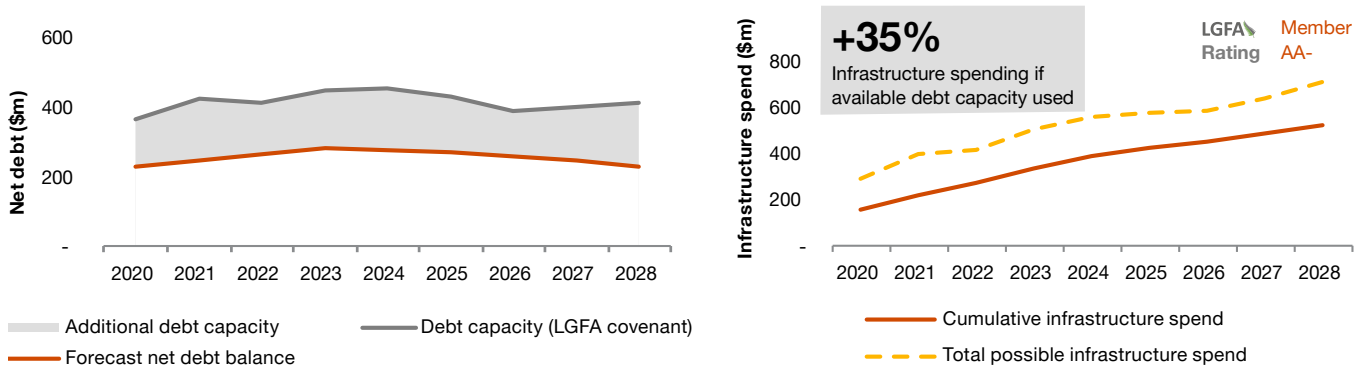


# Financial snapshot

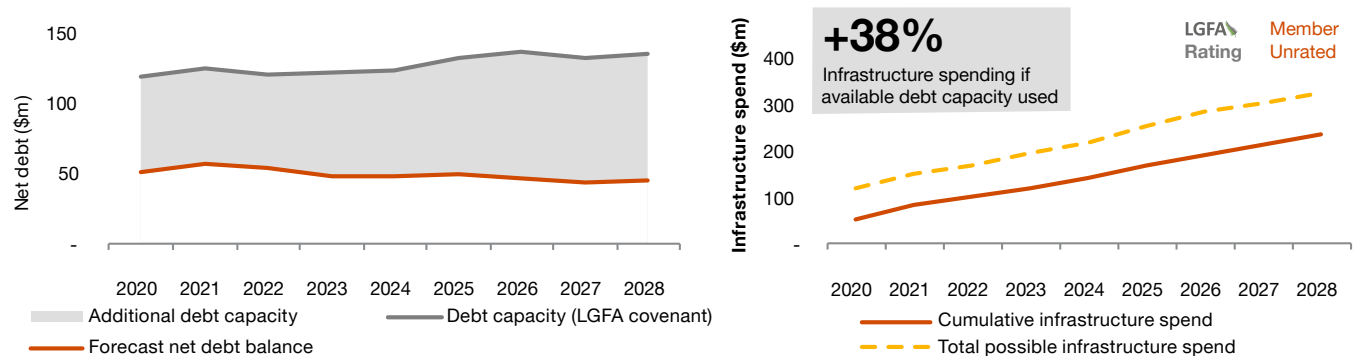
For a number of local authorities, balance sheet capacity and debt headroom are constraining investment in infrastructure. Internal borrowing limits are typically lower than external (e.g. LGFA) limits, and therefore the primary constraint to borrowing. The figures below outline the indicative debt capacity for each of the assessed local authorities based upon the 2018-28 LTPs.

However, rates affordability is generally a more significant issue for local authorities in the sub-region, which is discussed on page 10.

## Rotorua Lakes Council

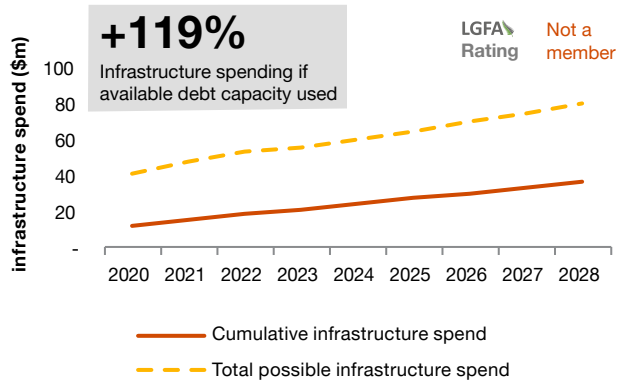
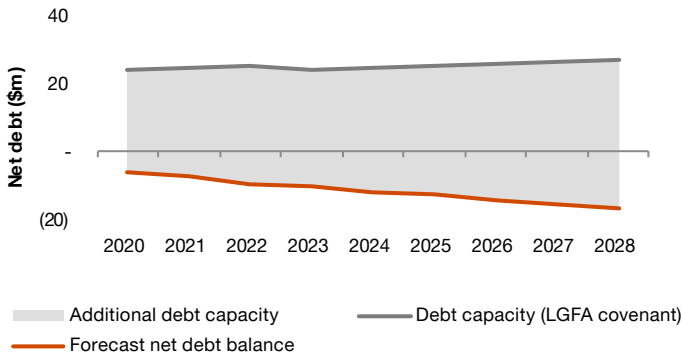


## Whakatāne District Council

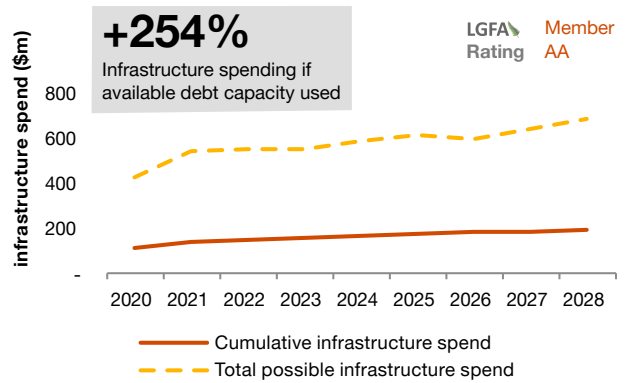
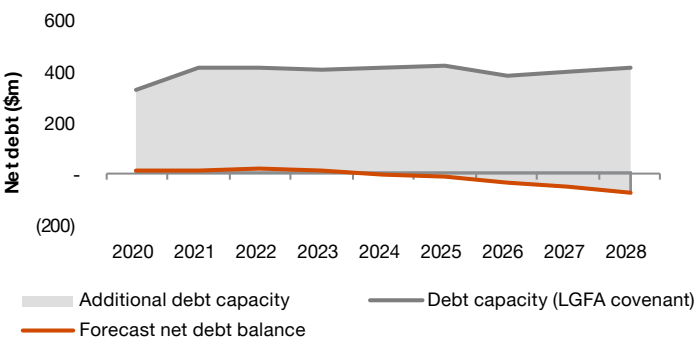


\*Debt capacity calculations are solely based on the LGFA alternative net debt to total revenue foundation policy covenants and lending policy covenants, which were updated earlier this year.

### Kawerau District Council\*\*



### Bay of Plenty Regional Council



\*\*Kawerau District Council is not a member of the LGFA, with debt capacity assuming it becomes a guarantor/member.

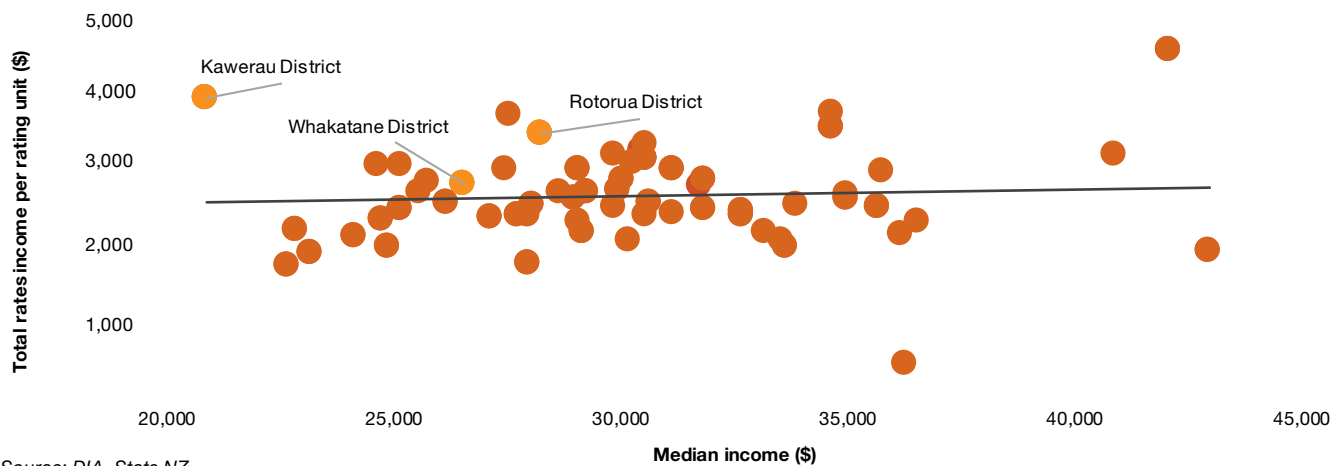
# Affordability constraints

For many local authorities in New Zealand, rates affordability is the most significant constraint to delivering infrastructure. Rates affordability is typically driven by two factors:

- **Ratepayer capacity** – ratepayer capacity is the ability for ratepayers to generate income to meet the rates payment. Median income and the level of deprivation are two key indicators when assessing ratepayer capacity.
- **Rateable base** – rateable base is the number of ratepayers in the district that can contribute to the cost of infrastructure.

Many districts in the Eastern Bay of Plenty have both a low rateable base and limited ratepayer capacity. Accordingly, affordability is a key constraint to delivering infrastructure.

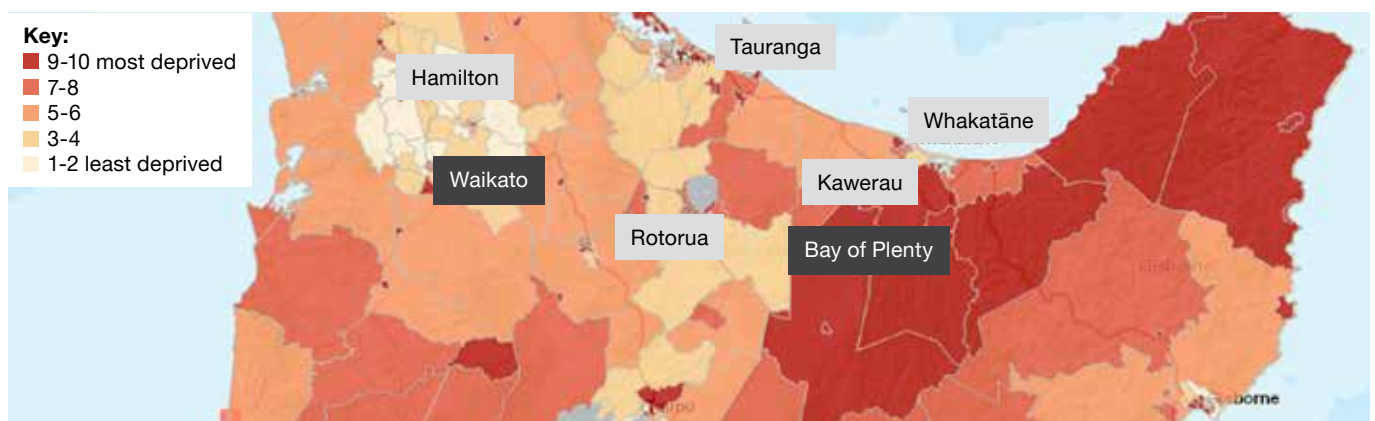
## Total rates income per rating unit and median income



Source: DIA, Stats NZ

Total rates income per rating unit per dollar of income for the Eastern Bay of Plenty districts is higher than the national average, which indicates the current rates are less affordable in these districts, and therefore there is likely to be less capacity to increase rates.

## New Zealand Index of Deprivation



Source: Massey University, University of Otago

A high degree of relative deprivation is evident across the Eastern Bay of Plenty, particularly in the Kawerau District and inland areas of the Whakatāne District, which implies a lower level of ratepayer capacity.

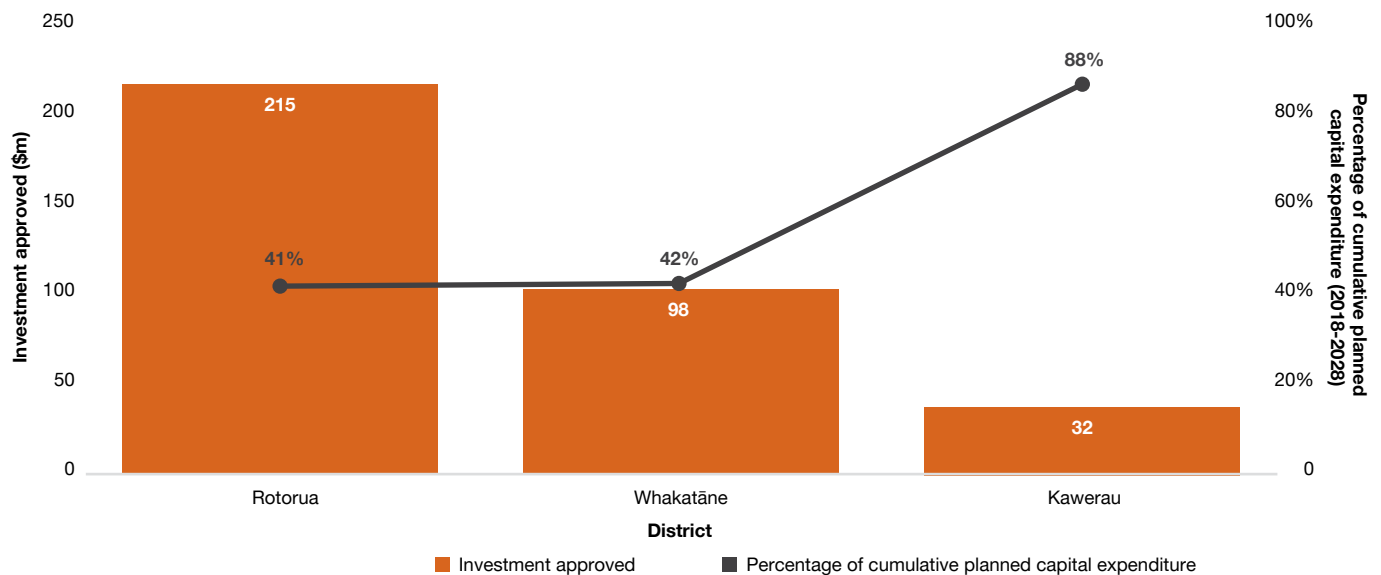
# Crown investment

The Crown, primarily through the Provincial Growth Fund and the COVID-19 Response and Recovery Fund, has recently provided ~\$345m of investment into the Rotorua-Kawerau-Whakatāne sub-region with the objective of catalysing growth and economic development. To put this in perspective, the total collective planned capital expenditure included in the LTPs of the three territorial authorities in this Study is ~\$780m. The Crown is also providing further funding to territorial authorities who agree to be involved in the first phase of the Three Waters Reform Programme. This investment will support and accelerate a range of public and private initiatives in the sub-region, including local authority infrastructure projects.

To fully realise the growth and economic benefits from the investment, supporting infrastructure (e.g. for housing developments) will also be required. The Crown has demonstrated a willingness to support territorial authorities in this (e.g. Kāinga Ora’s housing partnership with Ngati Whakaue), however responsibility for the delivery of supporting infrastructure will continue to primarily sit with territorial authorities.

For these projects to be successful, territorial authorities will need to leverage alternative delivery models, which address some of the challenges faced. Cross-regional opportunities, which provide economies of scale, co-funding, shared learning and procurement efficiencies should also be identified and appropriately considered.

## Crown investment in the region



Source: 2018 Long Term Plans, Provincial Growth Fund, COVID-19 Response and Recovery Fund

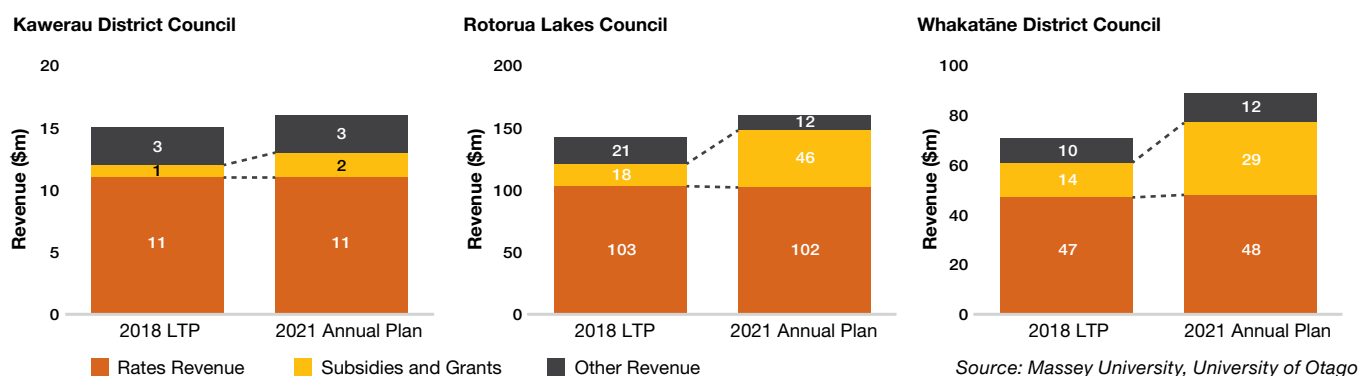
# COVID-19 financial impact

Local authorities throughout the country are facing varied financial impacts as a result of COVID-19. While revenues have been impacted, in particular for councils more heavily reliant on non-rates revenue, there has been a significant Crown response (refer previous page). The COVID-19 Response and Recovery Fund has been established with \$3 billion set aside to fund a selection of 'shovel-ready' infrastructure projects across the country, with the majority putting money back into local authorities. In order to assess the impact of COVID-19 on the local authorities in this Study, revenue, capital expenditure and debt forecasts in FY21 Annual Plans have been compared to 2018 LTPs.

## Revenue impact

Local authority revenues are expected to be slightly stronger in FY21 when compared to LTP forecasts. However, this is driven by a significant increase in subsidies and grants (~125% average increase across the three territorial authorities assessed below). Rates Revenue and Other Revenue (e.g. fees and charges) is relatively consistent between Annual Plans and LTPs, with the exception of RLC.

### Revenue derived by local authority

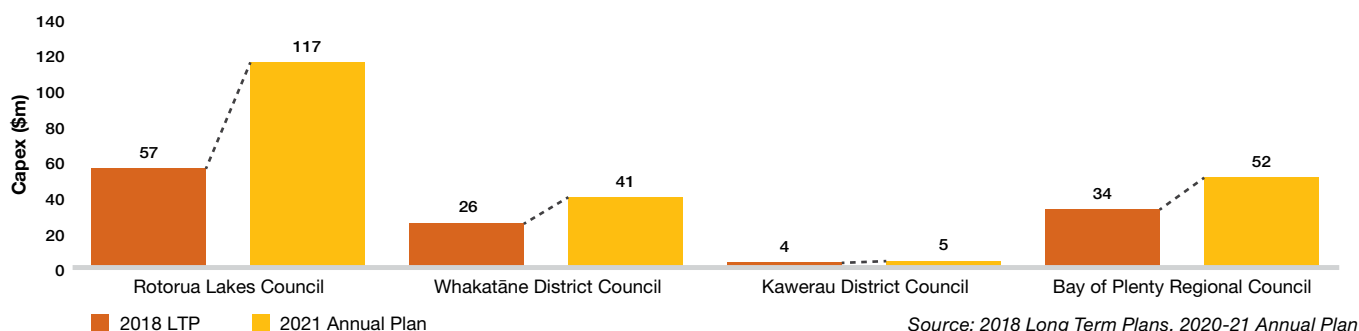


## Impact on capital expenditure

Estimated capital expenditure during FY21 is significantly higher (~60% average increase) in Annual Plans than in LTPs, which is consistent with the current environment, where there is a general focus on stimulating growth and economic recovery through capital spending.

This increase in capital expenditure is likely to be (in part) supported by the increase in subsidies and grants (refer above), with a key objective of Crown COVID-19 support being to increase short term local government spending (e.g. 'shovel ready' projects).

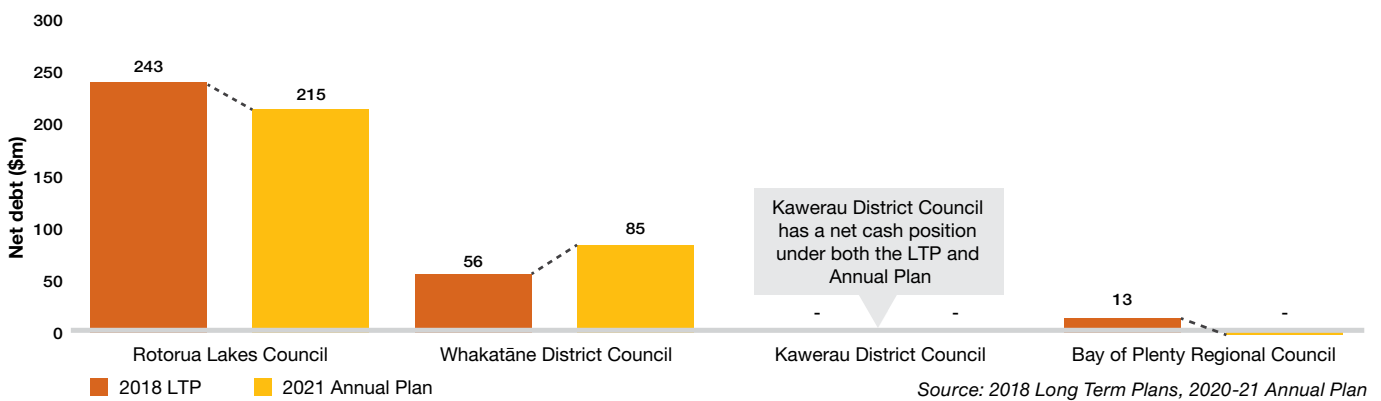
### Capex spend by local authority



### Impact on net debt

Net debt is also estimated to be higher under the Annual Plans (when compared to LTPs) for the majority of local authorities assessed in this Study. The increase in net debt is consistent with the revenue and capital expenditure analysis, where there was a greater increase (on a nominal basis) in capital expenditure compared to revenue. The implication is that debt funding is expected to be utilised to fund a proportion of the increased capital expenditure.

### Net debt by local authority



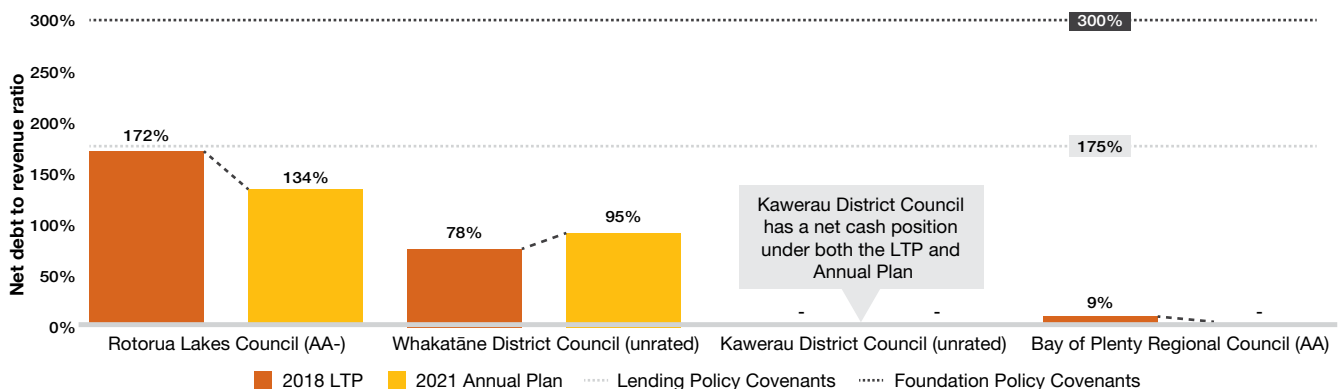
### Net debt to revenue ratio

Local authorities borrowing through the LGFA are required to comply with a number of financial covenants. Typically, local authorities are most constrained by the net debt to revenue ratio, which is presented in the figure below. The LGFA has set two standard covenant levels for the net debt to revenue ratio:

- **Foundation Policy Covenant:** local authorities with a credit rating of ‘A’ or above (RLC, BOPRC). Covenant set at 300% for 2021.
- **Lending Policy Covenant:** local authorities without a credit rating, or those that have a credit rating below ‘A’ (WDC). Covenant set at 175% for 2021.

As evident from the figure below, none of the local authorities assessed under this study are near covenant levels, even following the increase in net debt between the forecasts in LTPs and Annual Plans.

