



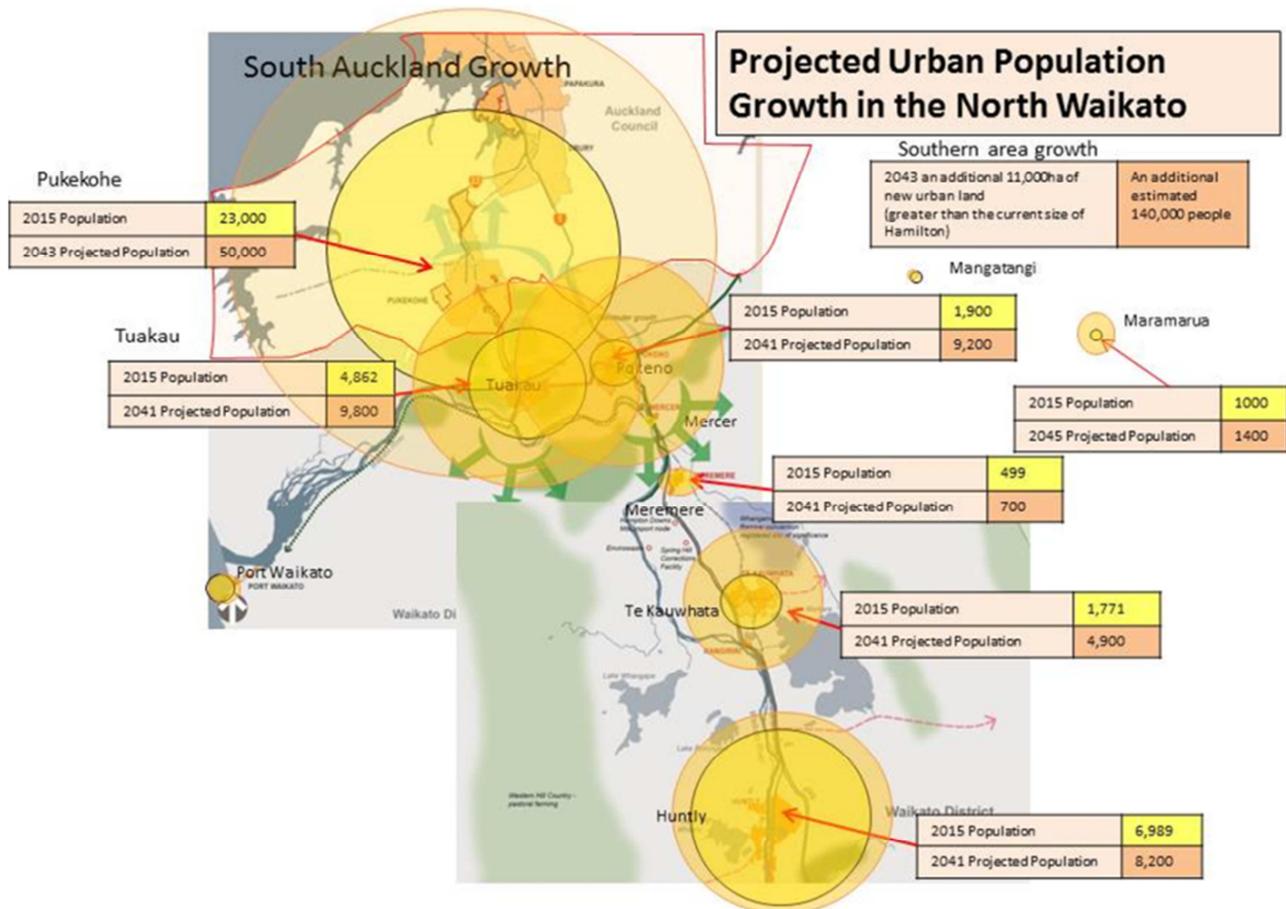
# Te Kauwhata Consolidated Detailed Business Case Housing Infrastructure Fund

April 2018

# EXECUTIVE SUMMARY

**This business case proposes accelerated infrastructure development in Te Kauwhata to enable the construction of more houses sooner.**

The rate of supply and challenges that New Zealand councils face in funding and providing infrastructure to meet growth challenges has resulted in the establishment of the \$1 billion Housing Infrastructure Fund (HIF) which is managed and maintained by the Ministry of Business Innovation and Employment (MBIE). This is interest free funding for up to ten years to build the infrastructure required to support development designed to ease the current housing crisis in major centres in New Zealand.