### Indicative net debt to revenue ratios by local authority

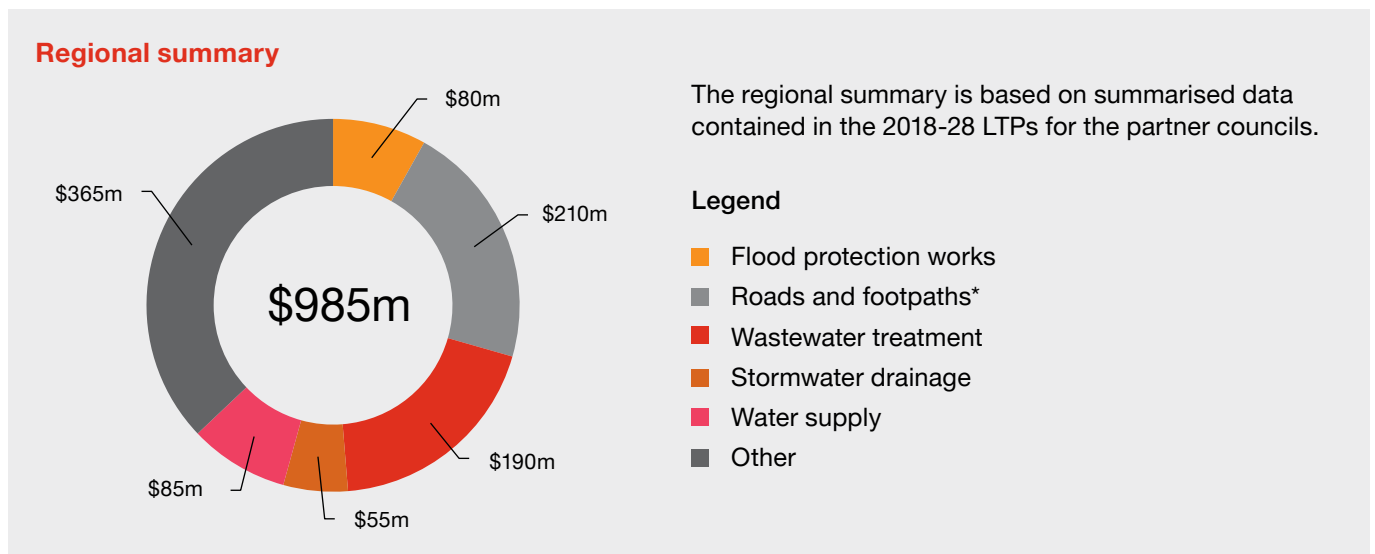


The indicative net debt to revenue ratios do not reflect LGFA adjustments, other than removing developer contributions from total revenue. Source: 2018 Long Term Plans, 2020-21 Annual Plan, LGFA

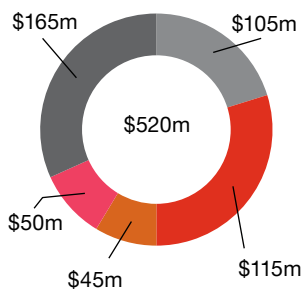
# Infrastructure landscape

Total infrastructure expenditure over the 2018 to 2028 LTP period across the Study councils is forecast to be ~\$1bn. Approximately 34% of planned expenditure relates to investment in three waters (~\$330m), which is based on estimates prior to the new water quality regulatory environment, and therefore may underrepresent the true investment required. ~\$365m is forecast to be spent on 'other' infrastructure, which includes economic and community developments (e.g. funding for the waterfront development in Rotorua). At a regional level, flood protection is the most significant contribution, equating to ~60% of BOPRC's expenditure.

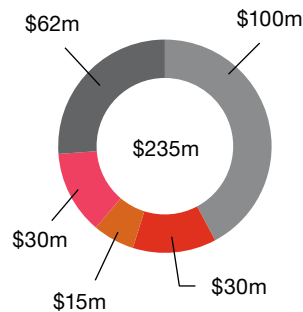
The figures below present local authority forecasts developed for LTPs in 2018 and may not reflect potential changes to the three waters regulatory environment or potential COVID-19 impacts.



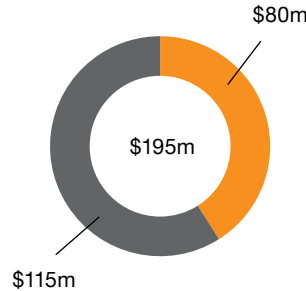
**Rotorua Lakes Council**



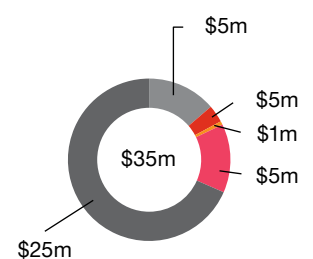
**Whakatāne District Council**



**Bay of Plenty Regional Council**



**Kawerau District Council**

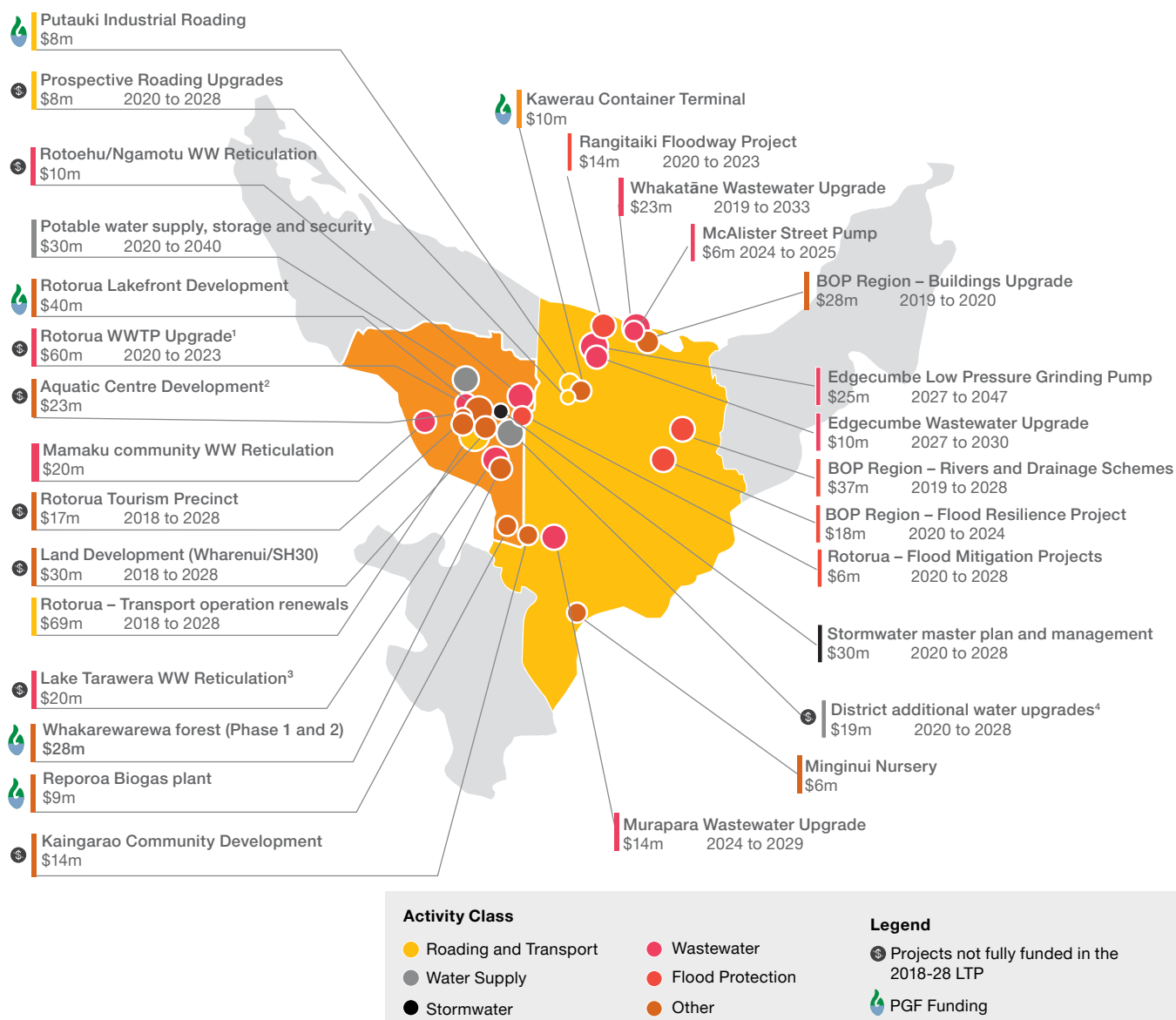


Source: DIA – Local authority LTP financial tables

\*Roads and footpaths based on DIA classification and includes all transport spending

Based upon the information provided by participating local authorities ('shovel ready' project applications, LTPs, etc.), the following longlist of projects was developed. To be considered on the longlist, projects needed to have regional or sub-regional significance and address challenges that were faced by local authorities across New Zealand. An overview of the longlist is provided in the figure below.

### Regional map with selected capital projects



#### Notes

<sup>1</sup> Included as a CIP 'shovel ready' project with indicative cost of \$60m, noting \$35m of funding included in the 2018-28 LTP

<sup>2</sup> Included as a CIP 'shovel ready' project, LTP includes funding for stage 1 of the Aquatic Centre (\$9.6m) with stage 2 funding yet to be confirmed

<sup>3</sup> Lake Tarawera reticulation upgrades proposed in Infrastructure Strategy with funding not confirmed within the 2018-28 LTP period

<sup>4</sup> Water upgrades included in Infrastructure Strategy with funding not confirmed within the 2018-28 LTP period

# Shortlist selection criteria

Projects were selected as case studies for the Study through application of the following selection criteria.



## Opportunity for private involvement

The project will allow for the inclusion of private participants to reduce the capital and/or management burden on councils and provide opportunities for local interests including iwi.



## Not business as usual

The project is likely to have difficulty securing funding through traditional means.



## A range of projects

The project concerns an infrastructure type not considered elsewhere in the Study.



## Opportunities for other regions

The project has challenges that exist in other regions in New Zealand, where the solution(s) identified could be applicable.



# Shortlisted projects

Based on the previously identified selection criteria the following projects were shortlisted. A brief summary of the projects and how they meet the selection criteria is presented below.

## Wastewater integration

**\$50m+**  
estimated capital delivery costs

Replacement of the septic tank wastewater systems in Matatā and Te Teko through integration with existing reticulation networks and upgrades to the Edgecumbe and Whakatāne wastewater treatment plants.



Opportunity for regional council and iwi partnership.



Potential efficiencies through scale compared to traditional procurement.



Significant investment in Three Waters infrastructure required nationally.



Wastewater upgrades are a key requirement for Whakatāne, exceeding available funding.

## Flood protection

**\$30m+**  
enabling infrastructure only

Delivery of a programme of flood protection projects across the Bay of Plenty region, including development and improvement of floodways, and general improvements to existing piped network and open watercourses.



Opportunity to strengthen partnerships between the regional and territorial authorities, iwi and the private sector.



Opportunity to consider how wider benefits may be unlocked through flood protection infrastructure.



Risks associated with flooding and extreme weather events are increasingly becoming an issue across New Zealand.



Flood protection provides an opportunity for regional collaboration.

### Housing development

**\$50m+**  
estimated capital delivery costs

Housing and industrial development on land owned by Ngāti Whakaue Tribal Lands (NWTL) and Rotorua Airport, including enabling roading and storm water infrastructure.



Opportunity to unlock iwi owned land for development and to introduce private capital.



Development may not proceed without intervention.



Funding enabling infrastructure for development is a common issue across regions.



Housing and industrial land shortages are key challenges facing Rotorua.

### Industrial development

**\$35m+**  
estimated capital delivery costs

Development of transportation infrastructure for the Putauaki Trust Industrial Hub, including the addition of a rail connection and improved roading access.



Opportunity to collaborate with Māori land owner and attract private businesses/investment.



Requires a focus on tenant identification and incentivisation.



Many regions face challenges in encouraging economic growth.



Kawerau needs to attract businesses to drive growth.

### Commercial and tourism development

**\$20m**  
estimated capital delivery costs

To develop supporting infrastructure to improve the tourist experience in Rotorua and the surrounding region. Includes the development of a tourist precinct and further development of Whakarewarewa forest.



Opportunity for planned approach with iwi and for private investment in commercial opportunities.



A need for collaboration, with unique challenges imposed by COVID-19.



Tourism is facing similar challenges across regions.



Tourism is a key industry for Rotorua.

## Wastewater integration

# Sector overview

WDC is responsible for the delivery, operation and maintenance of wastewater services in the district, including any associated funding, financing and procurement.

Currently, six separate wastewater schemes are operated in the district, which services ~75% of the population. Other communities in the district (e.g. Matatā and Te Teko) do not have a reticulated wastewater collection system, instead relying on septic tanks.

### Key issues with the existing wastewater network:



#### Regulatory change

Changing regulatory and resource consent standards will likely require upgrades to much of the wastewater network. Resource consents for four schemes expire over the next decade.



#### Ageing infrastructure

~\$100m renewal programme forecast over the next 30 years across the water and wastewater networks to address ageing infrastructure (average pipe age is ~41 years).



#### Resilience / extreme weather events

The impact of extreme weather events on the current sewage systems is expected to become more severe and more frequent as a result of climate change.



#### Affordability

Small number of rateable units and a higher deprivation rating exacerbating affordability constraints, particularly for some of the rural schemes (e.g. Matatā)

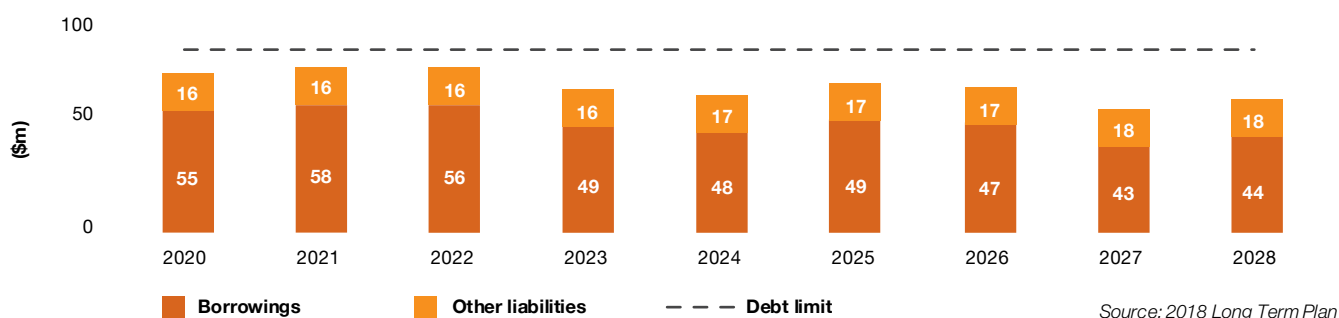
### Wastewater summary – Whakatāne district

	Number of connections	Asset valuation (ODRC, \$m)	Expected growth	Capacity (permanent population)	Average pipe age
Whakatāne	6,257	26.3	↑	18,500	39.4
Ōhope	1,432	11.2	↑	4,500	32.4
Murupara	563	1.8	→ / ↓	4,000	53.3
Edgecumbe	644	4.8	→ / ↓	3,000	45.2
Tāneatua	286	1.6	→ / ↓	2,000	44.2
Te Mahoe	29	0.4	→ / ↓	150	31.5
Matatā	No existing reticulation network				
Te Teko	No existing reticulation network				

# Financial constraints

WDC's financial strategy includes a self imposed debt limit (\$80 million) and restriction on rates increases (as set out below). There is limited room under these limits, which may constrain expenditure on infrastructure.

## Whakatāne District Council's implied debt capacity



A key driver of the WDC's financial strategy is balancing rates affordability against delivering high quality services that meet social, environmental and health and safety standards. Affordability issues relate primarily to the following demographics of the Whakatāne district.



### Socio-economic vulnerability

Many areas have high deprivation levels (e.g. Matatā has a deprivation index of 91), limiting capacity to fully recover costs through rates.



### Few rateable properties

High cost of delivering infrastructure per property due to the low number of rateable units (~16,000), particularly in small rural communities (e.g. Matatā).

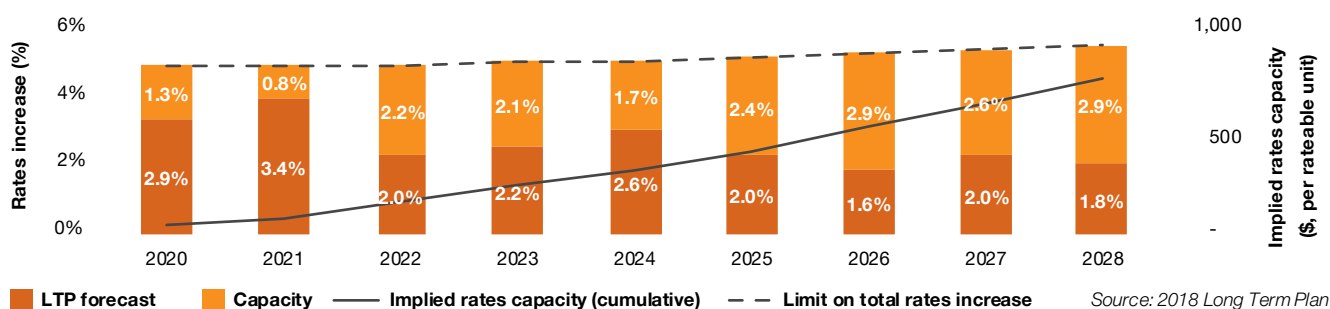


### Static population

Forecasts for relatively static population (~0.5% growth p.a.), with rural areas likely to experience declining populations.

To assist with affordability, renewal reserve funds and debt funding are utilised to spread infrastructure costs over the longer term (typically 30 years). However, annual rates increases have a self imposed limit, which, when combined with other factors such as debt limits, restricts the extent of renewal/capital works that can be undertaken. Under the self imposed rates limit there is limited capacity to increase rates from the 2018 LTP, as outlined in the figure below.

## Whakatāne District Council's implied capacity to increase rates



# Addressing sector challenges

## Sector challenges

Local authorities are facing a number of challenges to the delivery of three waters services, particularly in districts where population and density are low.



### Investment requirements

Changing regulatory standards, infrastructure deficits and expiring resource consents requiring significant investment over the next decade.



### Lack of scale

Insufficient size/scale attainable through delivering a number of small individual projects across six geographically distinct wastewater schemes in the Whakatāne district.



### Funding and affordability

Territorial authorities are increasingly facing balance sheet and funding constraints, while ratepayers are facing consistent rates increases. These issues are accentuated in districts where there is only a small ratepayer base.

## Whakatāne wastewater upgrades – delivery of an integrated wastewater network?

The Whakatāne wastewater upgrades programme seeks to address these challenges through integration of the Matatā, Te Teko, Tāneatua, Whakatāne and Edgecumbe wastewater schemes into a single wastewater network.

Cost and efficiency benefits can be realised through the scale and synergies that an integrated approach provides.

## Questions for this study

The model proposed seeks to leverage the benefits of scale to deliver an affordable, integrated wastewater network, which can support future growth and urban regeneration in the region.

As a model for future similar projects, this study will focus on how funding, financing and delivery structures can optimise the packaging of a number of smaller projects into a pipeline of work – specific considerations will include:



### Governance and control

How do you balance the advantages of delivering sub-regional projects against the potential reduction in control?



### Delivery and implementation

How can a programme of works be procured to optimise benefits and appropriately allocate risk, while achieving value for money, and how can the benefits of scale be best leveraged to ensure that the project attracts market-leading expertise?



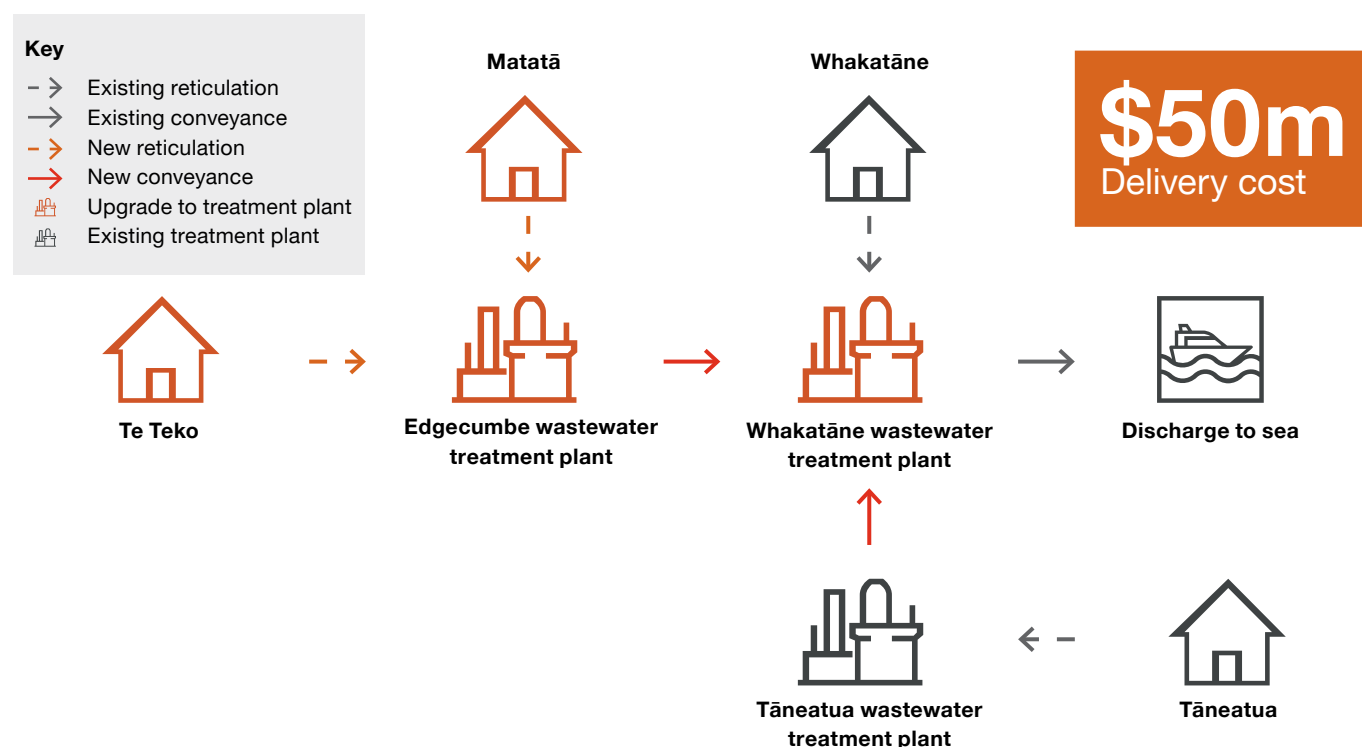
### Funding and affordability

How can the financial impact on the local authority and individual ratepayers be minimised, and how can funding be structured to be as equitable as possible?

# Whakatāne wastewater upgrades

## Project overview

Replacement of the septic tank wastewater systems in Matatā and Te Teko and integration of the existing Edgecumbe, Tāneatua and Whakatāne reticulation schemes. Upgrades to improve the Whakatāne treatment processes prior to discharging into the sea would also be included to minimise the environmental impact of the higher wastewater volumes associated with the project.



## Potential project benefits

### Higher levels of service

Opportunity to improve the level of service for ratepayers, particularly those currently relying on septic tanks systems, through access to an integrated reticulation network.

### Environmental outcomes

Eliminates the need for the septic tank systems in Matatā and Te Teko, which are delivering poor environmental outcomes. By integrating the schemes a greater proportion of wastewater would be processed through the Whakatāne plant, which operates to a higher environmental standard than the Edgecumbe plant.

### Unlock iwi land and investment

Iwi own and control a large proportion of the land that would be activated through access (or improved access) to a reticulated wastewater network, providing an opportunity for iwi to activate land and change land use.

### Increases the ratepayer base

The costs associated with delivering wastewater services across the integrated network would be shared across a larger ratepayer base, which along with potential efficiencies should assist with reducing the rates burden on individual ratepayers.

# Structuring tools

This model is focussed on leveraging the collective scale of the five coastal schemes in the Whakatāne district and the Kawerau wastewater scheme to deliver cost and efficiency benefits. Commercial agreements with industry are proposed to reduce the funding burden on the local authorities and ratepayers, while infrastructure agreements with iwi land owners can support value creation and urban regeneration in the area.



## Delivery structure

### Council delivery

New entity
<b>Partnership</b>
Joint procurement
Traditional delivery

### Crown delivery

Stakeholder
Partnership
Shareholding
Crown delivery

### Private delivery

<b>Service provider</b>
Partnership
New SPV entity
Full privatisation

### Iwi involvement

Project sponsor
<b>Partnership</b>
Shareholding
Iwi delivery



## Funding sources

### Council funding

<b>General rates</b>
<b>Targeted rates</b>
Developer contributions

### Crown funding

Crown grant
Seed capital
<b>Specific Crown funds</b>

### Value capture

<b>Negotiated contribution</b>
Land intervention
Property development
IFF levy

### Direct

Private capital
<b>Commercial opportunity</b>
Tax/duty
User pays



## Financing sources

### Public finance

DMO (Crown facility)
Crown loan
<b>LGFA</b>
Crown equity

### Private finance

Bank debt
Bonds/private placement
Subordinated/convertible instruments
Private equity



## Capital delivery

### Commercial model

Alliance contract
Construct only
Design and build
Managing contractor
<b>Enterprise model</b>
Design, build, operate, maintain
Design, build, finance, operate, maintain
Turnkey



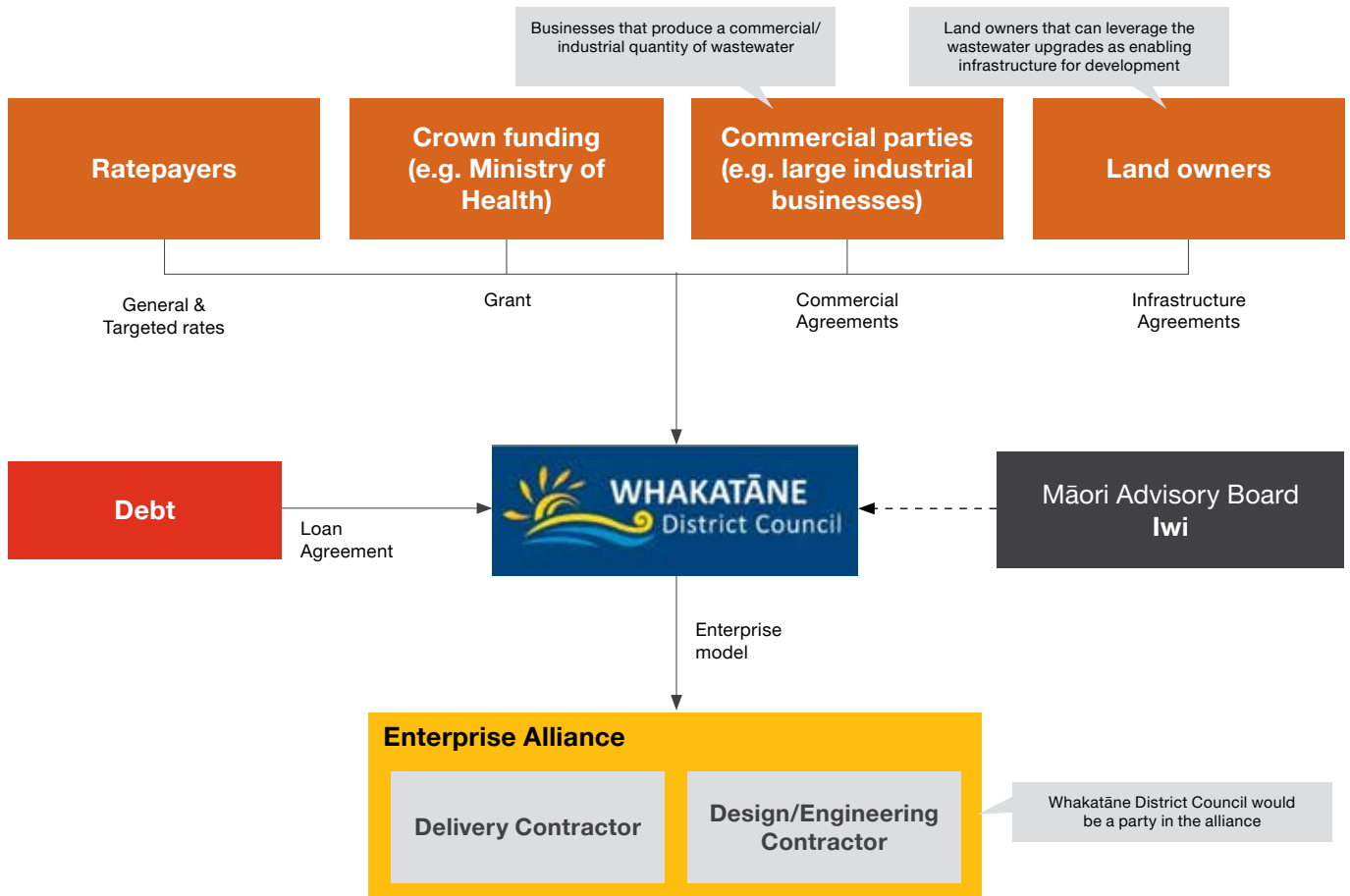
## Operations delivery

### Commercial model





Self perform
Operate only
Operate and maintain
Design, build, operate, maintain
Design, build, finance, operate, maintain
Turnkey

# Proposed model

## Commercial structure diagram



## Core contracts

Contract	Parties	Description
1. Enterprise Agreement	 Delivery Contractor Design/Engineering Contractor	The Enterprise Agreement will provide for the following: <ul style="list-style-type: none"> <li>• Design</li> <li>• Delivery</li> <li>• Risk allocation</li> </ul> It will include an outcomes based payment and performance mechanism.
2. Loan Agreements	 	Standard LGFA contracts when borrowing through the LGFA.
3. Commercial Agreements	 	Agreement for capital contributions (upfront or ongoing) in exchange for enhanced wastewater services.
4. Infrastructure Agreements	 	Agreement with land owners for long term levies on developed land, funded through an encumbrance (levy on the title of the sections or targeted rate).

## Explanation and evaluation



### Delivery, capital and operations structure

#### Enterprise Alliance

- The Enterprise Alliance would be made up of the delivery contractor, design/engineering contractor and Whakatāne District Council.
- The enterprise model is a long term collaborative model, where all partners work as one team and risks are shared (where possible).
- The Enterprise Alliance would be responsible for business case preparation (if required), detailed design and delivery of the integrated wastewater network.
- There is an opportunity to extend the alliance to include operation, maintenance and/or renewals associated with the integrated wastewater network.

#### Payment mechanism

- Reimbursable costs charged on a time and materials basis (uncapped).
- Profit margin paid, at a pre-agreed rate, above reimbursable costs up to the Target Outturn Cost.
- An additional outcomes based payment/abatement will also available based on performance against pre-agreed outcomes. Local and iwi training/development initiatives, social and environmental considerations, and commitment to the local supply chain may all be assessed as outcomes.

#### Māori advisory board

- A Māori Advisory Board could be established to provide a collaborative interface between the Whakatāne District Council and iwi.
- The Māori Advisory Board may also be leveraged to assist with unlocking iwi land and investment, through assisting with negotiating the infrastructure agreements and assisting with the identification of potential development opportunities.

### Features of the proposed structure include:

- ✓ Collaboration between public and private sector parties to **incentivise 'best for project' thinking, improved health and safety and environmental performance and innovation.**
- ✓ Early contractor involvement (through contractor involvement during the business case and design phase) to leverage the **collective expertise of the public and private sector**, and provide **opportunities for private sector innovation** from the outset.
- ✓ **High degree of iwi involvement** through the Māori Advisory Board, ensuring Māori interests in the management of natural resources are appropriately considered. It also provides enhanced **opportunities to unlock iwi land and investment.**
- ✓ Procuring the programme of works as a single package to deliver **enhanced scale**, provide opportunities for **efficiencies**, and **optimise market interest.**
- ✓ Risk sharing mechanism **enhances market interest**, promotes contractor solvency, and can allow an **outcomes based approach to payment/performance regimes.**



## Funding and Financing

### Land owners

To the extent integration and upgrades to the wastewater network enable growth and/or land use change, a contribution would be sought from land owners.

- An encumbrance model is proposed to fund these contributions, where a long term annual levy, beginning after a certain period, is included on the title of each of the developed sections.
- Allows for a targeted, long term annual levy to be set at the outset, which provides revenue certainty over the long term.
- Specific mechanisms within the levy (e.g. grandfathering) can be utilised to mitigate the cash impact on land owners.
- Alternatively, a targeted rate could also be used.

### Commercial parties (e.g. large industrial businesses)

Commercial parties will contract with Whakatāne District Council to provide external funding assistance in exchange for improved provision of wastewater services.

- Typically, a high proportion of the costs associated with delivering wastewater services is fixed, and therefore opportunities to leverage economies of scale may be available through including commercial parties in the arrangement (e.g. where an industrial business would otherwise need to manage wastewater services itself).
- Introducing commercial parties early in the business case phase will optimise potential opportunities through greater flexibility in project scope/design.
- Commercial party funding could be structured as a combination of upfront capital and/or ongoing payments.

### Crown funding (e.g. Ministry of Health)

Where possible, Crown grant funding will be leveraged to mitigate the burden on ratepayers. One potential source is the Ministry of Health, which has supported other wastewater projects in New Zealand.

### Debt

Borrowing through the LGFA is likely to be the most cost effective source for WDC, and is therefore the recommended approach where balance sheet constraints are not an issue.

Alternative financing mechanisms such as the IFF levy model, which would be 'off-balance sheet' may be considered, where debt constraints are prohibitive. However, these models rely on a high degree of funding certainty at the outset, and are expected to be more expensive than borrowing through the LGFA.

### Features of the funding and financing solution:

- ✓ Leveraging a number of different funding sources to **mitigate impact on individual ratepayers.**
- ✓ Encumbrance model utilised to imbed the cost of the landowner contributions over time, **without driving house prices higher or disincentivising development.**
- ✓ Commercial opportunities utilised to **reduce burden on local authorities** and ratepayers.
- ✓ Early private sector involvement to drive **efficiencies, economies of scale and innovation.**

# Project extension

The following is a hypothetical extension of the Whakatāne wastewater upgrade project. It explores how local authorities can work together to jointly deliver outcomes for their communities.

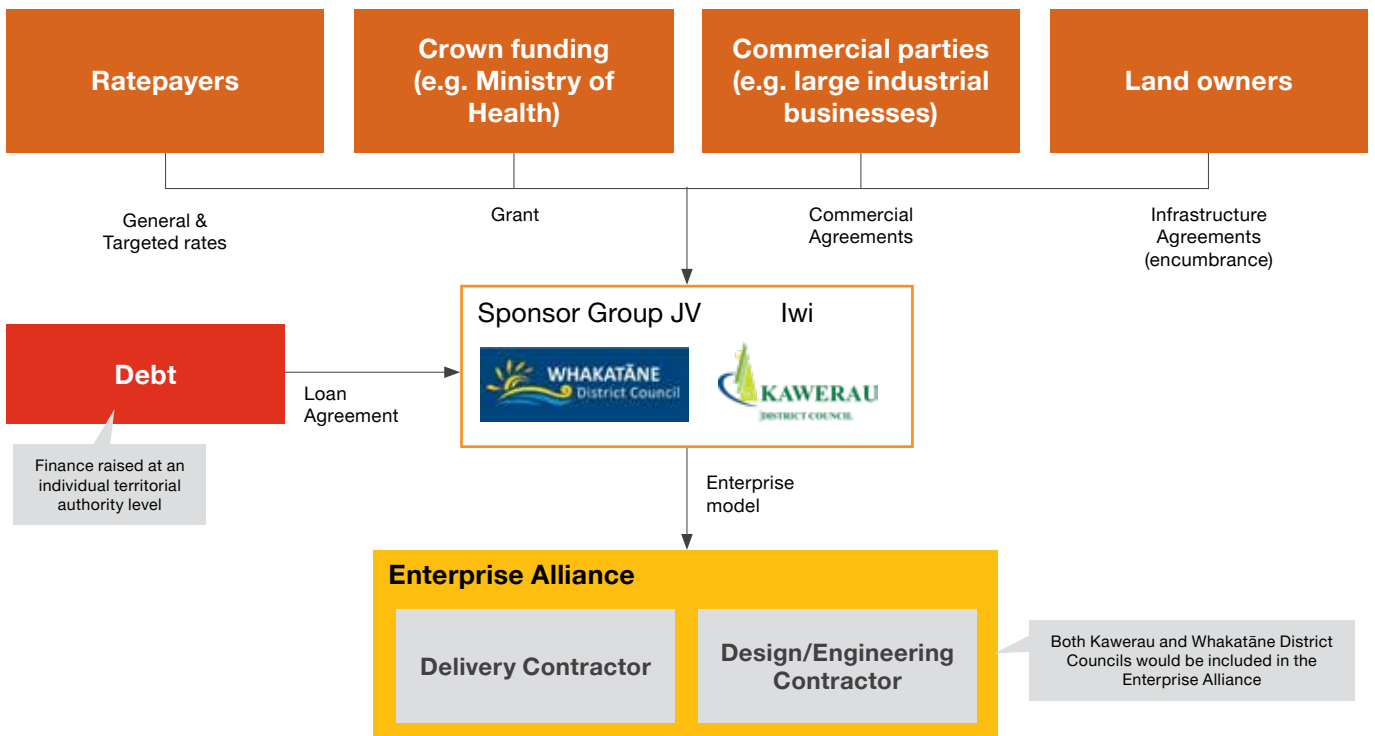
By partnering together to jointly deliver projects and/or programmes of work, local authorities can address some of the challenges associated with delivering infrastructure, including economies of scale, affordability and debt constraints.

An opportunity for cross-territory collaboration may be integrating Kawerau’s wastewater network with Whakatāne’s network to share the associated costs, leverage shared expertise and experience, and potentially realise synergies and efficiencies.

The commercial structure diagram and supporting table outline the proposed delivery structure (including governance framework) that would support an integrated project. A similar structure could also be utilised to jointly procure a programme of works that did not include physical integration of the respective wastewater schemes.

This extension is entirely hypothetical in nature, and does not suggest that integration of the two schemes should be undertaken. No technical assessment has been undertaken in relation to this Study.

## Commercial structure diagram



### Sponsor Group JV

- Establishment of an unincorporated (contractual) joint venture delivery vehicle ('Sponsor Group JV') to manage the delivery of the integrated wastewater network.
- The JV is governed by a board made up of a Whakatāne District Council, Kawerau District Council and iwi representatives.
- Contracting party for the Enterprise Alliance, commercial agreements and infrastructure agreements.



## Case study

### Watercare – Enterprise Model

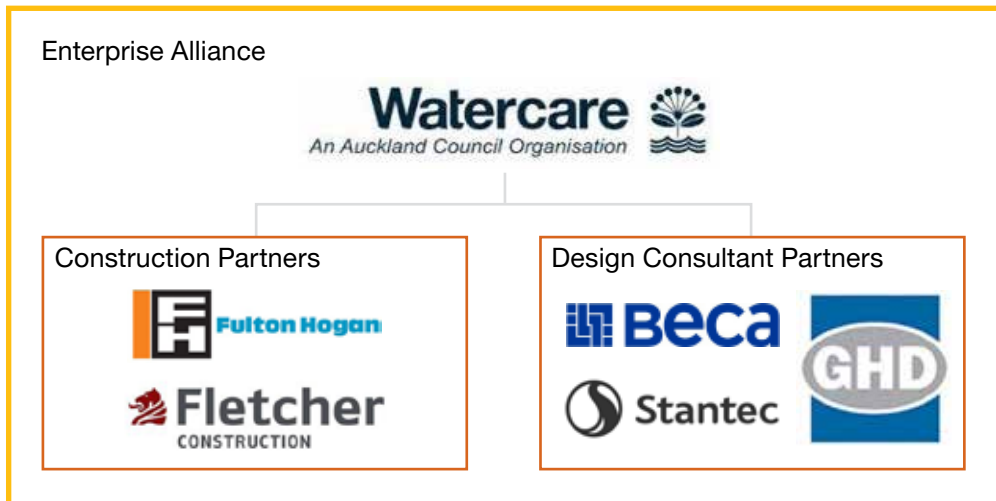
The Enterprise Model was developed by Watercare to transform the delivery of construction projects (especially maintenance and renewals), by procuring a pipeline of projects under a single programme package and integrating the delivery of projects with the business case and design phases.

Watercare procured two Construction Partners (Fletcher Construction and Fulton Hogan) and a panel of Design Consultant Partners (Beca, GHD Advisory and Stantec) to deliver its ten-year Asset Management Programme (~\$2.4 billion) as a single programme of works. Partners were procured under an ‘alliance style’ contract, where risks were shared (where possible) between the parties.

Non-financial outcomes are a core part of the performance mechanism for the Enterprise Model, with carbon reduction and improved health and safety targets included. A greater opportunity to deliver these outcomes is provided by integrating delivery with the business case and design phases. This is demonstrated by the Carbon Reduction Hierarchy, which suggests carbon reduction potential is highest during the planning and design phases.

A robust monitoring and feedback framework is utilised to support continual improvement. Under this framework, Delivery Partners are encouraged to provide regular feedback and incentivised to identify opportunities for innovation across all phases of the project lifecycle. The focus on knowledge transfer is designed to support a level of optimisation across the programme that would not be possible under traditional procurement methodologies.

### Commercial structure



## Case study

### Wellington Water

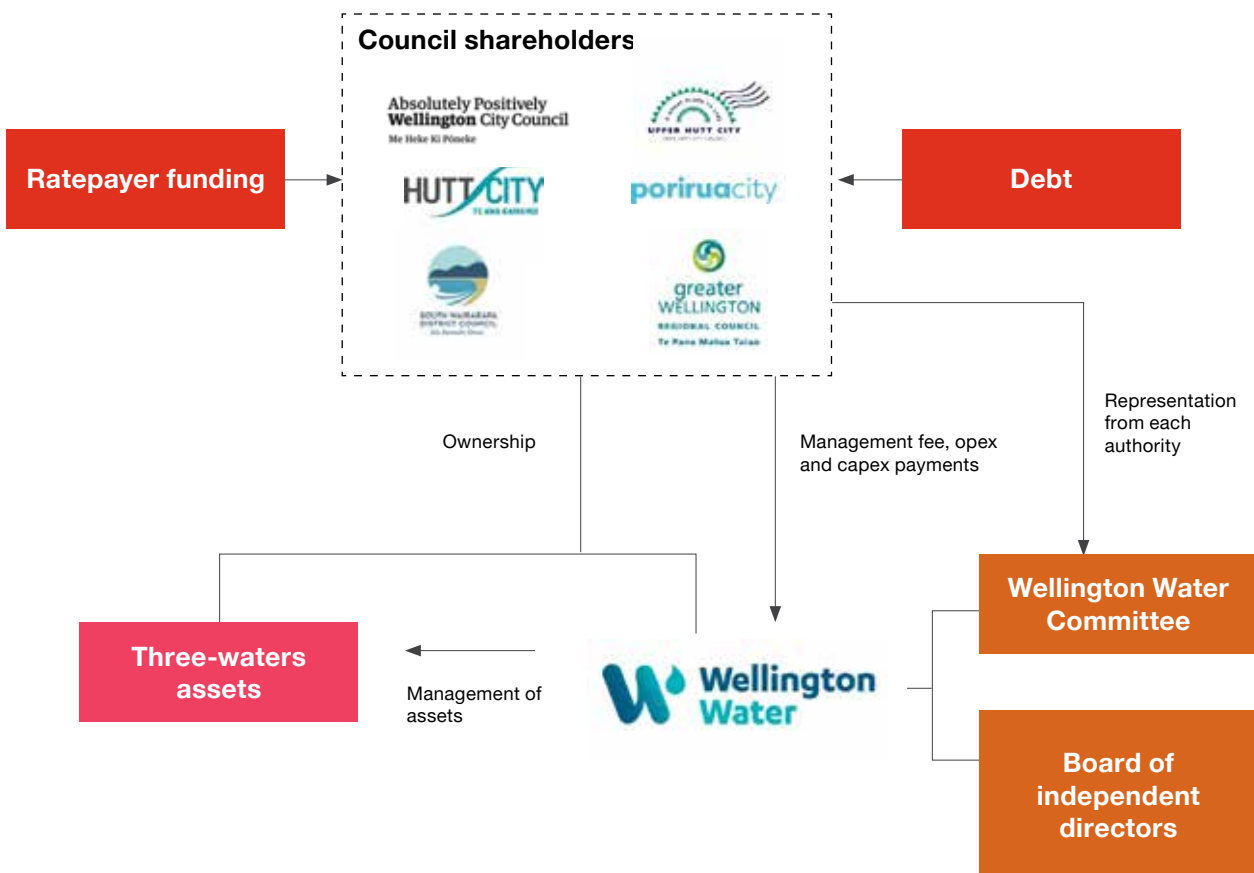
Wellington Water was established in 2014 as an organisation to manage the drinking water, wastewater and stormwater services for six council shareholders, the Hutt, Porirua, Upper Hutt and Wellington City Councils, South Wairarapa District Council and Greater Wellington Regional Council.

A representative from each authority sits on the Wellington Water Committee that provides overall leadership and direction for the company. The company is governed by an independent board of directors.

With around 200 full time employees, Wellington Water represents the largest body of expertise in water infrastructure services management in New Zealand outside of Auckland. The shared service approach delivers benefits to shareholders and their communities through cost savings, resilience and expertise that individual councils could not achieve on their own.

Wellington Water does not own any water assets and do not set policies or control rates or user charges, these functions remain with the council shareholders. Wellington Water service and manage three waters assets on behalf of their council shareholders who pay a management fee as well as reimbursing operating and capital expenditure costs.

#### Commercial structure



## Flood protection

# Sector overview

### Flood protection in the Bay of Plenty

Flooding has increasingly become a significant issue across New Zealand, with the frequency and cost of floods rising over the past decade.

The Bay of Plenty region is particularly susceptible to flooding due to the presence of flood plains and major rivers in inland areas and low lying land in coastal areas. An increase in the frequency and intensity of extreme weather events has exacerbated this risk.

There is a degree of overlap between the responsibilities of territorial authorities and regional authorities, which presents partnership opportunities to improve co-ordination of flood protection works across the region. This is recognised by the Regional Flood Risk Management Framework, which recognises a “joint responsibility” for regional and territorial authorities.

An overview of the current roles and responsibility in relation to flood protection is provided in the table below.

#### Factors increasing flooding risk

Three key factors have made the Bay of Plenty Regional prone to major flooding events.



##### Land use and development

Development has occurred on or near flood plains in inland areas and on low lying land in coastal areas, which increases the risk of flooding.



##### Investment in stormwater and flood protection infrastructure

The existing stormwater network and flood protection systems in much of the region requires investment to better cope with high intensity rainfall events.



##### Climate change

Climate change has contributed to an increase in the frequency and intensity of extreme rainfall, placing additional pressure on stormwater and flood protection systems.

#### Flood protection roles and responsibilities

Party	Roles and responsibilities
<b>Territorial authorities</b>	Territorial authorities serve as a complementary function in the control of any actual or potential effects for the use, development or protection of land, including for the purpose of the acceptance, avoidance or mitigation of natural hazards.
<b>Regional authorities</b>	The Resource Management Act gives regional authorities the function of controlling land use for the purpose of (amongst other things) the avoidance or mitigation of natural hazards (e.g. flooding). Further rights and responsibilities are provided under the Soil Conservation and Rivers Control Act 1941.
<b>Central government</b>	Central government provides councils and communities with the necessary powers to manage and prepare for flooding effectively. Legislation includes the Resource Management Act, the Building Act, the Soil Conservation and Rivers Control Act, and the Civil Defence and Emergency Management Act.

## Flood protection funding

The Bay of Plenty Regional Council has a policy of funding flood protection expenditure (including depreciation and interest charged on borrowing) primarily through targeted rates. The 2018-2028 LTP stipulated that (for most schemes) ~80% of costs are funded through targeted rates. While being an equitable approach, it puts a high burden on the beneficiaries of the flood infrastructure. Currently, a significant proportion of rural land is Department of Conservation or Māori owned, which is either underutilised or unrateable, which contributes to funding challenges.

All else being equal, the greater the yield from a piece of land, the more affordable the owner should find a certain targeted rate. Therefore, current land use and potential land use enabled through investment in flood protection infrastructure (and associated benefits such as access to water) will be an important consideration when determining the viability of future schemes and applicability of funding tools.



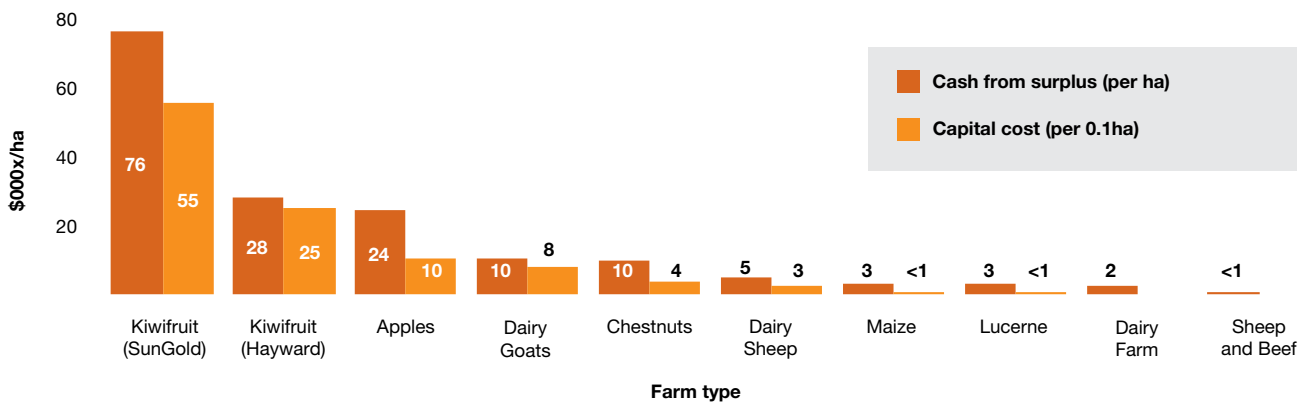
# Agricultural yields

## Land use and agricultural yields

Land use is a significant driver of the yield that may be generated from land (refer figure below). Improving the income generation of land in a district, typically increases its prosperity and drives better outcomes for its residents. These benefits are wider reaching than the immediate land owner, with kiwifruit orchards typically requiring between one and two full time employees per 10 hectares planted. There is also strong seasonal demand for pruning, picking and packaging, which provides additional employment opportunities.

Significant benefits can be derived where infrastructure investment can be leveraged to catalyse land use change to higher yielding farm types (e.g. kiwifruit). These benefits are evident from the Northland Strategic Irrigation Infrastructure Study, which estimated land use changes resulting from enhanced access to water may increase the region's GDP by ~4% and provide an additional 3,400 employment opportunities.

### Cash farm surplus and capital cost by farm type



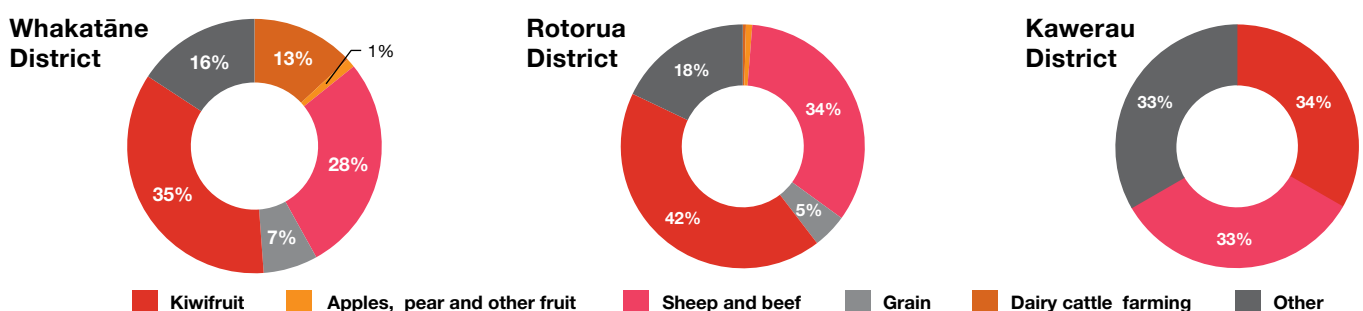
Cash farm surplus is calculated by subtracting capital purchases and farm working expenses from gross farm income.

Source: Land Use Change Diversification in the Waikato

### Current land use in the region

~80% of the total land used for growing kiwifruit is in the Bay of Plenty region, however ~80% of kiwifruit orchards are in the Western Bay of Plenty district. Many of the districts in the Eastern Bay of Plenty have higher concentrations of lower yielding farm types (e.g. maize, lucerne and sheep and beef). Accordingly, there may be an opportunity to stimulate economic growth and employment through enabling land use change.

### Percentage of farms by farm type















Source: Stats NZ – Agricultural production statistics June 2017

# Land use change

## Land use change factors







There are a number of factors that have constrained land use change, preventing further land intensification and restricting land yields. Generally, it is the cumulative effect of multiple factors that limit land use change, rather than individual factors. Further, some of the factors are interlinked, for example limited access to capital will exacerbate technological challenges. A holistic approach is required to optimise the benefits of infrastructure (or other) intervention.

	<b>Climate</b> Amount of rain, sunshine, seasonal variation, temperature and natural hazards		<b>Access to water</b> Quantity, quality and reliability of access to water		<b>Infrastructure</b> Access to the necessary infrastructure to support the proposed land use (e.g. transporting goods)
	<b>Access to capital</b> Ability to fund the upfront cost of changing land use		<b>Access to information</b> Access to high quality advice and information to support decision making		<b>Regulation</b> Existence of regulatory limitations on land use (e.g. environmental discharge consents)
	<b>Soil type and quality</b> Suitability of soil for the land use (e.g. drainage, fertility, depth, etc.)		<b>Profitability</b> Incentive to change land use to the most profitable use		<b>Access to skilled labour</b> Availability of labour with the necessary skills to support operations
	<b>Tradeable markets</b> Ability to access a market to generate a return on the land (e.g. sale of crops)		<b>Technology</b> Access to the necessary technology to leverage high land uses (e.g. frost protection systems)		<b>Personal/social factors</b> Other personal and/or social preferences, characteristics or limitations

The icons highlighted pink represent the factors that the public sector can directly influence to catalyse land use change  
Source: AGFirst – Analysis of drivers and barriers to land use change

## Public intervention

Potential forms of public intervention to catalyse land use change are described below.

Factor	Examples of potential intervention	
 <b>Climate</b>	<ul style="list-style-type: none"> <li>Construct/improve flood protection infrastructure</li> </ul>	Core project
 <b>Infrastructure</b>	<ul style="list-style-type: none"> <li>Construction of new/improved transport links</li> </ul>	
 <b>Access to information</b>	<ul style="list-style-type: none"> <li>Establishment of central information repository and collation of useful data</li> <li>Procurement of professional advice for land owners</li> </ul>	
 <b>Regulation</b>	<ul style="list-style-type: none"> <li>Zoning changes</li> <li>Accelerated consenting processes</li> </ul>	
 <b>Access to water</b>	<ul style="list-style-type: none"> <li>Water storage schemes</li> <li>Improve access to municipal water supply for commercial/industrial uses</li> </ul>	Project extension
 <b>Access to capital</b>	<ul style="list-style-type: none"> <li>Direct local authority funding for projects</li> <li>Assisting with obtaining Crown funding and/or finance</li> </ul>	

# Addressing sector challenges

## Sector challenges

Local authorities are facing a number of challenges to address aging flood mitigation infrastructure and improve service quality to provide long term resilience.



### Providing long term resilience

Investment is required to address aging flood mitigation infrastructure and provide long term resilience, enabling new investment, improved land use and regeneration of coastal areas.



### Roles and responsibilities

There is a need to improve co-ordination between territorial authorities, regional authorities and central government to ensure consistent processes are adopted across flood catchments.



### Funding and affordability

Local authorities are increasingly facing limitations on the ability to increase rates due to affordability constraints. This issue is exacerbated on low value/yielding land, where land owners are unable to generate sufficient income to meet the cost of rates.

## Community resilience – centralisation of flood protection works

Establishment of a new community resilience partnership to coordinate and manage regional flood protection and community resilience improvements, to provide scale benefits, optimise packaging of projects, and enable investment to improve land use.

The structure also enables co-funding of activities and alignment of funding to beneficiaries with contributions from parties benefiting directly from flood protection (where possible).

## Questions for this study

The model proposed seeks to coordinate flood mitigation across the region through a partnership between regional and local authorities and central government to improve the master-planning of flood protection strategies.

As a model for future similar projects, this study will focus on how funding, financing and delivery of flood mitigation can be optimised – specific considerations will include:



### Governance and control:

*How can the governance model best balance providing improved regional co-ordination and masterplanning of flood protection strategies against ensuring an appropriate level of individual local authority?*



### Delivery and implementation:

*How can flood mitigation projects be packaged and contracted to optimise long term resilience, risk allocation, and achieve value for money?*



### Funding and affordability:

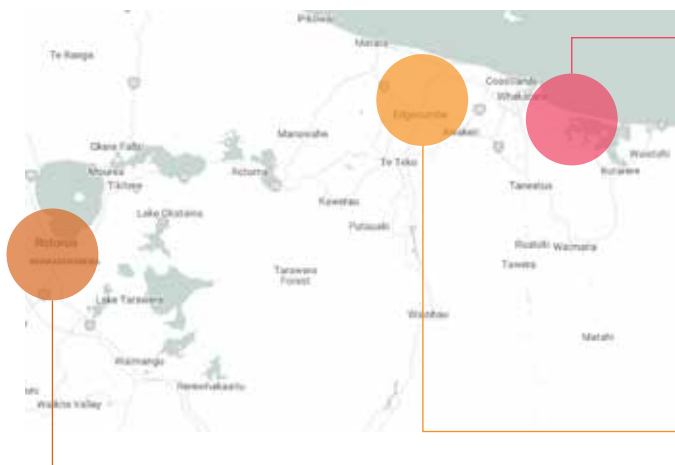
*How can the provision of flood protection infrastructure be structured to incentivise land use change and leverage alternative funding sources to minimise the financial impact on the local authorities and ratepayers?*

# Regional flood protection

## Projects overview

Delivery of a programme of flood protection projects across the Bay of Plenty region, including development and improvement of floodways, and general improvements to existing piped network and open watercourses.

Potential to consider integrating the flood mitigation projects with water storage schemes (where possible) to catalyse land use change and unlock development, refer project extension.



### Bay of Plenty flood resilience projects

**Capital cost**

**\$18m**

Multi-stage project to divert peak flood flows away from a number of different waterways in the Bay of Plenty (e.g. Ngongotaha Stream, Whakatāne River and the Waioueka River) to provide protection against a one in a hundred year flood.

The projects include the development of stopbanks and floodways.

### Rotorua flood mitigation project

**Capital cost**

**\$6m**

Involves a number of small sub-projects, which focus on capacity improvements to existing piped network and open watercourses to address constrictions in the piped network and improve overall flood resilience across the Rotorua district.

### Rangitāiki river resilience and flood protection

**Capital cost**

**\$14m**

The Rangitāiki floodway project is a multi-stage project and is part of the wider river sustainability scheme. The project involves increasing the capacity of the current floodway along the river to divert peak flood flows and improve the management of general river flows.

## Potential project benefits

### Mitigate flood risks across the region

Enhancement and renewal of flood protection infrastructure, which mitigates the elevated flood risk prevalent across the Bay of Plenty region.

### Environmental outcomes

Flood protection and flood/river flow management improvements may reduce the level of sediment run-off entering rivers, lakes and waterways during extreme weather events.

### Targeted funding approach

Opportunity to align the costs of the infrastructure to beneficiaries through value creation and capture mechanisms and commercial arrangements with major public and private sector beneficiaries.

### Catalyse land use change

Flood protection improvements may allow land use change to higher productivity activities. Opportunity to further catalyse this through integration with water storage schemes.

# Structuring tools

*This model focuses on establishing a partnership between local authorities in the region, to assist with the coordination the planning, procurement, funding and financing of flood protection and other community resilience projects. The partnership may also explore opportunities to integrate flood protection infrastructure with water storage or other commercial ventures to catalyse land use change and leverage additional co-funding opportunities.*



## Delivery structure

### Council delivery

New entity
<b>Partnership</b>
Joint procurement
Traditional delivery

### Crown delivery

Stakeholder
Partnership
Shareholding
Crown delivery

### Private delivery

<b>Service provider</b>
Partnership
New SPV entity
Full privatisation

### Iwi involvement

Project sponsor
<b>Partnership</b>
Shareholding
Iwi delivery



## Funding sources

### Council funding

<b>General rates</b>
<b>Targeted rates</b>
Developer contributions

### Crown funding

<b>Crown grant</b>
Seed capital
<b>Specific Crown funds</b>

### Value capture

<b>Negotiated contribution</b>
Land intervention
Property development
IFF levy

### Direct

Private capital
Commercial opportunity
Tax/duty
<b>User pays</b>



## Financing sources

### Public finance

DMO (Crown facility)
Crown loan
<b>LGFA</b>
Crown equity

### Private finance

Bank debt
Bonds/private placement
Subordinated/convertible instruments
Private equity



## Capital delivery

### Commercial model

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Design and build
Managing contractor
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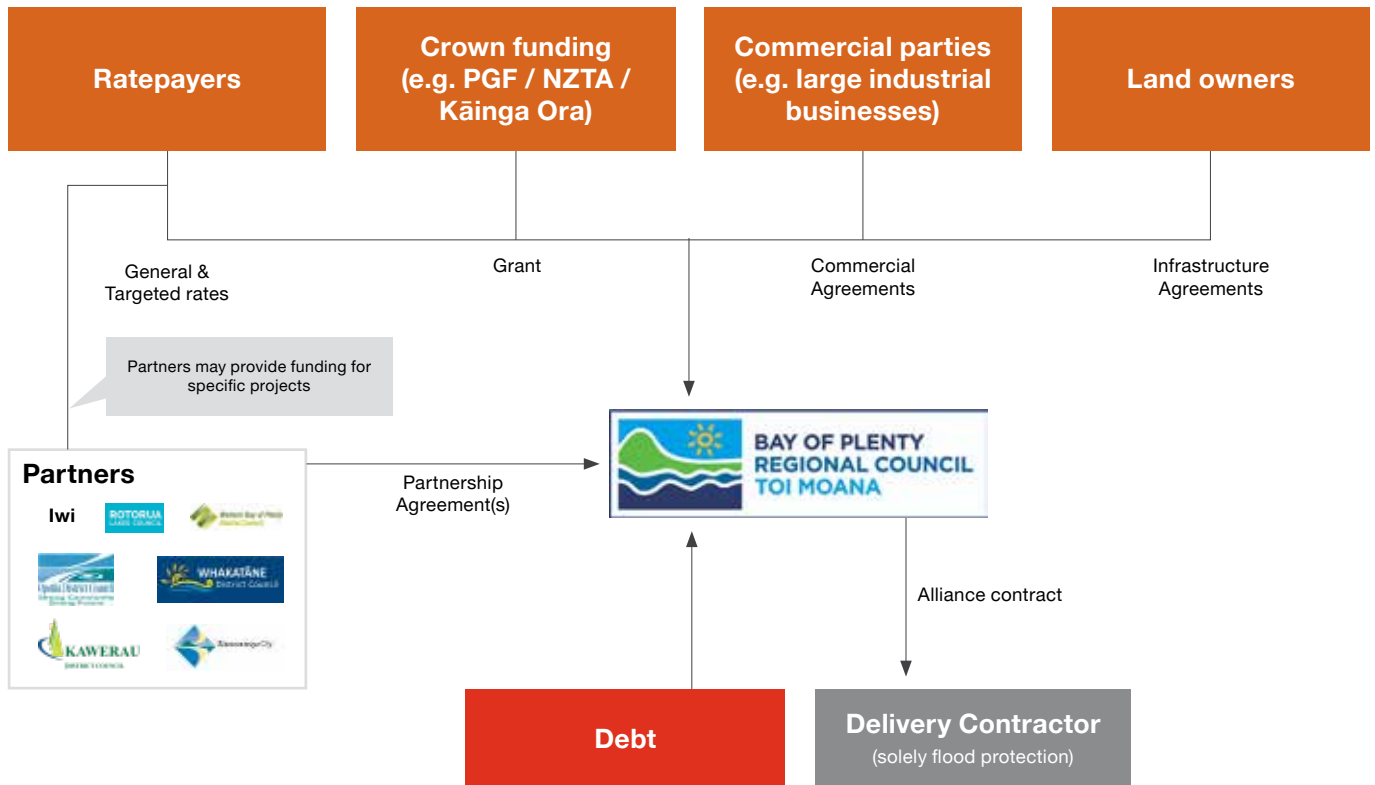
## Operations delivery

### Commercial model

Self perform
Operate only
Operate and maintain
Design, build, operate, maintain
Design, build, finance, operate, maintain
Turnkey

# Proposed model

## Commercial structure diagram



### Integration with water storage projects:

A key constraint on ratepayer affordability is the income generation and/or underlying land value of the rateable land. Delivering enhanced protection from flooding is likely to improve land value, and may support land use change towards a higher yielding activity. However, without reliable access to water any significant uplift in land value is expected to be constrained. Integrating flood protection infrastructure with a water storage project can remove water access barriers, and catalyse a step change in income generation through pursuing higher land uses.

Depending on the specific technical characteristics of the flood protection project, it may be possible to integrate the infrastructure with a water storage scheme and/or municipal water supply. While existing planned flood protection projects in the region may not have the required technical characteristics to support an integrated scheme, there may be other flood protection projects in the future, or across New Zealand, where an integrated scheme is possible. Given the benefits associated with these integrated schemes, local authorities should investigate and consider potential opportunities, where technically feasible.

Further detail on the challenges associated with these projects is provided in the project extension, accompanied by a hypothetical commercial structure.





## Explanation and evaluation



### Delivery, capital and operations structure



Bay of Plenty Regional Council retains overall responsibility for managing community resilience and flood protection activities across the region, including planning, funding, financing, procuring and delivering infrastructure.

- Dedicated resource to investigate opportunities to use community resilience infrastructure to catalyse growth and development throughout the region and/or integrate this infrastructure with other activities (e.g. water storage).

#### Territorial authority partnerships

- Formal partnerships established with each of the territorial authorities in the region to support co-ordination and alignment, unlock strategic opportunities when planning and prioritising projects and provide opportunities to integrate flood protection with water storage and other infrastructure.

#### Iwi groups

- Formal partnerships established with iwi groups to ensure active and ongoing Māori involvement. These partnerships will also provide collaborative interfaces to assist with future formal engagement over potential projects (including water storage and other integrated projects).
- Partnerships may also be leveraged to assist with unlocking iwi land and investment.

#### Alliance contracts

- Agreement for the delivery of capital works (design and construction).
- Collaborative model, where risks are shared between the partnership and contractor.
- Contractors selected on price (Target Outturn Cost) and non-price factors.
- Packaging of sub-projects/projects used where possible to provide additional scale and procurement synergies.

#### Delivery Contractor

(solely flood protection)

#### Payment mechanism ('competitive' alliance)

- Reimbursable costs charged on a time and materials basis (uncapped).
- Profit margin paid, at a pre-agreed rate, above reimbursable costs up to the Target Outturn Cost.

### Features of the proposed structure include:

- ✓ **Coordinated and consistent approach** to flood protection and community resilience across territorial boundaries.
- ✓ Centralised planning framework to **optimise prioritisation and delivery of projects**.
- ✓ Ability to **leverage the shared experience and expertise** of partners through formal partnership arrangements.
- ✓ Expertise and focus required to **unlock Crown funding support for projects** with strong business cases or where Crown assets are direct beneficiaries (e.g. NZ Transport Agency).
- ✓ **Collective scale leveraged** where possible to optimise market interest, obtain economies of scale and provide procurement and other efficiencies.
- ✓ **High degree of iwi involvement** through partnerships with iwi groups, ensuring Māori interests are appropriately considered. Opportunities to leverage partnerships to **unlock iwi land and investment**.
- ✓ Risk sharing mechanism in alliance contracts **enhances market interest**, promotes contractor solvency, and can allow an **outcomes based approach to payment/performance regimes**.
- ✓ **Dedicated resource to investigate strategic opportunities** to utilise flood protection to support economic growth and development, and integrate flood protection with other infrastructure.
- ✓ Fixed price contracts used where appropriate to **support project finance solutions** for integrated projects (e.g. water storage schemes).



## Funding and financing

<p><b>Ratepayers</b></p>	<p>General and targeted rates used to meet any shortfalls between project costs and alternative funding.</p> <p>Preference to utilise infrastructure agreements with landowners (refer below) rather than targeted rates where specific landowners can be identified as significant beneficiaries (e.g. benefiting from land value uplift or opportunities to change land use to derive a greater return from the land).</p>
<p><b>Crown funding (e.g. PGF / NZTA / Kāinga Ora)</b></p>	<p>Leverage co-funding opportunities from various Crown entities, where the community resilience project may avoid costs or support projects for the entities (e.g. increases the land value or development potential of land owned by Kāinga Ora, mitigates risk of the NZ Transport Agency having to repair roads damaged by floods).</p> <p>Additional funding may be available through Crown managed funds (e.g. Minister for the Environment managing the Freshwater Improvement Fund, where there is demonstrable benefits to the quality of rivers and lakes).</p>
<p><b>Commercial parties (e.g. large industrial businesses)</b></p>	<p>Financial contributions from commercial parties/iwi groups may be available where they directly benefit from the community resilience project.</p> <ul style="list-style-type: none"> <li>• Introducing commercial parties/iwi groups early in the business case phase will optimise potential opportunities through greater flexibility in project scope/design.</li> <li>• Funding may be structured as a combination of upfront capital and/or ongoing payments.</li> </ul>
<p><b>Land owners</b></p>	<p>To the extent the delivery of the infrastructure supports economic growth, land use change and/or provides a direct benefit to land owners, a contribution could be sought.</p> <ul style="list-style-type: none"> <li>• An encumbrance model is proposed to fund these contributions, where a long term annual levy, beginning after a certain period, is included on the title of each of the developed sections.</li> <li>• Allows for a targeted, long term annual levy to be set at the outset, which provides revenue certainty over the long term.</li> <li>• Specific mechanisms within the levy (e.g. grandfathering) can be utilised to mitigate the cash impact on land owners.</li> </ul>
<p><b>Debt</b></p>	<p>LGFA borrowing through the Bay of Plenty Regional Council is likely to be the most cost effective financing solution.</p>

### Features of the funding and financing solution:

- ✓ Coordinated approach to funding may **assist with unlocking funding** from various Crown agencies and funds, partners, commercial parties and landowners.
- ✓ Leveraging a number of different co-funding opportunities and other funding sources to **mitigate impact on individual ratepayers.**
- ✓ Encumbrance model utilised to imbed the cost of the landowner contributions over time, **without driving house prices higher or disincentivising development.**
- ✓ Commercial opportunities utilised to **reduce burden on local authorities** and ratepayers.

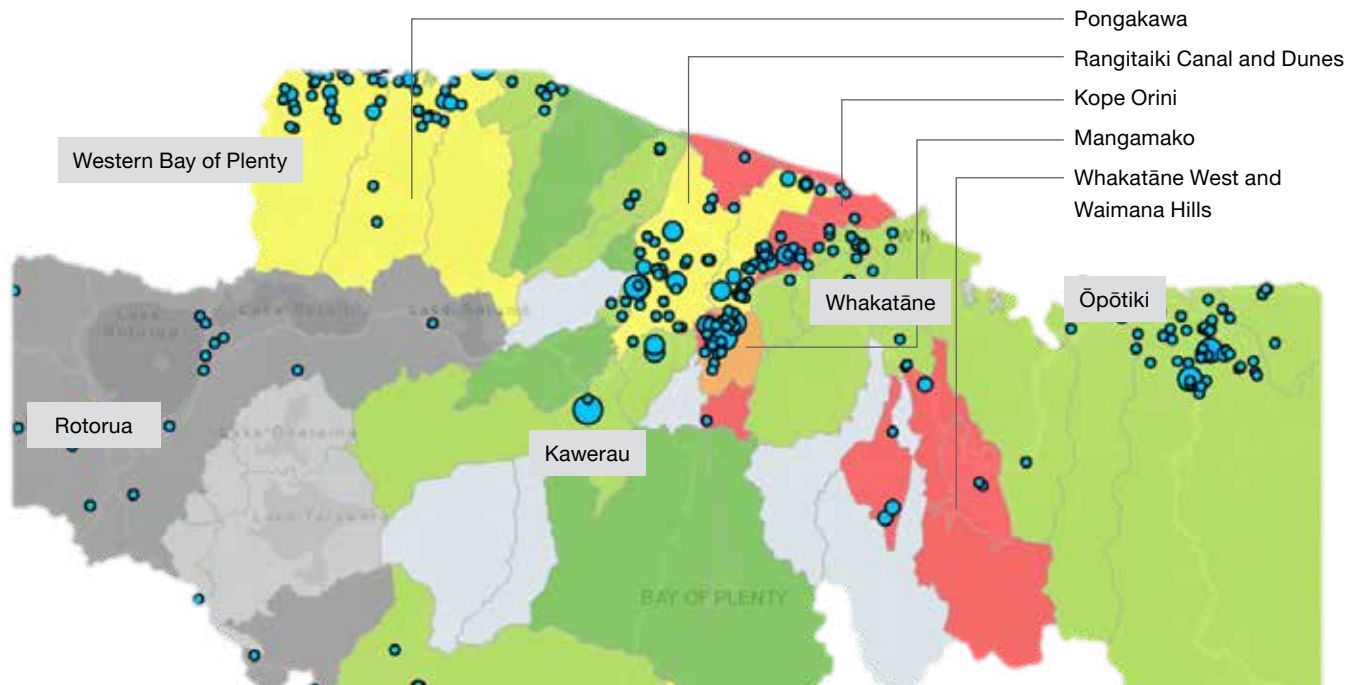


# Area of focus

## Access to water

Most high yielding crops require reliable access to water, which is often one of the primary factors preventing land use change.

The map below outlines the groundwater availability and consented allocation across the Bay of Plenty Region. The red and light grey shading represents areas where there is a significant limitation on the availability of water, and therefore potential opportunities to integrate flood protection and water storage projects to catalyse land use change.



Water available	
<span style="color: green;">■</span>	• No water allocated
<span style="color: lightgreen;">■</span>	• 0 – 50% allocated
<span style="color: yellow;">■</span>	• 50 – 90% allocated
<span style="color: orange;">■</span>	• 90 – 100% allocated
<span style="color: red;">■</span>	• Over allocated
<span style="color: lightgrey;">■</span>	• No water available
<span style="color: darkgrey;">■</span>	• No assessment and no water allocated
<span style="color: grey;">■</span>	• No assessment and water allocated
<span style="color: blue;">■</span>	• Existing water consents

**Challenges of water availability**

Groundwater availability is based on 35% of residual average aquifer recharge.

The **Waimana Hills** area is at capacity with existing capacity mainly allocated to residential use, and which severely restricts any land use change

The **Mangamako** and **Kope Orini** areas are using groundwater in irrigation currently, however further land use change will be limited as consenting in this area is close to capacity

**Pongakawa** and surrounding areas, are likely to face constraints to future land use change

Source: Bay of Plenty Regional Council – online water availability tool

## **Water storage enabling economic development**

Reliable access to water through water storage schemes can drive significant economic development by increasing the productivity of land and enabling higher value agriculture and horticulture activities. Increased productivity can lead to higher land values as well as wider regional benefits such as increased employment opportunities and regional GDP. Local authorities benefit from an increase in ratepayer ability to fund infrastructure costs, as well as opportunities to access additional co-funding and value creation/capture opportunities.

## **Potential integration of flood protection and water storage infrastructure**

Depending on the specific technical characteristics of each project, it may be possible to integrate water storage schemes and/or municipal water supplies with dams, reservoirs and other flood protection infrastructure. Where this is feasible, additional economic benefits (such as catalysing land use change, employment and economic growth by providing reliable access to water) may be generated. Accordingly, local authorities should investigate the feasibility of such integration where the technical factors for the specific project support such a scheme.

Given the economic and social outcomes water storage schemes can generate, particularly in rural areas, the PGF has shown a willingness to co-fund a number of smaller community water storage projects with strong business cases. The PGF has recently committed ~\$60m of funding to two such schemes in Northland, which were initially developed by Northland Regional Council and are expected to include offtake for municipal water supply. Crown support has been critical to a number of schemes, due to large upfront capital cost.



# Area of focus

## Water storage

### Project challenges

Despite the strong social and economic incentives, there are a number of significant challenges to delivering a water storage scheme. Assuming that with access to water, soil and general growing conditions are conducive to horticulture and agriculture, challenges include:



#### Availability of suitable land

- Land availability for ponds/reservoirs is dependent upon the outcomes of dam break analysis which considers proximity of a proposed site to settlements and people.
- Protected land, such as council park land or Department of Conservation held land, cannot be swapped as part of a water storage scheme, as per the Supreme Court ruling on the Ruataniwha Water Storage Scheme (flooding of land effectively denies public access).
- Local authorities need to control land use in the scheme catchment area to ensure suitable land is used for horticulture/agriculture and full value is therefore unlocked.
- Environmental challenges (e.g. dust levels, water take at different river levels, slope and reticulation requirement, potential risks to the natural environment) may further restrict the suitability of land and/or adversely affect the economics of the project (e.g. additional cost to construct fish screens).
- Economics are improved if schemes are gravity fed and piping/reticulation is minimised (which further limits suitable areas).



#### Funding uncertainty

- Strong land owner engagement and early commitment to a scheme is required to mitigate uncertainty around uptake and future demand impacts. Uncertainty reduces the finance available to fund the large upfront capital costs. There can also be significant refinance uncertainty through the project life, further increasing project risk and the need for upfront equity.
- Capital plans are based on forecast uptake leading to overbuild risk on initial capital providers.
- Typically land owners are limited in their ability to provide funding upfront to support a scheme's development, particularly as their ability to pay can often be contingent on the scheme itself (current land use can be uneconomic).

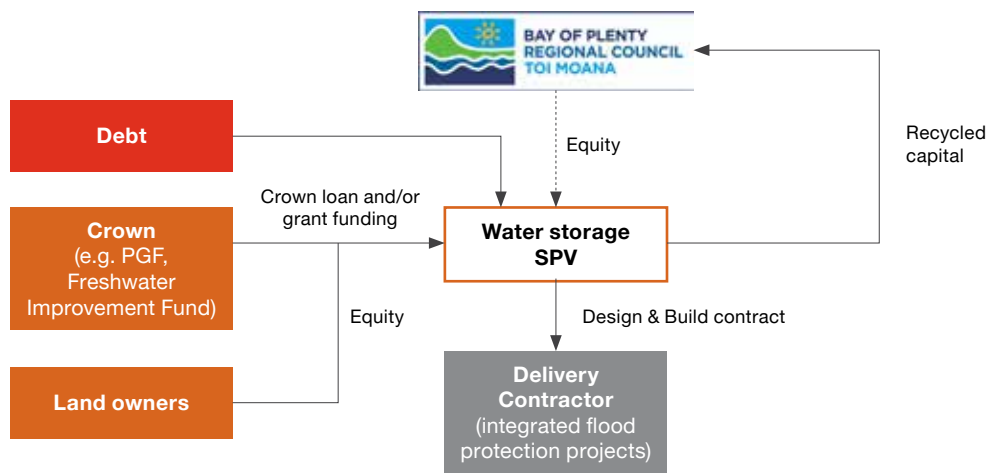


#### Governance, control and fairness

- Water storage typically requires some level of partnership between the private and public sector (e.g. Crown and local authorities). The challenges associated with these schemes are often better managed by increased local authority involvement.
- Multiple stakeholders involved including, iwi, public and private parties and beneficiaries.
- A robust governance structure that acknowledges and provides representation, and can evolve throughout the project lifecycle is critical to the successful delivery of these schemes.
- May involve municipal water offtake agreements, adding additional complexity to negotiations.
- Pricing must be linked to the use of the infrastructure not the water itself. Pricing is typically therefore based on access rather than on amount of water used.
- Fair and reasonable pricing is required (whether cost recovery or inclusive of a return to shareholders). Pricing can be complicated if incremental capital and operating costs change per hectare and prices need to be equalised. Also the inclusion of different forms of equity (e.g. land contributions), and the need to recycle capital into future schemes can further complicate pricing.

# Project extension: Integrated water storage

## Commercial structure and explanation



### Water storage SPV

Delivery SPVs established for integrated infrastructure projects. These would undertake all relevant management, procurement, funding and financing activities.

- SPVs may be established for just the delivery phase, or may endure into the operations phase (e.g. to manage a water storage scheme throughout its whole life).
- Separate SPVs allow for private investment in specific projects (e.g. beneficiaries of a water storage project) and enhance transparency over risk allocations for integrated projects.
- Potential role for iwi to provide equity into these SPVs and receive commercial returns. Iwi partnerships may be leveraged to facilitate this.

### Delivery Contractor (integrated projects)

#### Design & Build contracts

- Agreement for the delivery of capital works (design and construction).
- Fixed scope of works procured.

#### Payment mechanism

- Fixed price contract.
- Budget certainty a key requirement to support project financing solution, where amortisation and payment profiles are solved for the capital cost.

### Recycled capital

Where integrated projects provide a commercial return (e.g. equity return for an integrated water storage project), this capital can be recycled to help fund other projects.

Crown funding and/or loans may also be required to support these initiatives.

### Debt

Given the risk profile and nature of water storage projects, a different approach is likely to be required for financing integrated projects. Typically, a project finance approach is used for these projects, however, where Crown loans are available, equity financed solutions may be utilised (as in the Waimea Water case study).

Where upfront capital and/or finance is precluding these projects, Quayside Holdings, the Bay of Plenty Regional Council and/or relevant territorial authorities may provide favourable loans to private partners to unlock projects (i.e. filling the role Crown Irrigation Investments played in the Waimea Water case study).

## Case study

### Waimea Water

Waimea Water is a Council-Controlled Organisation established in November 2018 to manage the construction, operation and maintenance of the Waimea Community Dam. It represents the shared interests of Tasman District Council (TDC) (majority shareholder) and Waimea Irrigators Ltd (WIL), an entity formed for farmers and other stakeholders to be involved.

Construction of the 13 billion litre reservoir and dam is underway and expected to be completed in 2022.

#### Overview of the infrastructure

The dam system is designed to capture and store excess waters from higher flows in the Lee River. One of the primary purposes of this water is to ensure flow rates and water levels in the Lee River, Waimea system and Wairoa system remain at appropriate levels during the dry season, with the dam set up to release water when the flow rate or water levels fall too low.

Farmers in the surrounding area may obtain access to the reservoir, to reduce reliance on ground bores through WIL, provided there is sufficient water to preserve the Lee River and related systems.

Certain technical factors were fundamental to the viability of this project, which will not always be prevalent in flood protection infrastructure projects. Accordingly, this case study (and associated commercial structure) will not be applicable to all projects.

#### Funding

TDC invested ~\$51m in the project, which was funded through:

- ~\$23m TDC contribution
- ~\$7m grant from the Fresh Water Improvement Fund
- ~\$5m grant from Nelson City Council
- ~\$10m Crown Irrigation Investments Limited (CIIL) loan
- ~\$6m CCO loan.

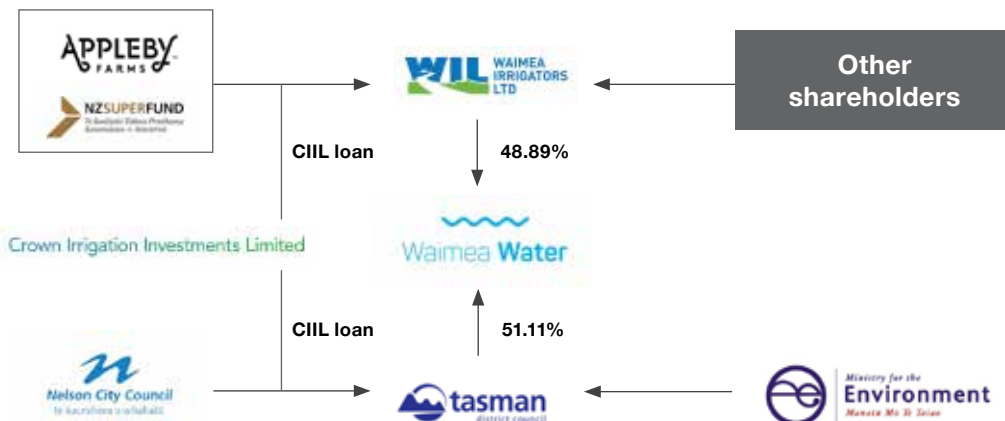
WIL funded its investment through:

- ~\$27m capital raise
- ~\$22m CIIL loan.

**\$600m  
– \$900m**

**Economic benefit of the project over 25 years**

#### Simplified structure







## Housing development

# Sector overview

### Rotorua housing need

Housing shortages and poor housing affordability are common issues across New Zealand, including in Rotorua. Rotorua has a shortage of housing at all levels of the market for both renters and owner-occupiers, resulting in increasing housing costs, reducing affordability and increasing homelessness. A 2019 assessment by MHUD identified a need to address supply and quality issues for the full range of the housing continuum in Rotorua, with urgent priority on the lower end of the market, where the level of support/intervention required from a government perspective is at its highest (refer below). Rotorua Lakes Council estimate a total housing shortfall of 1,500 to 1,750 homes and growing. The housing shortage is disproportionately impacting Māori, comprising 85%-90% of people on the social housing waitlist.

#### The housing continuum



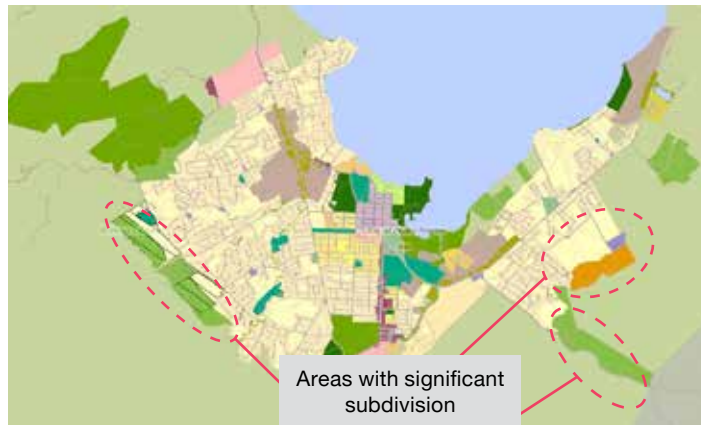
<b>Emergency housing</b>	Temporary accommodation and support subsidies for individuals and families who have an urgent need for accommodation because they have nowhere else to stay or are unable to remain in their usual place of residence.
<b>Social housing</b>	Subsidised rental accommodation combined with support services appropriate to household needs. Rents usually subsidised by the Income Related Rent Subsidy.
<b>Assisted rental</b>	Subsidised rental accommodation. Rents usually partially funded by the Accommodation Supplement and/or at below market rent levels.
<b>Assisted ownership</b>	Household income-related pathways to home ownership. Subsidies include rent to buy, affordable equity and shared ownership, with equity provided by third-party (or Crown) shared equity providers.
<b>Private rental</b>	Rental at market rates.
<b>Private ownership</b>	Home ownership at market value.

Source: Community Housing Aotearoa



## Residential land in Rotorua

Rotorua land-use zoning (Rotorua Lakes Council GIS)



Only 57 titles were issued in Rotorua between January 2017 and September 2019, relative to an estimated housing shortfall of over 1,500.

- Residential 1
- Residential 2
- Residential 3
- Residential 4
- Residential 5
- Rural 1
- Rural 2
- Rural 3

### Subdivision consent status 1 Jan 2017 to 26 Sep 2019

Status	Subdivisions	Total lots
Pre-lodgement	Confidential	147
Processing	4	155
Granted	5	296
Civil works	3	107
<b>Titles issued</b>	<b>4</b>	<b>57</b>
<b>Total</b>	<b>16</b>	<b>762</b>

New housing supply in Rotorua has been limited, with only a dozen or so new homes currently on the market.

The above map shows district plan zoning around the Rotorua city centre, with the circled zones highlighting areas where significant subdivision appears to be taking place; these areas encompass approximately 500ha of either current or future zoned Residential or Rural Lifestyle (Rural 2) land. They include Pukehangi Heights and Baxendale Drive to the west and 216 and 246 Vaughan Road, 21 Butler Place, Redwood Park and the first stages of development on Ngāti Whakaue Tribal Land to the east.

Residential sections are typically 500m<sup>2</sup> or larger and pricing typically ranges from \$200,000 to \$300,000, including GST. Lifestyle sections, such as those at Redwood Park, are larger, generally 1,400m<sup>2</sup> plus, and start at \$325,000. Home and land packages typically start at around \$750,000, including GST, considerably above an affordable price-point (see the following page) and the Rotorua mean house price of \$477,000, including GST (REINZ).



# Development challenges

Housing market challenges exist on both the demand and supply side, as shown below and discussed on the following pages, meaning that the Rotorua market is out of equilibrium.

- **Demand side:** based on average household incomes, housing for Rotorua is highly unaffordable.
- **Supply side:** unlocking land for development is challenging, with new builds requiring enabling infrastructure (both horizontal and social) to be built (and funded), and build costs are high. Feasibility is also challenged, as a result of gaps between affordable price points and the underlying cost of delivering new houses.

## Housing development economics in Rotorua

While there is a shortage of housing across all price segments of the market, the supply gap is particularly pronounced for entry-level homes. High infrastructure costs challenge the feasibility of subdividing block land into residential sections and drive section pricing. Combined with high construction costs, the end product has become unaffordable for the local market.

The table to the right indicatively sets out the development economics of a hypothetical, average quality, new home of an affordable size in a good but not prime location. After accounting for the cost of land, infrastructure and construction, and assuming a development margin of 15% to 20% (across land development and house build), the indicative end price-point of the completed new home far exceeds entry-level affordability.

This is illustrated in the example below, where the cost to deliver a new house in Rotorua exceeds both the median and affordable price point. As a result, new affordable houses are not delivered by the market at the volume required. Demand and supply side interventions have the ability to increase access to housing.

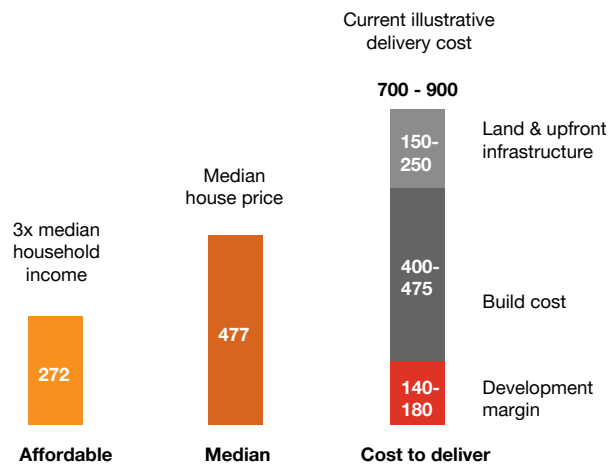
### Indicative feasibility for a 150m<sup>2</sup> – 180m<sup>2</sup> new home (including GST)

Section price	\$150k – \$250k
Civils, infrastructure	\$100k – \$125k
Indicative (raw) land value	\$50k – \$125k
Build cost, incl. fees	\$400k – \$475k
Development margin (subdivision and build margin)	15% – 20%
<b>Indicative gross value</b>	<b>~ \$630k – \$870k</b>

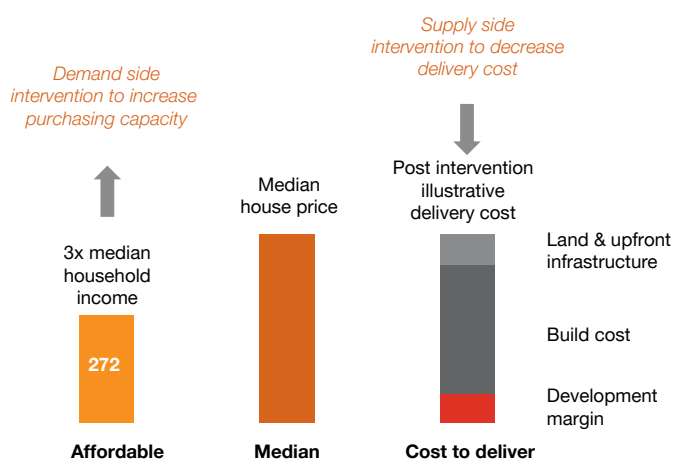
Intervention is likely required in order to unlock land, incentivise developers into the market, and lower the price point to deliver more entry-level homes.

## Illustrative price points (\$000, incl GST)

### Rotorua current



### Rotorua post intervention



**Reducing margin (through government intervention in the development process to either reduce input cost and/or risk uncertainty, or both) and reducing upfront infrastructure cost (through grants or use of targeted rates/levies) are potential ways of reducing the cost to deliver, as explored later in this section.**

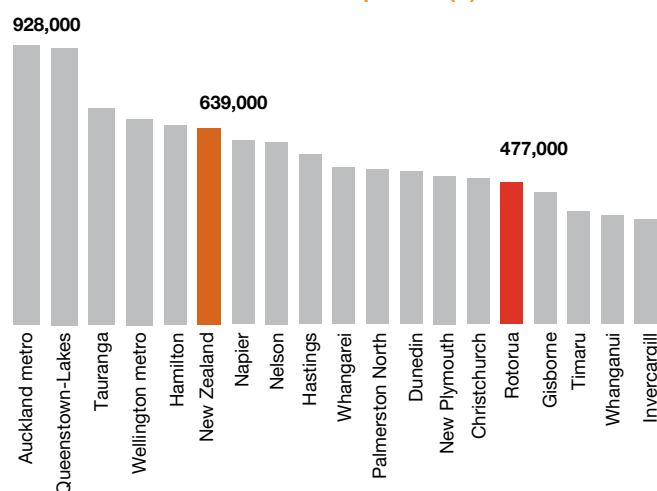
# Demand challenges

## Demand side challenges: housing affordability

The house-price-to-income multiple is a common measure of housing affordability, defined as the ratio between median house price and median household income for a market. A ratio above 3:1 is considered unaffordable, while a ratio above 5:1 is considered ‘severely unaffordable’<sup>1</sup>. While median New Zealand house prices have not been below 3.0x median income for over 20 years, the ratio highlights the issue nationally, and provides a useful basis for comparison between markets, and is therefore used for illustration. While the ratio in Rotorua is less than the New Zealand average, it is still above 5.0x indicating severe unaffordability (\$477,000 median price and household income of \$90.6k per annum).

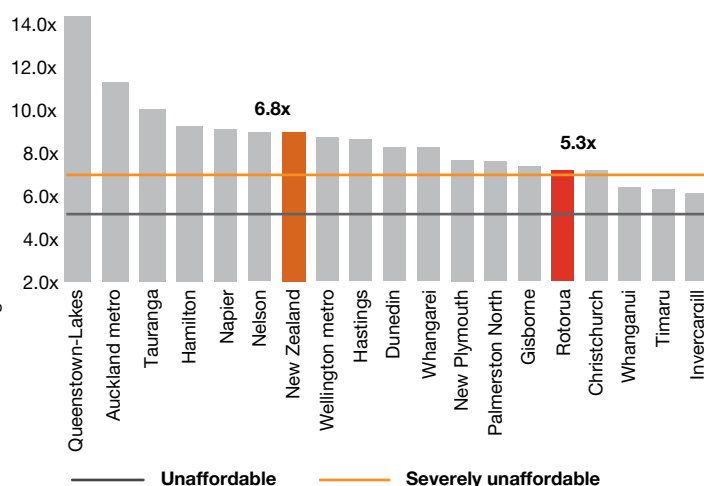
A below average median house price, while improving affordability, can also create challenging housing economics as the cost to deliver exceeds market prices and therefore new houses are not delivered by the market.

### New Zealand median house prices (\$)



Source: REINZ, Statistics NZ

### New Zealand median house price multiples



Source: REINZ, Statistics NZ, Demographia

## Demand side tools

There are a range of tools available to address housing affordability challenges and provide ways for people to purchase houses at affordable prices, as set out below. Further detail on the tools most applicable to Rotorua (shaded below) are outlined on the following page.

Tools	New Zealand examples
• Housing allowances	- Income Related Rent Subsidy programme (IRR)- Accommodation Supplement
• Grants to home buyers	- First Home Grant – Tenant Home Ownership grant
• Progressive home ownership schemes	- Progressive Home Ownership Fund (shared ownership, rent to buy, or leasehold arrangements)
• Subsidised mortgages and mortgage guarantees	- First Home Loan
• Tax relief for home ownership	- Not currently used in New Zealand.

<sup>1</sup> International Housing Affordability Survey 2016

# Area of focus

## Progressive housing schemes

Progressing housing schemes are emerging in New Zealand, following successful implementation internationally (particularly in the United Kingdom). Two examples include shared equity and rent-to-buy.

### Shared equity / ownership

Shared equity structures are intended to bridge the gap between the market price on an entry level home and the price which the home buyer can afford, with additional 'bridging equity' provided by a third party Share Equity Provider (SEP).

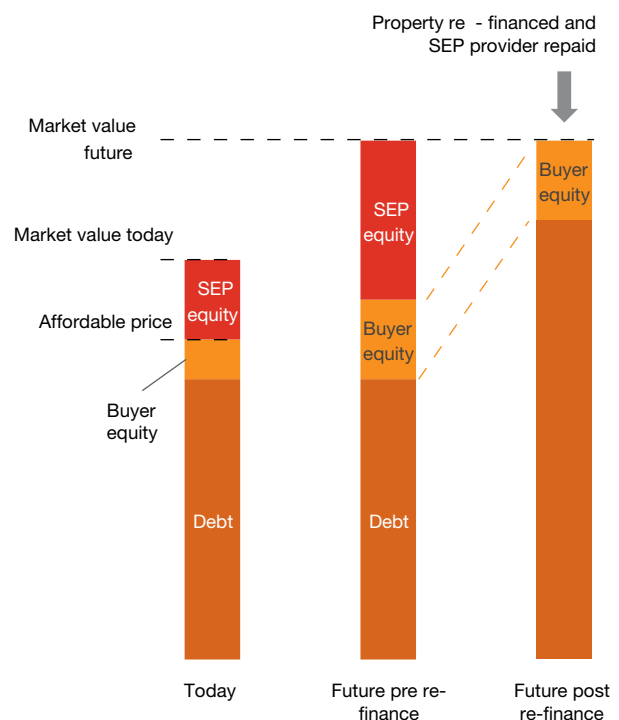
The home buyer will typically contribute 60-80% of the home's market value, achieved by providing a smaller than normal deposit and taking out a mortgage. The SEP owns the balance of the property.

A discounted coupon (or interest rate) on the equity provided by the SEP may be payable.

Assuming the home's value increases, so does the home buyer's equity and ideally the home buyer can then buy out the SEP (in time, known as 'stair-casing'), or in one transaction when the home buyer has grown their equity to the extent that they can refinance and buy out the SEP, within a prescribed timeframe.

One challenge is securing bank finance of the home buyer's initial acquisition as banks typically seek security over the entire asset. These schemes therefore require an element of partnership between the home buyer, financier and SEP.

### Illustrative structure



## Rent-to-buy / lease-to-buy

Rent-to-buy schemes allow prospective home buyers to rent a property while saving to eventually be able to afford to buy it.

Typically, a prospective home buyer will rent a newly built home at a discounted rental (e.g. 20% below market) for 5-10 years. During the period of rental tenure, the tenant has the option to buy the property, either at a price fixed at the outset or subject to market valuation at the time of acquisition.

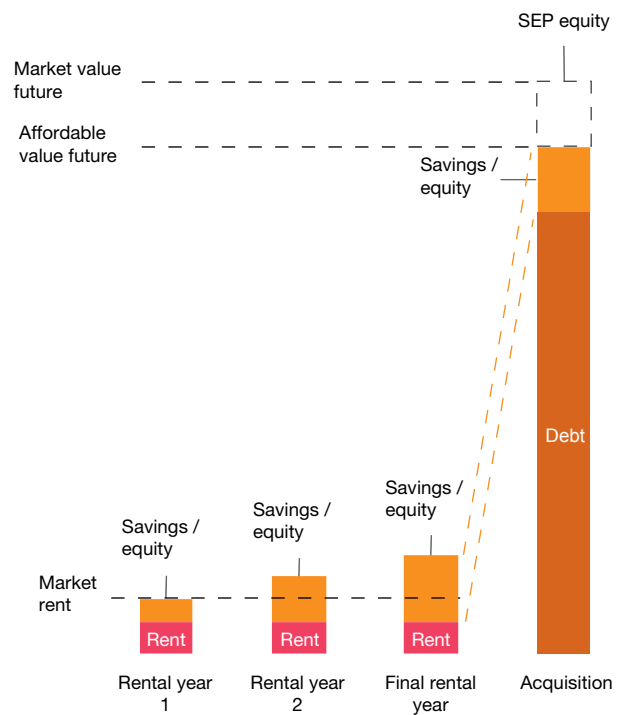
Under a lease-to-buy scheme, a prospective buyer pays rent with an option to buy the land in future.

The schemes provide security of tenure and ideally allow prospective home buyers to save sufficient equity to enable them to borrow and buy the house. The home buyer (typically) also has to show responsible servicing patterns and occupancy characteristics to be able to acquire the home; pastoral care is a common characteristic of these schemes.

If the prospective buyer cannot afford the market value in the future, in some cases they may convert to a shared equity scheme.

The models offered tend to be either open market orientated to assist with increasing the pool of buyers for affordable housing product and improving development feasibility, or funded via taxpayer support or philanthropic equity.

## Illustrative structure



# Supply challenges

## Supply side challenges: build costs

A stocktake of New Zealand's Housing (2018) identified three key barriers to housing supply:

- **Planning** – Current planning approaches are complex, adding cost and slowing new development.
- **Infrastructure funding** – New developments often require large upfront investments in infrastructure, with the benefits of this investment largely accruing to developers or surrounding home-owners. Rotorua Lakes Councils are facing challenges funding new infrastructure, particularly under existing models that do not effectively align the benefits and costs of growth.
- **Development / construction sector issues** – The house-building industry in New Zealand lacks scale, with a large number of small building companies. Uncertainty of pipeline discourages investment, long term planning, hiring and training. These factors lead to high construction costs during boom times, and many business failures during busts. Land-banking is also common, with strong incentives given recent high land value appreciation.

Build costs do not vary substantially across New Zealand; for example during 2017 the average house construction cost New Zealand wide was \$395,000 (averaging 210m<sup>2</sup>), while in Auckland it was \$455,000 (averaging 230m<sup>2</sup>)<sup>1</sup>. Therefore, to incentivise development of affordable housing, intervention is required to lower delivery costs and support infrastructure investment (including funding support).

## Supply side challenges: land availability

Another common issue is the supply of land available for development. In Rotorua, while there is no shortage of residential zoned land, unlocking available residential land for development has been challenging. Relative to the land available for development, few sections are being brought to market.

## Supply side tools

There are a range of tools available to address housing affordability challenges and improve the economics of new developments, as set out below. We set out a number of these tools below and provide Further detail on the tools most applicable to Rotorua are outlined on the following page.

Tools	Examples
Social housing provision	<ul style="list-style-type: none"> <li>- Social housing provided by:</li> <li>- Kāinga Ora</li> <li>- Local government</li> <li>- Community Housing Providers (CHPs)</li> </ul>
Government led development	<ul style="list-style-type: none"> <li>- Kāinga Ora led housing developments (e.g. Hobsonville Point)</li> <li>- Joint central and local government led development (e.g. Tamaki)</li> </ul>
Subsidies for the development of affordable housing	<ul style="list-style-type: none"> <li>- Kiwibuild underwrite of affordable homes in new developments</li> </ul>
Infrastructure provision	<ul style="list-style-type: none"> <li>- Targeted rates and levies</li> <li>- Infrastructure Funding and Financing Act (IFF)</li> <li>- Urban Development Act</li> </ul>
Planning and land use	<ul style="list-style-type: none"> <li>- Urban Development Act</li> <li>- Resource Management Act reform</li> </ul>

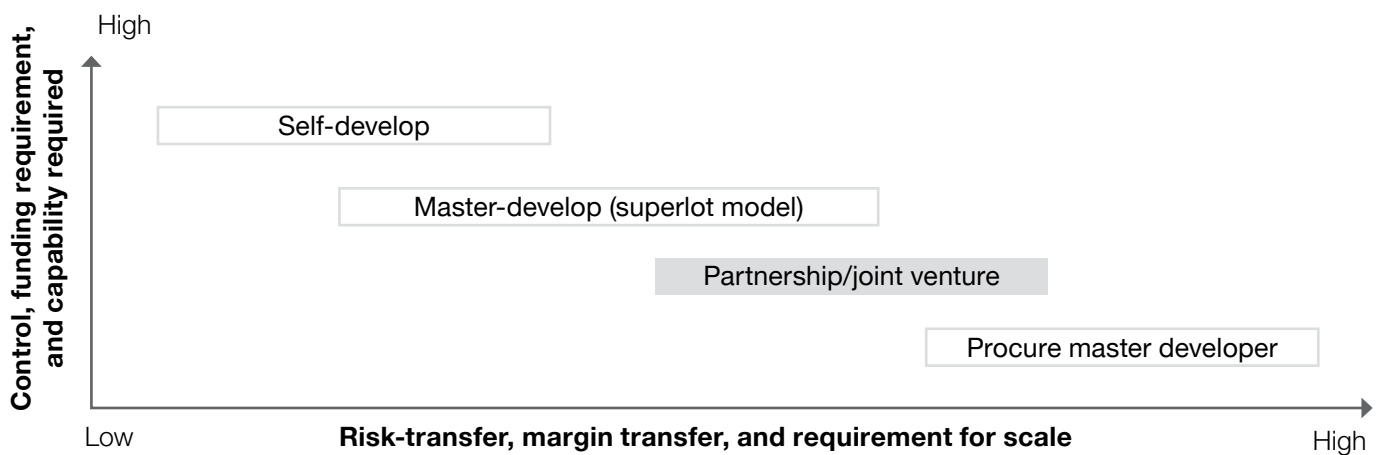
<sup>1</sup> A stocktake of New Zealand's Housing 2018

# Area of focus

## Public sector intervention

### Public sector led development

Where there are supply side development challenges, the public sector can lead development, taking on risk to lower development margin and cost, while unlocking value through master planning. There are a spectrum of options available for public sector involvement, with a higher level of public sector control and support required at the lower end of the housing continuum (i.e. social housing), compared to market housing, which may only need infrastructure support (refer below).



Public sector led development aims to increase supply and reduce the cost to deliver through:

- Directly increasing the supply of housing
- Reducing margin by retaining some risk (on a value-for-money basis)
- Reducing build costs through scale, standardisation, building of smaller higher density housing, and seeking to driver certainty and pipeline for the construction industry.

### Upfront infrastructure cost

There are a range funding models available for enabling infrastructure. The status quo approach of council funding infrastructure and recouping some cost through development contributions puts a high burden on already strained council balance sheets and acts as barrier to development. Models can be used to reduce the upfront cost of infrastructure to council and developers, through a grant, or use of a levy, whereby cost is allocated to beneficiaries over the long term under structures where financing is off-balance sheet for council (e.g. IFF/SPV, UDA tools).

Infrastructure funding models	Upfront funding	Upfront cost to developer	Alignment of cost to beneficiaries
Central government funded	Crown (e.g. PGF)	Low	Low
Development contributions	Council / developer	High	Moderate
Targeted rate	Council / Kāinga Ora	Low	High
SPV / IFF	Private / SPV	Low	High

# Addressing sector challenges

## Sector challenges

Rotorua is facing several core challenges in addressing its housing issues.



### Development economics

The cost to deliver new housing often exceeds affordable and market price points, making new housing development uneconomic (unfeasible).



### Unlocking land for development

Sporadic supply of sections for development and (iwi) land owners with a desire for ongoing ownership, limit the potential for large land developments. Large investment in infrastructure is required which (in some cases) is making land uneconomic for development.



### Funding and affordability

Balance sheet and funding constraints, and limited ability to increase rates reduces available council funding, while home buyers cannot afford the full cost of infrastructure.

## Kāinga Ora to partner with local iwi to deliver a range of housing across the continuum

The structure proposed seeks to address the challenges identified through a partnership between Kāinga Ora and iwi.

The structure aims to increase the supply of new housing utilising Kāinga Ora led development to reduce the cost of delivery and fund upfront cost, while at the same time using a range of mechanisms to help improve affordability. Importantly, this type of partnership is already strongly referenced in existing (and recently completed) policy, including the Urban Development Act 2020 and National Housing Policy.

## Questions for this study

This study focuses on how structures can be used to facilitate housing development across the housing continuum on land in varying ownership – specific considerations will include:



### Governance and control:

*How can the interests of central government, local government, iwi and the private sector best be balanced to deliver new housing?*



### Delivery and implementation:

*How can development be structured to appropriately allocate risks, reduce the cost of delivery, and maximise development potential and wellbeing outcomes?*



### Funding and affordability:

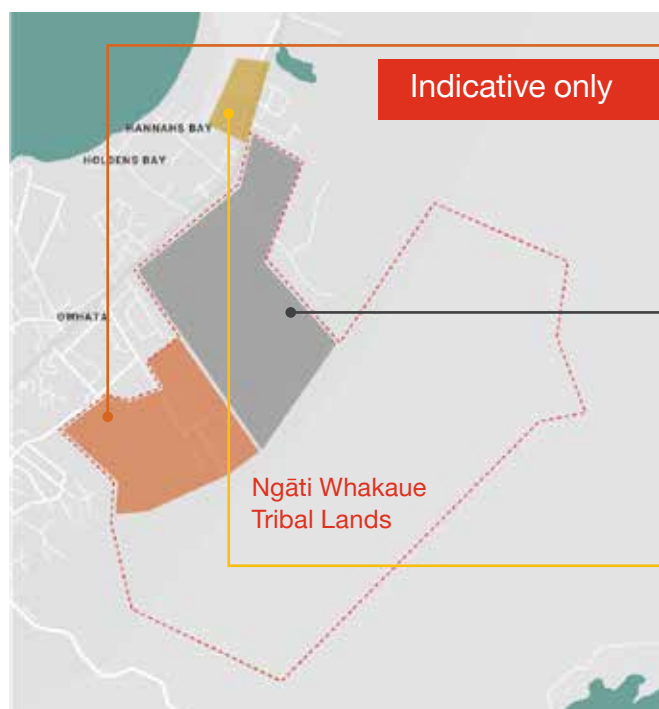
*How can development be funded with minimal impact on council with the cost of infrastructure aligned to beneficiaries?*

# Rotorua urban development projects

## Projects overview

The identified projects include housing and industrial development on land owned by Ngāti Whakaue Tribal Lands (NWTL) and Rotorua Airport, including enabling roading and stormwater infrastructure.

This will help facilitate the development of Māori land, provide housing and generate short and long term employment.



Source: Proposed Rotorua District Plan 2012, CIP application, Maori Land Online

### Housing development one – Existing zone

Residentially zoned land owned by Ngāti Whakaue Tribal Lands (NWTL) has capacity for 900 to 1,100 residential lots. NWTL is in the development phase for the first 179 lots. In order to progress any further developments on the land, infrastructure upgrades are required.

### Housing development two – Proposed zone

RLC is initiating a plan change to extend the current residential zone northwards to include NWTL farmland up to the existing business park, increasing the number of potential lots by 1,400 to 2,500. The main impediments to growth here are roading (direct access to SH30) and storm water.

### Rotorua Airport industrial/business park

Development in line with Airport Masterplan to unlock existing airport land to support related industries such as logistics, manufacturing and other commercial/ industrial uses. Requires development of supporting infrastructure including three waters and roading, including SH30 intersection, aligned with residential zone infrastructure requirements.

### High level residential development summary

Existing residential zone	Proposed residential zone
900 to 1,100	1,400 to 2,500

## Potential project benefits

Opportunity to address housing shortages and unaffordability

Potential efficiencies through master planning approach and joint procurement, enabling shared infrastructure

Potential for Kāinga Ora, iwi, and private sector partnership

Opportunity for alternative funding models to enable and accelerate development

# Structuring tools

*This model focuses on Kāinga Ora led residential development in partnership with iwi, with infrastructure contributions from land and property owners*



## Delivery structure

### Council delivery

New entity
<b>Partnership</b>
Joint procurement
Traditional delivery

### Crown delivery

Stakeholder
Partnership
Shareholding
<b>Crown delivery</b>

### Private delivery

<b>Service provider</b>
Partnership
New SPV entity
Full privatisation

### Iwi involvement

Project sponsor
<b>Partnership</b>
Shareholding
Iwi delivery



## Funding sources

### Council funding

General rates
Targeted rates
Developer contributions

### Crown funding

<b>Crown grant</b>
Seed capital
Specific Crown funds

### Value capture

<b>Negotiated contribution</b>
<b>Land intervention</b>
Property development
IFF levy

### Direct

Private capital
Commercial opportunity
Tax/duty
User pays



## Financing sources

### Public finance

Crown loan

DMO (Crown facility)

LGFA

**Crown equity**

### Private finance

Bank debt

**Bonds/private placement**

Subordinated/convertible instruments

**Private equity**



## Capital delivery

### Commercial model

**Alliance contract**

**Construct only**

**Design and build**

**Managing contractor**

Enterprise model

Design, build, operate, maintain

Design, build, finance, operate, maintain

Turnkey



## Operations delivery

### Commercial model

Self perform

Operate only

Operate and maintain

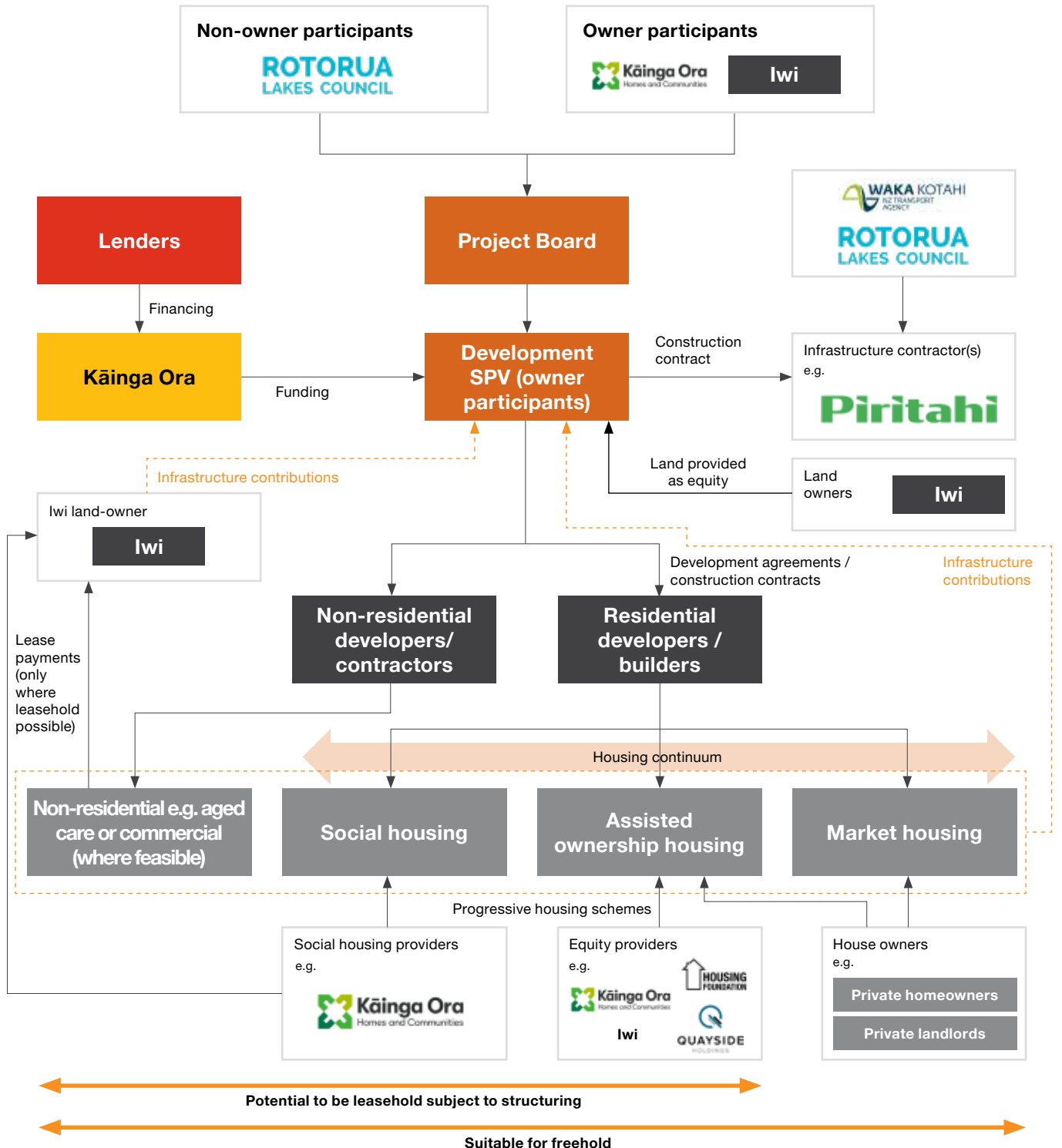
Design, build, operate, maintain

Design, build, finance, operate, maintain

Turnkey

# Proposed model

Generic structure to be tailored to individual project specifics

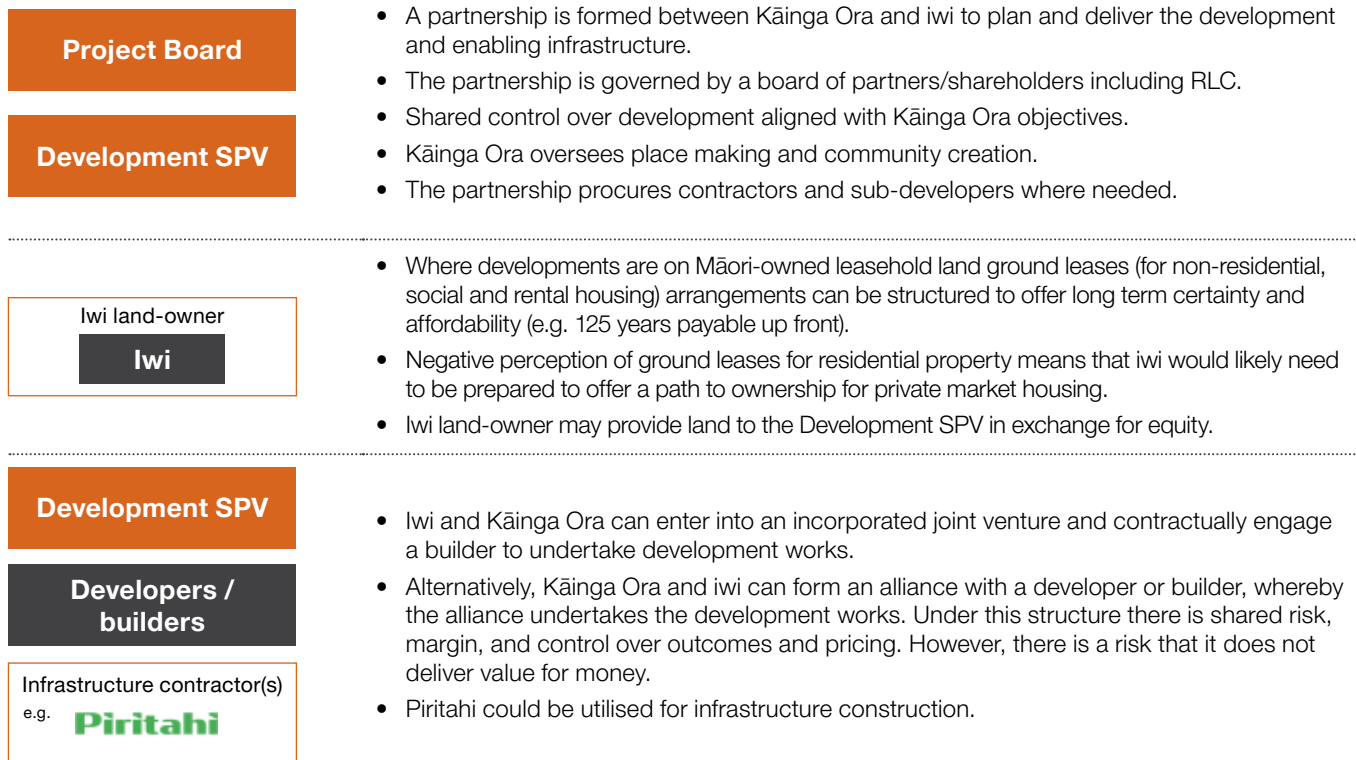


Note: Piritahi is an alliance of companies that prepare land for development and deliver infrastructure for Kāinga Ora

## Explanation and evaluation



### Delivery, capital and operations structure



### Features of the proposed structure include:

- ✓ Collaborative approach between Kāinga Ora, iwi and the private sector
- ✓ Opportunity to unlock Maori-owned land for development, with ongoing ownership for certain development types (provided freehold land is provided)
- ✓ Development outcomes have the potential to be aligned with Kāinga Ora objectives and construction accord
- ✓ Has potential to deliver a range of housing across the housing continuum



## Funding and Financing

### Crown

- Crown funding provided for development and enabling infrastructure via Kāinga Ora.
- Funding repaid through sale of houses and ongoing infrastructure contributions where applicable.
- Co-funding of relevant roading infrastructure by the NZ Transport Agency (as per existing obligations).

### Lenders

- Debt is raised by Kāinga Ora to finance infrastructure and development.
- Unless an alliance, developer would commit capital (equity and debt).

### Iwi land-owner

#### Iwi

- Iwi land owners may commit land as equity.
- Land owner to pay infrastructure contributions under commercial arrangement or levy.
- Contributions funded using land proceeds or leasehold income.

### Sub-developer

e.g.



- Other beneficiaries to pay infrastructure contributions for a proportion of enabling infrastructure under a commercial arrangement.
- Land may also be committed in return for equity.

### House owners

- Owners to pay ongoing infrastructure contributions via an encumbrance or other mechanism.

### Progressive home ownership

- Kāinga Ora and private equity support under progressive home ownership schemes to bridge the gap between the market price on an entry level home and the price which the home buyer can afford.
- Opportunity for iwi to invest and share in upside house price appreciation.

### Social housing providers

- Social housing providers to own and provide social housing services, with lease payments to land-owner where housing is on leasehold land.

### Features of the funding and financing solution:

- ✓ Kāinga Ora funding reduces cost and margin requirement, lowering cost to deliver housing
- ✓ Infrastructure contributions align the cost of infrastructure with beneficiaries over time
- ✓ Progressive home ownership schemes improve housing affordability
- ✓ Progressive home ownership schemes provide iwi and other investors with investment opportunity and potentially house price appreciation upside

## Case study

*While the characteristics of the Hobsonville Point development differ considerably to housing developments in other regions, including Rotorua, the development approach and structure provides learnings for smaller projects, and projects that will initially require considerably more subsidy and Crown support.*

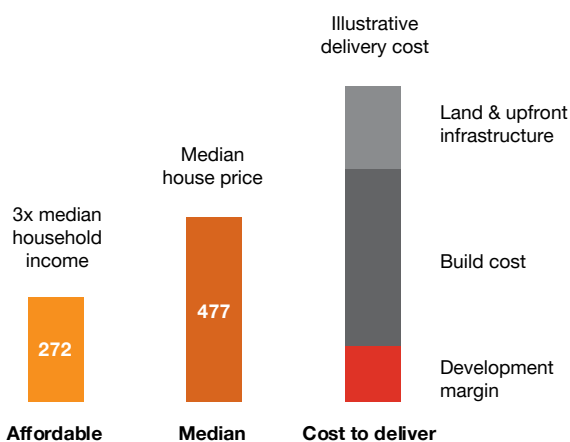
### Hobsonville Point

- Hobsonville Point is a successful example of a Crown led residential development in partnership with local government and the private sector.
- There were a number of factors that were core to the success of the project, which are outlined in the table below.

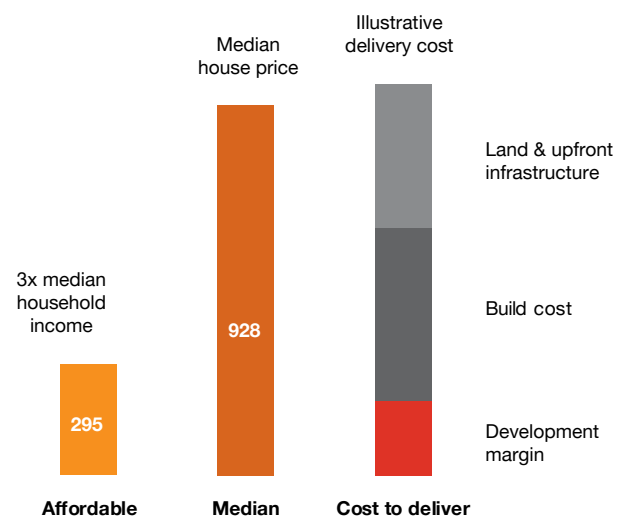
Factors	Hobsonville Point	Rotorua development
Crown owned land	✓	✗
Highly attractive land (e.g. prime waterfront real estate)	✓	-
Strong development economics (e.g. high market house prices)	✓	✗
Social infrastructure (e.g. schools part of early development)	✓	-

- As the example below illustrates, while land prices are significantly higher in Auckland than Rotorua, the cost to deliver a new house is closer to the median house price, improving development economics.

#### Rotorua price points



#### Auckland illustrative price points



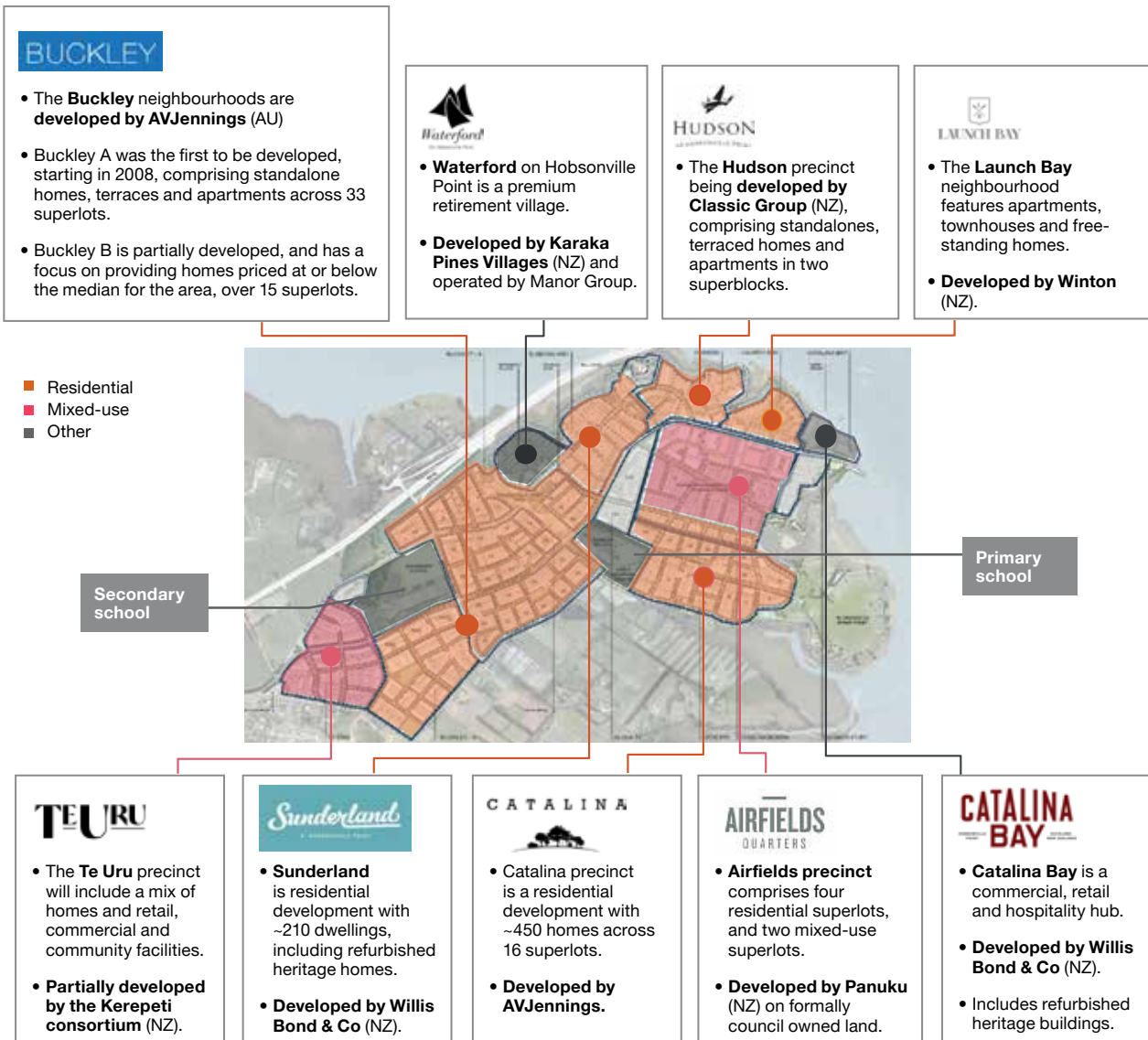


## Case study

### Hobsonville Point

- Hobsonville Point is a Crown led residential, community and commercial development on former Hobsonville Airbase land in north-west Auckland. The Hobsonville Land Company (HLC) was formed in 2006 as a wholly-owned subsidiary of Housing NZ Corporation (now Kāinga Ora) to lead the planning and delivery of this greenfield development in partnership with the private sector.
- Hobsonville Point will ultimately be a new community of approximately 4,500 households, with over half currently constructed, and is the largest master-planned residential development in New Zealand. It includes two new schools, employment areas, retail, community facilities and a new ferry connection to downtown Auckland. It is of higher density when compared to more conventional suburbs, with a range of two-to-three-storey terraces, apartments of up to six storeys, and duplexes, as well as standalone houses on small lots.

### Precincts



## Planning and consenting

- The development was enabled through collaboration between the former Auckland Regional Council, Waitakere City Council, and government by way of changes to the Waitakere District Plan and zoning framework that designated indicative land uses and policy for development.
- Comprehensive Development Plans (CDP) were developed for each precinct within the area, including subdivision pattern, key uses, development requirements and design guidelines. CDP applications were made by developers.
- Following approval of CDP applications, developers applied for specific subdivision and land use consents to authorise development, complying with CDP requirements and relevant planning rules, followed by the building consent approval process. All designs are reviewed by a Design Review Panel with sign-off by Auckland Council.

## Infrastructure provision

- **Bulk infrastructure:** The Hobsonville Point development falls within Auckland Council's wider North West Transformation project, aimed at facilitating growth in Auckland's northwest. Responsibilities for roading (outside Hobsonville Point) and public transport infrastructure were assigned to Auckland Transport, to provide new roads and upgrade and expand existing public transport infrastructure, including a new ferry terminal (completed in 2013) and park and ride facilities. Similarly, Watercare was responsible for development of bulk water infrastructure to support the development.
- **Local infrastructure:** Typically developers are responsible for infrastructure within each superlot, but specific arrangements were entered into with individual parties. HLC and Panuku have an agreement to jointly fund certain shared roads (Launch Rd and Hobsonville Point Road).
- **Schools:** The primary and secondary schools were procured by the Ministry of Education through a PPP contract with Learning Infrastructure Partners (a consortium of contractors, consultants and investors) to design, finance, built and maintain the schools for 25 years.
- **Other:** All property owners are required to be members of the Hobsonville Point Residents Society with an annual membership levy covering community costs and maintenance of public spaces, in addition to that provided by Auckland Council.

## Partnerships

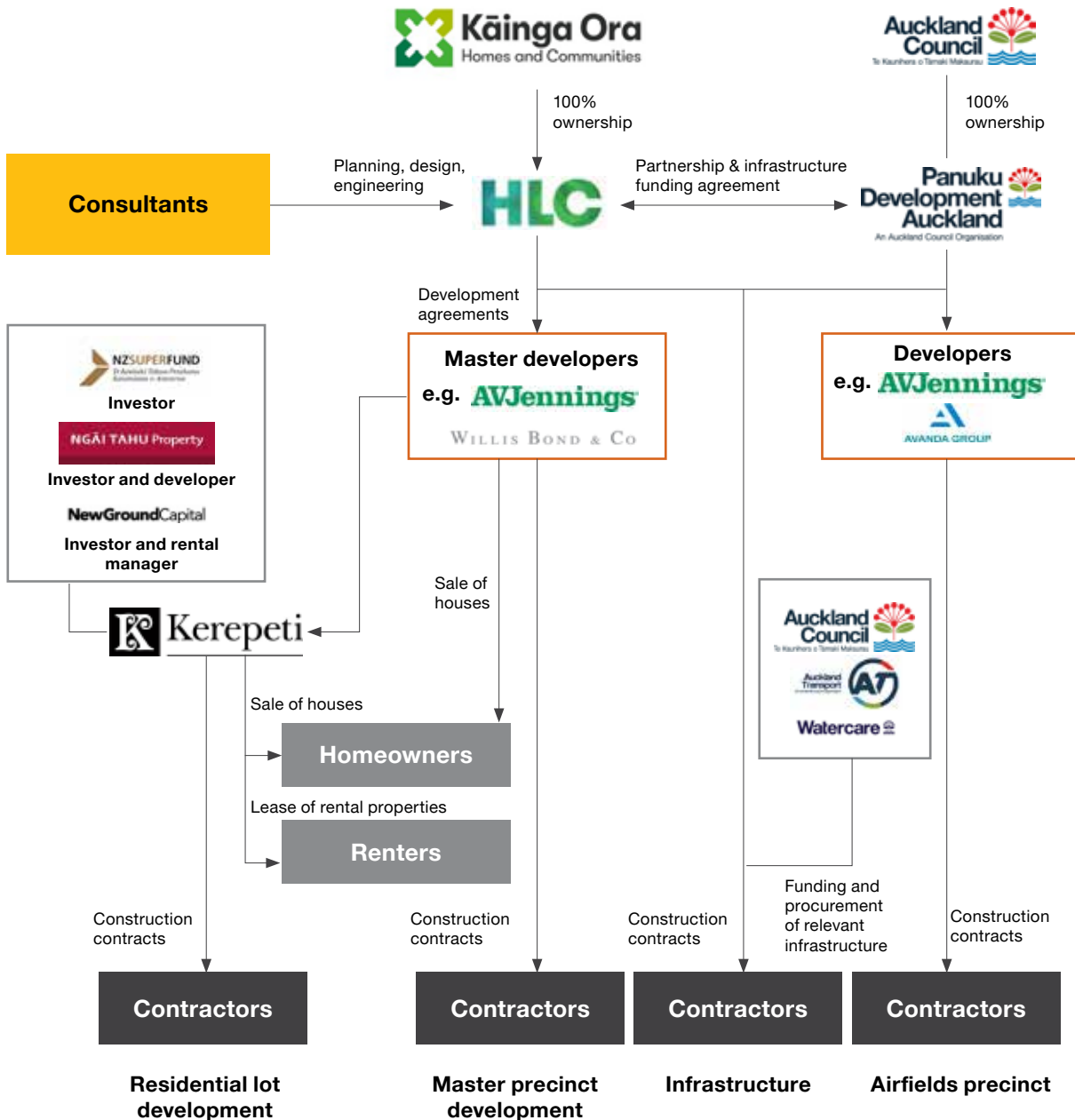
HLC is leading the planning and delivery of the project in partnership with the public and private sectors, including with:

- **AV Jennings** as development partner for the Buckley and Catalina precincts.
- **Willis Bond & Co.** as development partner for the residential Sunderland precinct and commercial Catalina Bay precinct.
- **Classic Group, Winton and others** as development partners for other residential developments.
- **Kerepeti consortium (New Ground Capital, Ngāi Tahu Property, the NZ Super Fund)** on a mixed housing development of 208 homes, of which 47 are to be retained by the consortium as long term rental properties.
- **Panuku Development Auckland** (Auckland Council's urban regeneration agency) to develop the Airfields precinct on Panuku owned land, originally planned as a marine industry precinct but subsequently re-planned as mixed-use residential and commercial development.
- **Karaka Pines Villages** to develop a retirement village, operated by related **Manor Group**.
- **Gecko Trust** and **EcoMatters Environment Trust** to establish the plant network.

Case study

# Hobsonville Point

## Simplified structure (example projects)





## Industrial development

# Sector overview

### Context

Globalisation and digitisation has resulted in significant change in the industrial land market in New Zealand. Many industrial operations have moved offshore or ceased operations altogether. The economic impacts of this are particularly apparent in areas that are heavily reliant on industry, such as Kawerau.

### The Kawerau economy

Kawerau's economy is dominated by processing and manufacturing sectors, in particular wood and paper products. There are currently three operational mills in Kawerau, with the Tasman Mill being one of the largest employers in the Eastern Bay of Plenty.

Kawerau is home to significant geothermal resources which are used in existing industrial applications, including mills and dairy processing facilities, and provide opportunity for further commercial development. The Kawerau geothermal power station commissioned in 2008 produces 100MW of power.

Kawerau also benefits from transportation infrastructure providing connections to the broader region, including a direct rail freight link to the Port of Tauranga, which plays a significant role in transporting forestry products from the region.

Kawerau's GDP per capita has declined over the last 10 years, in part driven by challenges in the pulp and paper industry, and closures to local processing operations.

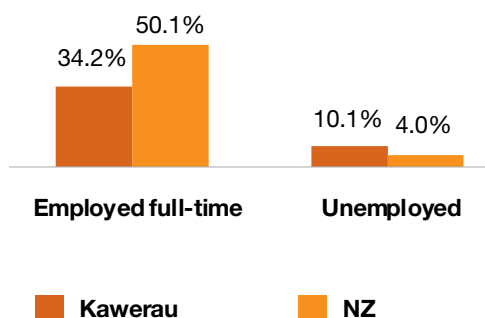
### The Kawerau labour market

Kawerau has high levels of unemployment and low incomes relative to the national average, as found in the 2018 Census. This has led to a migration of working age people out of the region.

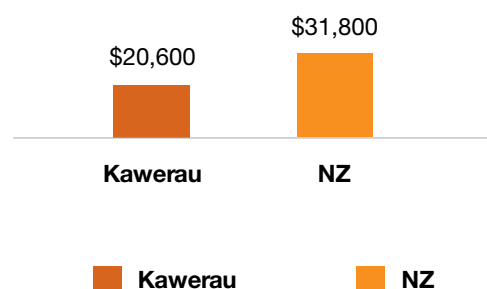
Lower incomes reflect a high proportion of employment in the primary industry and in lower skilled roles, such as drivers and labourers. Living costs are also lower than average in Kawerau, where a higher proportion of people own their own home (60% vs 51% nationally) and median weekly rents are lower (\$200 vs \$340 nationally).

Employment and income levels in Kawerau highlight the need to encourage economic development, this may be helped by attracting certain businesses to the region. Low levels of employment and incomes in Kawerau imply that there is a surplus of labour available, and at a lower cost than other urban centres.

#### Employment



#### Median Income



## The Kawerau labour market supports industrial investment



### Workforce availability

Low levels of full time employment and high unemployment suggests there an available pool of labour in the area.



### Labour costs

Lower median incomes, supported by lower living costs, imply that labour costs are lower than in other urban centres although labour is lower skilled and supply chain costs need to be considered.

## Impact on Māori

Māori make up a large portion of the population within the Kawerau district. The lack of available jobs has had a noticeable impact on the Māori population with higher unemployment compared to the district and rest of the country. Engaging the Māori community and providing pathways for young people will be important key to improving employment and wellbeing within the region.

**61.7%**

Māori population Within Kawerau compared to national average of 16.5%

**13.1%**

Unemployment of Māori Compared to 10.1% unemployment for the total district and 4.0% nationally



# Demand challenges

## Attracting new business investment to Kawerau

It is extremely difficult to estimate the depth of the market for businesses willing to relocate to, and establish a significant industrial presence in, Kawerau. Investing in infrastructure alone will not in and of itself attract new business to the area. Other levers and incentives (such as new housing, worker training, subsidies, etc.) will likely be needed (i.e. a holistic approach is likely necessary).

## The pool of potential occupiers/buyers

If Kawerau industrial land/sites can be delivered to the market efficiently, Kawerau could represent a cost-effective option for businesses that currently lease or own industrial land in larger/more expensive centres (i.e. Auckland or Hamilton), or whose business may align with Kawerau's existing core sectors. Relocation to Kawerau is likely to be appealing to businesses:

- Might benefit from a supply chain perspective of a central North Island location.
- Currently paying high rent, or owning land with a high alternative use value.
- Seeking expansion, but experiencing capital challenges.
- Positioned in old or 'tired' premises requiring material capital expenditure, and attracted to cheaper accommodation options.
- That are not reliant on delivering products to their immediate market (i.e. they export nationally or offshore).
- With a large base of low skilled workers, and thin upper management.
- Where management is interested in supporting regional economies and communities.

## Key considerations for businesses considering relocation

Multiple considerations would be evaluated by a business before it committed to a significant presence in a new location.



### Competing options (see following page):

alternative industrial options with proximity to rail or in existing inland ports at similar price points (possibly wider Hamilton and South Waikato), but with potentially greater amenity (due to location) and proximity to supply chains. Businesses considering relocation will likely face greater logistical challenges in Kawerau relative to the competing locations above.



**Management requirements:** the level and quality of amenity (including housing options) available to attract and relocate key management staff and skilled workers.



**Access to workforce:** the applicability of the Kawerau labour force to the business, and the number of skilled workers or management available in Kawerau (reducing relocation requirements).

## Other key considerations impacting delivery



**Appropriate levels of support:** Ensuring that the appropriate support is given to businesses to relocate, and a holistic approach is taken with consideration to the broader requirements of relocating (provision of the appropriate housing supply, training opportunities for workers etc.).



**Staging of investment:** Consideration as to whether investment is undertaken speculatively or following the commitment of an anchor business as a catalyst. Speculatively investing and failing to attract businesses from outside of Kawerau could result in an oversupply of infrastructure and land.

# Area of focus

## Competing industrial markets

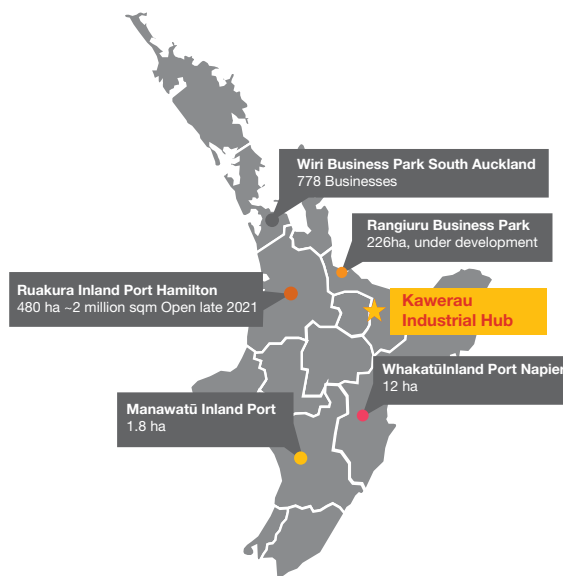
Businesses looking to relocate to Kawerau would likely consider the alternative competing industrial hubs. Below are examples of alternative potential or existing industrial locations for comparison.

### Industrial market rents

Existing industrial locations such as Auckland (secondary industrial stock) and Hamilton would likely be key competing locations for businesses who may potentially relocate to Kawerau. Noting the greater amenity provided by these locations for businesses, Kawerau would likely need to offer a discount on rent and other occupancy costs relative to these markets to attract new businesses. Auckland secondary warehouse industrial rents (August 2020) are typically between **\$100 per square metre (psm) to \$125psm** (\$110psm adopted as mid rent) and Hamilton industrial rents are typically between **\$75psm to \$115psm** (\$95psm adopted as mid rent).

To provide a comparison, we have completed high level analysis on what an estimated economic rent (i.e. the rent which would make developing a new industrial hub viable) would be for a party willing to develop industrial land for the betterment of Kawerau (e.g. Kawerau District Council or another party seeking wider outcomes for Kawerau and willing to forgo a development margin). The analysis is high level and illustrative only based on general industrial development assumptions.

Assuming an estimated (illustrative only, valuation advice required for accuracy) land cost (i.e. the cost to buy greenfield land for a new industrial build in Kawerau) of \$60psm, and high level industrial cost assumptions, an economic rent range for Kawerau is estimated to be **\$100psm to \$110psm**. This economic rent range assumes a new industrial premises built on greenfield land without a development margin.

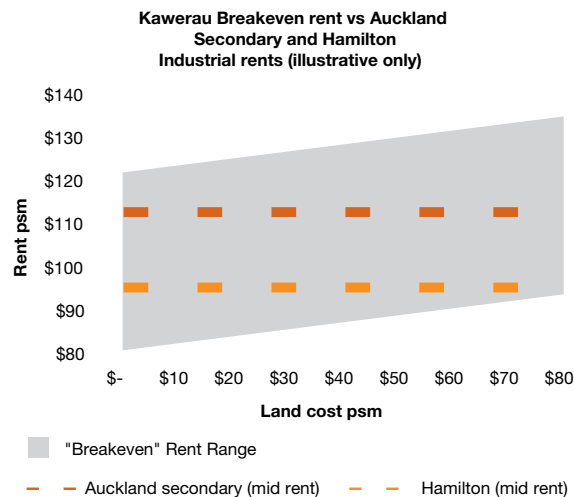


### Illustrating incentives/levers

At the estimated economic rent (**\$100psm to \$110psm**) Kawerau industrial buildings would be competing with industrial rents in Hamilton.

To illustrate potential levers to incentivise a business to relocate to Kawerau (i.e. reducing the rent) we have discounted the cost of land in our illustrative analysis, with the resulting impact on economic rent shown on the chart adjacent. The pink dashed line reflects a mid range rent for Auckland secondary (\$110psm) and the black dashed line reflects the mid range rent for Hamilton (\$95psm). Under the high level assumptions adopted, if the land was included at no cost, the economic rental range would reduce to **\$80psm to \$95psm** and the new premises would be in line with lower industrial rentals in Hamilton.

Note this example is for illustrative purposes only and relies on high level assumptions around size, typology, build costs and land values. This analysis is highly sensitive and small changes in the assumptions can have material impacts on the resulting outputs.



# Area of focus

## Kawerau and Eastern Bay of Plenty development entities

### Existing groups focussed on economic development in the region

There are several entities in Kawerau and the broader Eastern Bay of Plenty sub-region that are focussed on fostering economic development. In order to further attract new businesses to regions such as Kawerau, the skills and relationships of these existing groups should be leveraged, in combination with a greater use of alternative funding, financing and delivery tools.

Existing economic development entities in the region are outlined in the table below.

#### Industrial Symbiosis Kawerau



- Industrial Symbiosis Kawerau is a collaboration of parties working together for mutual gain in the Kawerau area, through sharing of resources and capitalising on Kawerau's geothermal capabilities and abundance of natural resources.
- The initiative started as a steering group of local businesses and organisations with a vision for a better future, with organisations outside the region also becoming stakeholders over time.
- Key parties include Sequal, Kajavala Forestry, SLH Contracting, Kawerau District Council, Putauaki Trust, Māori Investments Limited, Allied Industrial Engineering, Ngati Tuwharetoa Holdings Ltd.

#### TOI EDA



- TOI EDA is an Eastern Bay of Plenty economic development agency, with goals to:
  - attract people to work, live and play in the Eastern Bay of Plenty
  - encourage alignment of Māori economic development activity and Toi EDA activity
  - support and develop industry
  - advocate for improved infrastructure and transportation
  - foster communication with the community and partners
  - secure and diversify the funding base.
- Stakeholders in TOI EDA include Kawerau District Council, Ōpōtiki District Council, Whakatāne District Council and Bay of Plenty Regional Council.

#### Bay of Connections



- Bay of Connections is a regional group with a framework designed to support local development opportunities, address cross-cutting regional challenges, and ultimately help the region advance.
- It will engage with councils, economic development agencies and central government agencies on immediate areas of support for regional economic development.
- Bay of Connections is funded by the Bay of Plenty Regional Council, and has also received funding from New Zealand Trade and Enterprise (NZTE).

# Addressing sector challenges

## Sector challenges

Local authorities are facing a number of core challenges in supporting regional growth and commercial activities.



### Attracting investment

Difficulty attracting investment and new business due to the limited interest from many companies and challenging economics.



### Infrastructure requirements

Improved transport links required to improve services for existing business and promote future investment, growth and job creation.



### Funding and affordability

Funding from private businesses is required to support project economics, align cost to benefit and help support the case for public sector funding.

## Kawerau Industrial Hub – supporting regional commerce through transportation

An economic development entity is established to help attract new businesses to the area and facilitate investment in infrastructure. By utilising appropriate incentives and other levers it will encourage private development and commercial activity, promoting economic growth and job creation.

To fully unlock the potential benefits, a coordinated region-wide (potentially wider than just Kawerau) investment programme will be required. The economic development agency can assist with this, through identifying and pursuing projects that could form key 'limbs' in the broader programme.

## Questions for this study

As a model for other regional development projects, this study will focus on how new businesses can be attracted and how transport infrastructure can be delivered, to encourage economic development – specific considerations will include:



### Governance and control:

*How can the governance of projects best be implemented to balance local government, central government and private interests?*



### Delivery and implementation:

*How can works be procured to leverage existing capabilities while providing appropriate risk allocation, and how will shared assets be managed on an ongoing basis?*



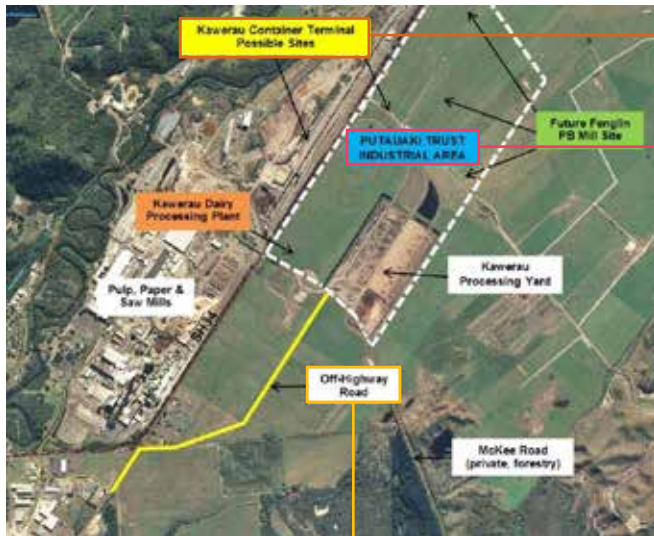
### Funding and affordability:

*How can funding sources be optimised so that beneficiaries share in the cost of infrastructure alongside local and central government?*

# Kawerau Industrial Hub

## Projects overview

Development the Putauaki Trust Industrial Hub to provide support for heavy goods transport and the development of additional industrial lots. Works include the addition of a rail connection and improved roading access.



### Container Terminal & Rail Siding

**Capital cost: \$9.6m**

The Putauaki Trust Industrial Hub requires an efficient rail link to connect heavy industry to national and global markets. The project will involve the construction of a container packing and bi-modal transshipment terminal, including rail siding to allow for the loading and unloading of containers. This will take pressure off roads by removing an estimated 40 daily truck trips from local roads. The rail sidings are proposed to be vested with KiwiRail upon completion.

### Kawerau off-highway road

**Capital cost: \$2.8m**

Provide an off highway connection between the Kawerau Industrial Park (Manukorihi Drive) with McKee Rd. The road will be a new 1.6km stretch direct to the Kawerau Container Terminal. This will be used by large vehicles that cannot use the existing highway. Sequel Lumber may potentially own and maintain the road.

### Putauaki roading extension and infrastructure

**Capital cost: \$7.5m**

The extension will connect around 50ha of vacant plots within the Industrial Hub to existing roads by adding a turning bay and a roundabout on SH34 at a cost of \$5m. The upgrades are to be vested in NZTA on completion as part of the State Highway. Remaining \$2.5m relates to internal infrastructure to be developed to support the hub.

## Potential project benefits

Potential for private sector and iwi involvement

Not business-as-usual investment

Supports regional economic development

Need to focus on tenant identification and incentivisation



# Structuring tools

*This model focuses on establishing an economic development entity to attract new businesses into the area, utilising council and Crown incentives. Costs of infrastructure borne by beneficiaries through infrastructure contributions or levy.*



## Delivery structure

### Council delivery

<b>New entity</b>
Partnership
Joint procurement
Traditional delivery

### Crown delivery

Stakeholder
Partnership
Shareholding
Crown delivery

### Private delivery

Service provider
<b>Partnership</b>
New SPV entity
Full privatisation

### Iwi involvement

Project sponsor
<b>Partnership</b>
Shareholding
Iwi delivery



## Funding sources

### Council funding

General rates
Targeted rates
Developer contributions

### Crown funding

Crown grant
Seed capital
<b>Specific Crown funds</b>

### Value capture

<b>Negotiated contribution</b>
<b>Land intervention</b>
<b>Property development</b>
IFF levy

### Direct

<b>Private capital</b>
<b>Commercial opportunity</b>
<b>Tax/duty</b>
<b>User pays</b>



## Financing sources

### Public finance

DMO (Crown facility)
Crown loan
<b>LGFA</b>
<b>Crown equity</b>

### Private finance

<b>Bank debt</b>
Bonds/private placement
Subordinated/convertible instruments
<b>Private equity</b>



## Capital delivery

### Commercial model

Alliance contract
Construct only
<b>Design and build</b>
Managing contractor
Enterprise model
Design, build, operate, maintain
Design, build, finance, operate, maintain
Turnkey



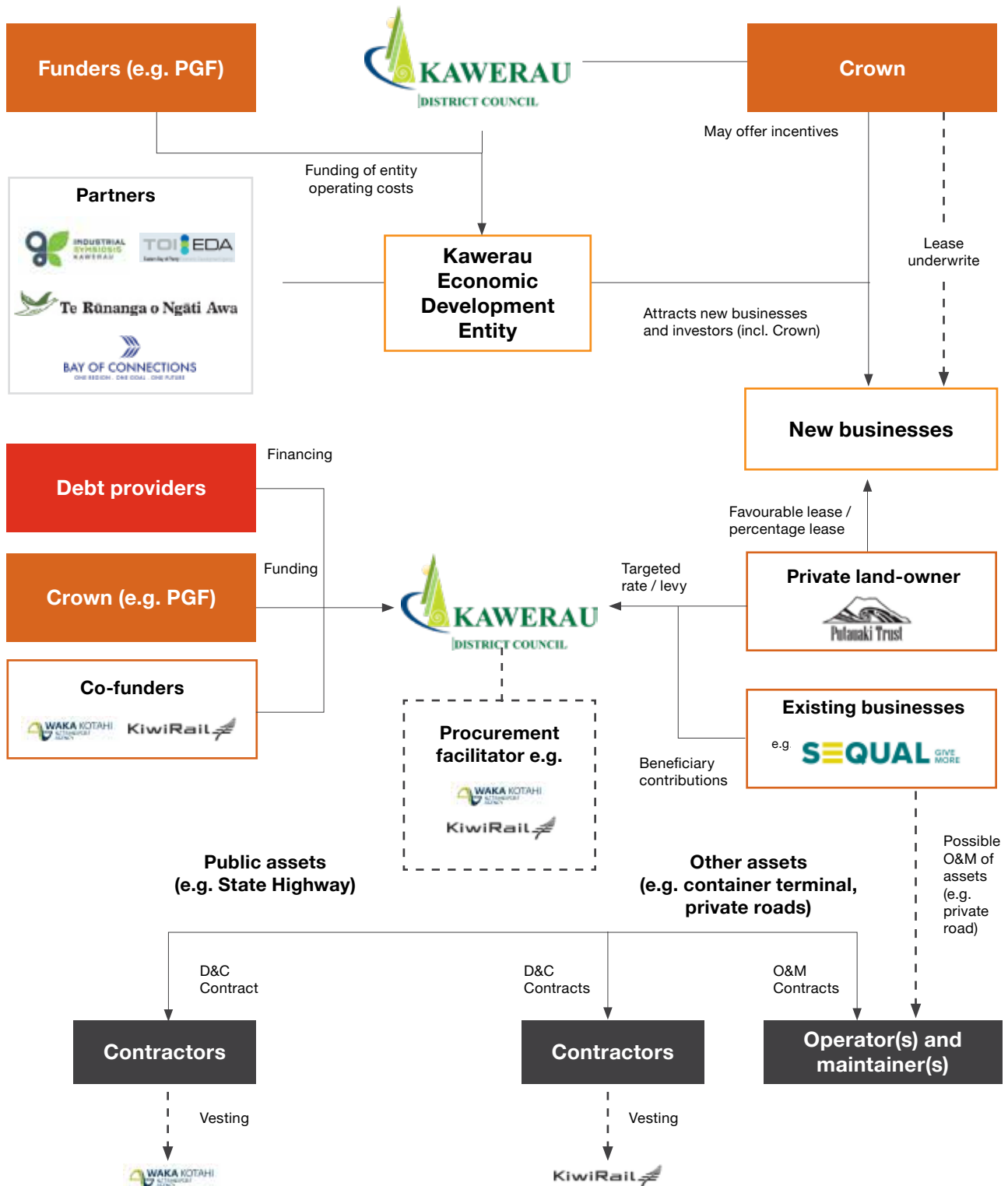
## Operations delivery

### Commercial model

<b>Self perform</b>
<b>Operate only</b>
Operate and maintain
Design, build, operate, maintain
Design, build, finance, operate, maintain
Turnkey

# Proposed model

## Commercial structure diagram







## Explanation and evaluation



### Delivery, capital and operations structure

#### Kawerau Economic Development Entity

- Establishment of a local economic development entity sponsored by Kawerau District Council tasked with attracting new businesses and investors to the area.
- Partnering with existing regional development groups and local iwi.
- The entity negotiates incentives (both financial and non-financial e.g. workforce training, fast-tracked processes, infrastructure investment, land availability, access to resources) with central and local government to attract new businesses to the area. The entity helps to attract government (e.g. PGF) and private funding.
- Entity operating costs could be supported by grants (e.g. PGF), the regional council, neighbouring councils or existing development entities.
- Possibility to involve Bay of Plenty Regional Council at the governance level and / or extend model regionally.

#### Private land-owner e.g.



- Favourable lease terms or lease with future upside (e.g. percentage lease) offered by private land owners (e.g. Putauaki Trust).
- Beneficiary contributions toward infrastructure through levy.

#### Existing businesses e.g.



- Existing businesses contribute to infrastructure through commercial negotiation.



#### Contractor(s)

- Procurement facilitated by council, leveraging existing expertise, including with assistance by transport providers (NZ Transport Agency and KiwiRail).
- Rail and roading infrastructure activities procured separately to ensure risk allocation and market interest and capability are aligned.
- Public assets (e.g. state highway, rail assets) vested to NZ Transport Agency and KiwiRail.
- Potential operation and maintenance of private assets (e.g. private road) by existing businesses.

### Features of the proposed structure include:

- ✓ New entity established to **attract and incentivise new businesses** in invest in the region.
- ✓ Opportunity to **unlock Māori-owned land** for development.
- ✓ **Facilitates investment in infrastructure** to enable development.
- ✓ **May provide procurement efficiencies**, leveraging existing expertise.



## Funding and Financing

### Crown

- Possible Crown funding (e.g. PGF) of economic development entity operating costs.
- Crown funding (e.g. PGF) of projects where relevant / possible.
- May underwrite occupancy rent.

### Debt providers

- Finance raised against targeted rate / levy and/or lease income where needed.

#### Private land-owner

e.g.



#### Existing businesses

e.g.



- Some cost of infrastructure allocated to land owners and businesses in the industrial hub via a targeted rate/levy or commercial negotiation.
- The encumbrance model may be used to provide long term revenue certainty, which can support financing (if required). The encumbrance model is beneficial where there is insufficient scale for an IFF levy to be economic, and has additional flexibility to negotiate specific encumbrances with major land owners. Grandfathering, and other, mechanisms may be leveraged to assist with affordability.
- Preferred because of the flexibility to negotiate specific encumbrances with major land owners.
- Additional funding contributions where there is additional private benefit (e.g. Sequal meeting O&M costs in relation to the private road).



- Co-funding of public assets (e.g. NLFT funding of state highway improvements).

### Features of the funding and financing solution:

- ✓ **Costs of infrastructure borne by beneficiaries** through infrastructure contributions or levy.
- ✓ May improve the case for, and help to facilitate, Crown funding.
- ✓ Proposed funding arrangement may **reduce the burden on council**.

## Commercial and tourism development

# Sector overview

### Tourism in Rotorua

Tourism is the largest industry in Rotorua accounting for 14.2% of 2019 GDP for the district, compared to the national average of 5.4%. Rotorua is the fourth most visited place in New Zealand by international visitors.

The main economic contributors to the tourism industry are accommodation, bars, restaurants, leisure activities and retail sectors. Recent large-scale investment in existing tourism attractions includes development of The Big Splash at Rainbow Springs (\$10 million), New Zealand Kiwi Hatchery (\$15 million), Rotorua Museum (\$22 million), Skyline Rotorua (\$20 million), Te Puia (\$17.5 million) and Polynesian Spa (\$4 million). Several new attractions and activities have also opened, including Zorb Rotorua, Rotorua Canopy Tours, Rotorua Paddle Boarding, Kahu Kiwi, Motion Entertainment, and Redwoods Treewalk.

Current tourism development is centred around the lakefront and Whakarewarewa Forest.

In the year to March 2020, 60% of tourism revenue was from domestic travellers with ~\$500m spent in the region. Domestic tourists are likely to be an increasing focus for the region moving forward given the impacts of COVID-19.

### The impact of COVID-19 on tourism

COVID-19 forced the tourism industry to a standstill – with no international visitors and no domestic tourism during Level 3 and 4. The downturn has placed a significant strain on small businesses that dominate the market, and some larger operators have put businesses into hibernation (e.g. Ngai Tahu). Many enterprises may be forced to close as they are unable to operate profitably with additional safety requirements or they are not be able to sufficiently replace international visitor spending which underpins breakeven revenue.

Recovery will be protracted; forecasts indicate anywhere between 3 and 5+ years. A coordinated recovery plan is underway involving the Government and industry to implement a recent \$400m tourism fund to support businesses as the industry recovers.

### Key reasons for investing in tourism



#### Urban regeneration

Master planning of Rotorua town centre and lakefront, with improved utilisation the community resources of the region will attract visitors and stimulate the tourism industry.



#### Domestic visitor numbers

Given the impacts of COVID-19 domestic visitors will play a more significant role in supporting the tourism industry in the short to medium term. While Rotorua has been successful in attracting domestic tourists it will face competition from other domestic destinations.



#### Attractions and activities

A key focus will be to ensure that attractions and activities remain appealing and act as a drawcard to the region encouraging spending on other services e.g. accommodation.



#### Visitor spending

A key driver will be to maximise the spending in the region from each visitor, involving improving visitor experience and introduction of higher value services.

# Rotorua commercial and tourism property market

## Rotorua hotel stock



Rotorua is the birthplace of tourism in New Zealand with roots going back to the 1880s when the city aspired to become the spa capital of the Southern Hemisphere. Today it is the fourth most visited place in New Zealand and was ranked the fourth best destination in the world for travel experiences by Trip Advisor.

Visitor accommodation has organically developed over decades with a boom in hotel construction in the 1980s and 1990s. There have only been two additions to the Rotorua hotel market in the last decade – the 36-room Quest serviced apartment hotel in 2012 and the 130-room Pullman Rotorua in March 2020, the first five-star product in this market. Prior to the emergence of COVID-19 it was anticipated that circa 350 new hotel rooms would be required to meet demand expectations by 2025.

Much of the traditional hotel supply was developed along Fenton Street to the south of the commercial centre. This location has become somewhat secondary in recent times, with tourism activity and the town centre shifting in orientation towards the lakefront.

By comparison with other key tourism centres in New Zealand, Rotorua achieves the lowest average daily rate (ADR), for average spend per international visitor. Low average rates and low-yield tourist ratios are in large part a reflection of the quality of the available accommodation with much of the hotel stock ageing and of a lower star rating. The existing visitor amenity provides only moderate attraction to higher-yielding tourists and a relatively high share of price-sensitive, domestic visitors is limiting accommodation rate growth.

YE 2019	Occupancy	ADR
Queenstown	82.50%	\$252.32
Auckland	82.30%	\$196.19
Wellington	78.90%	\$181.94
Christchurch	76.60%	\$159.84
<b>Rotorua</b>	<b>79.10%</b>	<b>\$140.74</b>

Alongside a focussed region wide tourism plan, reinvestment into the existing stock, unlocking of opportunities along the lakefront and prime city centre locations, and the potential redevelopment of poor quality assets are considered key to ensuring the long term success of Rotorua tourism.

### Rotorua commercial property

Demand for Rotorua commercial property is increasingly focussed on quality product. This is evident in both the office, retail and investment markets. Some new commercial development has been brought forward, and has been actively taken up by occupiers. However, the limited scale of new development which has been undertaken points to feasibility. Transactional activity has been limited due to a general shortage of supply which is reflected in tightening investment parameters. There is some indication that adaptive re-use or redevelopment of poorer quality assets is occurring. The ongoing multi-million dollar redevelopment of the lakefront is expected to be a catalyst for tourism growth and future private investment, with the added benefit of refocusing the town toward the lake. A misalignment of development economics and affordability issues are potentially the main impediments to further inner city upgrades and revitalisation.

# Addressing sector challenges

## Sector challenges

There are several core challenges in development of the commercial and tourism sectors.



### Disconnected town

Bulk retail-style development on the fringes of this town have disconnected the city environment. This is a common phenomenon for regional towns, albeit many towns do not have a lakefront asset to catalyse development.



### Demand uncertainty

Reduced tourism in the short to medium-term due to COVID-19 reduces willingness by the private sector to invest in commercial and tourism developments.



### Funding and affordability

Balance sheet and funding constraints (largely caused by significant required investment in infrastructure and feasibility challenges), and limited ability to increase rates, reduces funding available for council to support these ventures.

## Rotorua commercial and tourism development – a coordinated placemaking approach to encourage investment and optimise utilisation of community resources

The proposed structure seeks to address these challenges through creation a new entity responsible for a coordinated vision of investment in commercial and tourism ventures across Rotorua to better utilise community resources.

The structure aims to enable council to create attractive opportunities for private parties to invest in Rotorua by providing certainty, while at the same time involving a range of regional interests including iwi. The new entity would be mandated to catalyse a coordinated regeneration of the town.

It also seeks to provide solutions to mitigate the short-term impacts of COVID-19 through financing instruments.

## Questions for this study

As a model for other areas of commercial and tourism development, this study will focus on how structures can be used to facilitate and optimise investment across multiple projects and involve a range of interests (including council, iwi and private investors) to the benefit the region – specific considerations will include:



### Governance and control:

*How can multiple interests be included and aligned (including council, private investors, and iwi) to deliver a coordinated vision of commercial and tourism development and optimise the use of community resources?*



### Delivery and implementation:

*How can projects of varying scale and characteristics be packaged and contracted to optimise benefits and appropriately allocate risk, and how can the projects be structured to enable and attract private and iwi investment?*



### Funding and affordability:

*How can the financial impact on the local authority and individual ratepayers be minimised?*

# Rotorua tourism projects

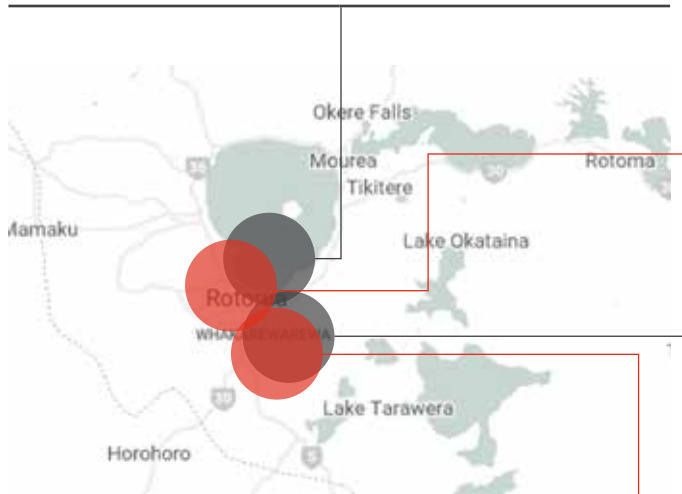
## Projects Overview

The tourism projects identified are extensions to existing projects being undertaken by RLC (with funding support from the PGF). The projects include the development of a new tourism precinct near the lakefront redevelopment and additional developments for the Whakarewarewa forest.

### Existing tourism linked projects

Rotorua Lakefront development	
\$40m	2019 to 2024
<p>The project aims to improve the visitor experience and incentivise private and iwi investment by improving public amenities and access to existing and potential commercial sites. Funding has been agreed between RLC and the PGF and stage 1 began work in October 2019. The project business case forecasts \$306m additional private and iwi investment into the region as a result of the works.</p>	

Whakarewarewa forest development phase 1	
\$15m	2019 to 2022
<p>The project involves development of the Whakarewarewa Forest to a world class standard, with capacity to double the number of visitors. Includes a new visitor centre, improved biking amenities and improved access to forest. The project has been funded through an agreement with the PGF and RLC, with the parties sharing the cost.</p>	



### Proposed tourism projects

Rotorua tourism precinct	
\$16m	2020 to 2023
<p>This project is an extension of the Rotorua Lakefront development and involves three key components:</p> <ol style="list-style-type: none"> <li><b>Construction of high-quality jetties (\$2.0m)</b> New high-quality jetties to support lakefront development.</li> <li><b>Lakefront commercial buildings (\$13.6m)</b> Commercial space close to the lakefront for a range of uses including food and beverage, as well as tourism operations.</li> <li><b>Development of Ōhinemutu Village (\$1.6m)</b> Improvements to link the lakefront development and village to create a cultural destination</li> </ol>	

Whakarewarewa forest development phase 2	
\$14m	2020 to 2022
<p>This project is an extension of the \$15m phase 1 Whakarewarewa Forest Development. The extension includes:</p> <ol style="list-style-type: none"> <li><b>Commercial buildings (\$4.5m)</b> Development of a building complex that includes bike hire, retail, café/restaurant and supporting office, and a large storage shed for the mountain bike shuttle operations.</li> <li><b>Trail construction and maintenance (\$9.4m)</b> Development of upgrades and new tracks to create further commercial product opportunities to encourage visitors to stay longer and visit more frequently.</li> </ol>	

### Potential project benefits

- Tourism is a key contributor to regional economic growth and employment
- Potential for private sector and iwi involvement
- The sector is facing unique challenges with COVID-19
- Potential efficiencies through scale, compared to traditional procurement

# Structuring tools

*Establishment of a tourism entity to coordinate the funding and financing of projects, connect local and central government partners, centralise precinct masterplanning and provide project management expertise. The entity will utilise a range of tailored funding solutions to catalyse private investment and development.*



## Delivery structure

### Council delivery

<b>New entity</b>
<b>Partnership</b>
Joint procurement
Traditional delivery

### Crown delivery

Stakeholder
Partnership
Shareholding
Crown delivery

### Private delivery

<b>Service provider</b>
<b>Partnership</b>
<b>New SPV entity</b>
Full privatisation

### Iwi involvement

Project sponsor
<b>Partnership</b>
Shareholding
Iwi delivery



## Funding sources

### Council funding

<b>General rates</b>
<b>Targeted rates</b>
<b>Developer contributions</b>

### Crown funding

<b>Crown grant</b>
Seed capital
Specific Crown funds

### Value capture

Negotiated contribution
Land intervention
<b>Property development</b>
IFF levy

### Direct

<b>Private capital</b>
<b>Commercial opportunity</b>
Tax/duty
User pays



## Financing sources

### Public finance

DMO (Crown facility)

Crown loan

**LGFA**

**Crown equity**

### Private finance

**Bank debt**

Bonds/private placement

Subordinated/convertible instruments

Private equity



## Capital delivery

### Commercial model

**Alliance contract**

Construct only

**Design and build**

Managing contractor

Enterprise model

Design, build, operate, maintain

Design, build, finance, operate, maintain

Turnkey



## Operations delivery

### Commercial model

**Self perform**

Operate only

Operate and maintain

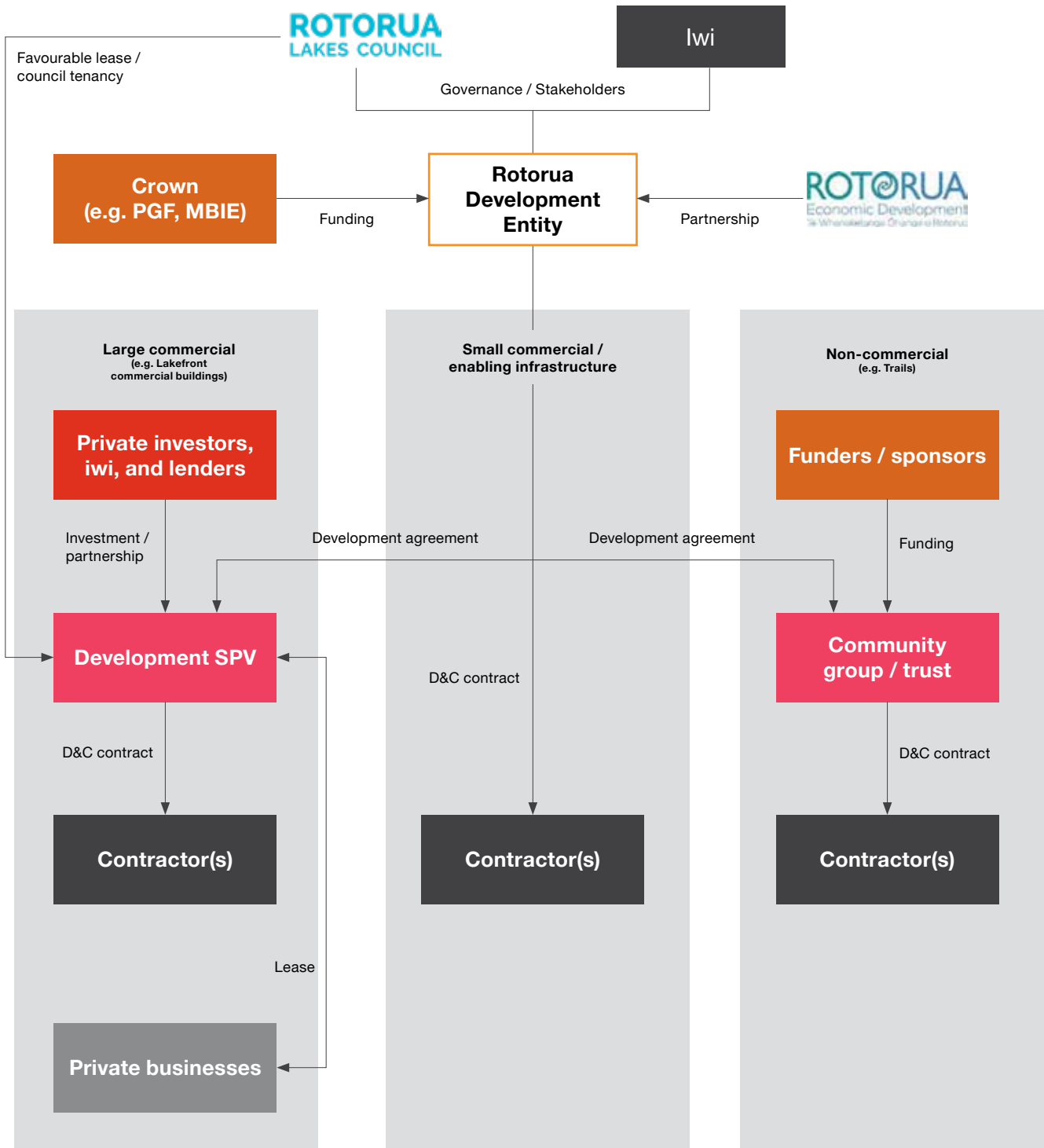
Design, build, operate, maintain

Design, build, finance, operate, maintain

Turnkey

# Proposed model

## Commercial structure diagram



## Explanation and evaluation



### Delivery, capital and operations structure

#### Rotorua Development Entity

- A new entity established to deliver urban development activities, including those that support tourism, across Rotorua.
- Responsible for master planning and project selection on a portfolio basis.
- Governance by Rotorua Lakes Council and local iwi.
- Partnership with existing Rotorua Economic Development Agency.
- The development entity would start small, with only a few individuals involved, growing as the number of projects expands.

#### Development SPVs

- Development SPVs utilised for large commercial projects, to incorporate private debt and equity at a project level and to assist with risk allocation.
- Could be an existing developer or a new entity established for individual projects.

#### Community Group / Trusts

- Existing or new community groups/trusts utilised to deliver and operate non-commercial developments, e.g. Rotorua Trails Trust and Ōhinemutu Development Group.

#### Contractor(s)

- Contracting models dependent on individual project scale, characteristics, and desired risk allocation (e.g. development agreements for larger commercial development, and fixed price contracts for enabling infrastructure).
- Development entity to focus on public realm and core infrastructure, with private developers responsible for procuring contractors themselves where this would provide a better outcome.
- Development agreements include bespoke mechanisms (e.g. favourable ground lease terms and council tenancy) to catalyse private interest from developers.
- O&M agreements dependent on project type.

### Features of the proposed structure include:

- ✓ May support a **single coordinated vision** for urban development projects across the district, particularly around the lakefront and tourism precinct.
- ✓ Opportunity to create a **centre of excellence** for urban development.
- ✓ Potential for core **iwi involvement** at an entity governance level.
- ✓ May allow better **utilisation of community and natural resources**.
- ✓ Potential to **leverage expertise** of development partners.



## Funding and Financing



- Council contributions for placemaking, infrastructure etc. provided through delivery entity.
- Council contributions may be financed through LGFA borrowing to smooth cashflows.
- Council to also provide non-monetary incentivisation through favourable lease terms, tenancy, and use of zoning.

### Crown

- Crown funding (e.g. PGF) used to support non-commercial projects that are an enabler of other commercial opportunities (e.g. lakefront development).
- Opportunity to provide funding at an entity or programme level, rather than on a project by project basis to increase flexibility and accelerate delivery.

### Private investors, iwi, and lenders

- Private capital (debt and equity) incorporated at a project level to align investment interests, risk allocations and appetite.
- Commercial operators, iwi investment groups, and other local capital providers incorporated to reduce burden on public funding and take on risks that they are best placed to manage (e.g. tenancy risk).
- Developers responsible for procuring their own finance for developments, noting that the funding mechanisms can be specifically structured to support this (e.g. favourable ground lease terms and council tenancy in the commercial development).
- Iwi land owners may contribute use of land under leasehold structures.

### Community funders / sponsors

- Community Trusts and charitable organisations to provide funding for non commercial projects – with funding coordinated by the Development Entity.

### Features of the funding and financing solution:

- ✓ Provision of Crown **funding on a portfolio basis** streamlines funding applications, allowing projects to be accelerated.
- ✓ Funding supports district wide master planning and **development** of projects to maximise wider benefits to the district.
- ✓ Allows for bespoke funding and financing of individual projects.
- ✓ Proposed funding arrangement leverages **a range of funding sources** to reduce the burden on councils and incentivise private capital.



## Case study

### Wynyard Quarter

The Wynyard Quarter project involves the ongoing regeneration and development of the Wynyard Precinct on former industrial land on Auckland City's waterfront. The vision is for a mix of homes, shops and office development to enable the growth of a strong, diverse, inclusive and lively residential and business community. When completed, Wynyard Quarter is expected to be home to about 3,000 residents and 25,000 workers.

The project is led by Panuku Development Auckland (Panuku), the council-controlled organisation (CCO) tasked with delivering urban regeneration in Auckland, and the primary landowner in the area. Panuku is working with private sector partners to deliver the vision for Wynyard Quarter through commercial and residential development, and is itself creating high-quality public spaces.

Examples of partnerships that Panuku has formed include those with:

- Property developer **Willis Bond & Co** to build up to 500 new apartments/terrace houses in the central area of Wynyard Quarter.
- **Precinct Properties** has developed 48,000m<sup>2</sup> of commercial space in centre of Wynyard Quarter, including GridAKL (see below).
- **Auckland Tourism, Events and Economic Development (ATEED)** underwrite of GridAKL, an innovation hub to bring together innovative businesses, tertiaries and start-ups with a technology focus, delivered (owned) by Precinct Properties.
- Property developer **Fu Wah International Group** delivering a new Park Hyatt hotel, with construction contracted to a JV of China Construction and Hawkins Group.
- **Auckland Theatre Company** delivered the ASB Waterfront Theatre, with contributions from Auckland Council, ASB Community Trust, Creative New Zealand, Lion Foundation, and private donors and benefactors.
- **Auckland Transport** to deliver roading and public transport improvements.

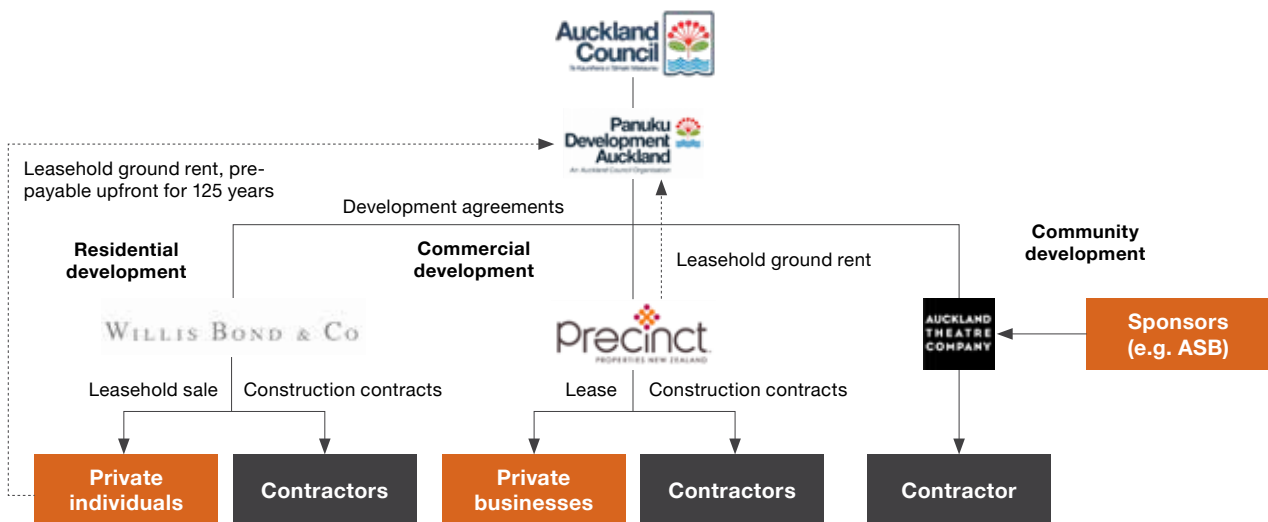
Developed property, including apartments, are held as leasehold interests, whereby the ground rent has been pre-paid by the developers for 125 years, removing uncertainty around future ground rental payments. Given the prime location, developers have been able to achieve developed property prices at close to freehold pricing.

Long leasehold structures with pre-paid ground rentals could provide a tool for Māori land owners to release capital while retaining long term ownership. However, outside metropolitan centres, these structures are commercially challenges for the market and may only be applicable for highly market attractive opportunities.

There are a number of factors that have contributed to the ongoing success of the project, which are outlined in the table below.

Factors	Wynyard Quarter	Rotorua development
Council owned land	✓	✗
Highly attractive land (e.g. prime waterfront real estate)	✓	-
Strong development economics (e.g. high market prices)	✓	✗
Social infrastructure (e.g. \$100m investment in infrastructure and public domain)	✓	-

## Simplified structure (example projects)



# Conclusion

Ratepayer affordability is a key challenge to delivering infrastructure in the Eastern Bay of Plenty, due to the low population and high levels of deprivation. Underutilisation of land has exacerbated affordability constraints, with many landowners not generating sufficient return from their land to fund the delivery of new infrastructure.

The Crown has provided significant investment in the sub-region (e.g. Provincial Growth Fund, COVID-19 Response and Recovery Fund) to stimulate growth and catalyse land use change to higher yielding activities. To realise these benefits, local authorities need to deliver supporting 'follow-on' infrastructure, which will require alternative funding, financing and delivery models.

This Study provides examples of how the collective capacity, expertise and resources of local and central government, iwi and other stakeholders may be leveraged in alternative ways to overcome the challenges faced by local authorities. Where new entities have been proposed as part of the hypothetical structures (e.g. the Kawerau Development Entity, the Rotorua Development Entity) that is because dedicated resource and specialised skillsets are likely to be required to deliver the solution. However, due to the size of the councils involved and irregular nature of the projects, it may be challenging to secure this resource. The similarity in challenges across the sub-region, means that there may be benefit in establishing these entities (or capabilities) collectively, with a regional or sub-regional scope. That way costs can be shared and learnings can be leveraged across the region and projects. For example, learnings from urban and property development in Rotorua may be able to be applied to similar challenges in Whakatāne.

When investigating new delivery models, local authorities should consider key project objectives, and how the project can best deliver environmental, social and sustainability outcomes. Many of the tools within the 'toolbox' have sufficient flexibility to be tailored to specifically address these considerations and, by working together, optimise the overall benefits of each project. Specific financial and commercial decisions should also be considered when investigating new delivery models, to ensure the model is 'fit-for-purpose' and implementable for the parties involved.

Partnership opportunities with public and private sector parties should be leveraged where possible. Leveraging these opportunities has yielded positive results internationally, particularly where there has been a joint commitment to delivering on project outcomes.

If you any questions, or would like to know more about the topics discussed in this Study, please get in touch:

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