Te Kauwhata is part of an urban conurbation together with Pokeno, Tuakau, Pukekohe and Manukau. This north Waikato / south Auckland sub region is recognised and supported by regional stakeholders as a growth area in its own right and has emerged due to the functional social and economic linkages that exist between these towns, significantly supported by existing transport infrastructure.

However, the sub-region faces two major challenges to support future growth:

- Lack of housing availability and lack of affordable housing in the north Waikato and wider Auckland region; and
- Current local government funding and revenue risk limit the programme for infrastructure upgrades which can bring forward provisions and infrastructure for new housing.

The challenges above are compounded due to the following issues:

- The population of Te Kauwhata is projected to grow from 1,770 in 2016 to 10,898 by 2045. Te Kauwhata cannot provide for further development in support of proposed growth without addressing significant infrastructure constraints in **wastewater, water supply, and roading**.
- There is very limited capacity in Te Kauwhata's reticulated water treatment plant and its wastewater treatment plant to serve any residential development beyond that which is planned for through the Te Kauwhata Structure Plan. There is also an urgent need to maintain and upgrade the existing wastewater treatment plant to accommodate the first three years of growth while the new wastewater treatment solution is confirmed and constructed.
- Waikato District Council has increasing costs and environmental hurdles associated with growth in Te Kauwhata. Of utmost importance are the significant constraints of discharging treated wastewater in the neighbouring Lake Waikare and Whangamarino wetland.

**Lake Waikare and Whangamarino wetland** have multiple important values (cultural, ecological, recreational and economic) and interests to a variety of stakeholders. Local hapū describe them as the lungs and kidneys of the lower Waikato River. Whangamarino wetland supports significant populations of rare native animals and plants, and is recognised as a wetland of international significance under the RAMSAR Convention. Ramsar is the only international convention on an ecosystem type and formally recognises the value of wetland sites around the world. New Zealand has six Ramsar sites, including the Whangamarino wetland in Te Kauwhata .



# EXECUTIVE SUMMARY

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Lake Waikare also provides habitat for a range of native animals. A wide range of stakeholders have expressed their concerns about poor lake water quality and the impact of increasing sediment and nutrient loads to the lake and wetland.

Therefore, it is critical that in addressing the growth and infrastructure related issues in Te Kauwhata, due importance is given to the lake and wetland discharge.

In the indicative business case phase, Council has been successful in bidding for \$37 million from the \$1 billion Housing Infrastructure Fund. Council's bid was predicated on supporting growth in Te Kauwhata which will bring about 2790 residential units on stream (subject to private plan change outcomes) over ten years from initiation. HIF funding is to be provided to support Te Kauwhata's development through waste water solutions, water supply and storage, and roading investment support. This business case requests additional contingency to bring the requested HIF funding to \$38 million. Total HIF programme costs amount to estimated \$72 million. Additional funding will come from the 2018 Long Term Plan.

WDC has prepared a Detailed Business Case (DBC) for accessing funding from HIF. The DBC has followed the Treasury Better Business case Model. The project is governed by a Steering Group (including the representatives from Ministry of Business, Innovation and Employment (MBIE) and NZ Transport Agency (NZTA)), supported by a Project Team and Project Control group.

The project has been divided into two phases:

- Phase 1: Concept/Preliminary Design and costing to inform the DBC and match the DBC deadline (to Better Business Case standards) and Calculation of Developer Contributions
- Phase 2: Detail Design (tender ready documents), with a proviso to have early contractors' involvement

Through Phase 1, options for a wastewater solution, water supply and upgrading of roading infrastructure have been identified. The DBC utilises findings from Phase 1 to recommend funding for preferred options in providing solutions for wastewater, water supply and storage, and roading. Due to complex Lake Waikare discharge constraints, the wastewater solution options were also put through a 'consentability and affordability lens' as part of the rigorous Multi Criteria Analysis to finalise the preferred option.

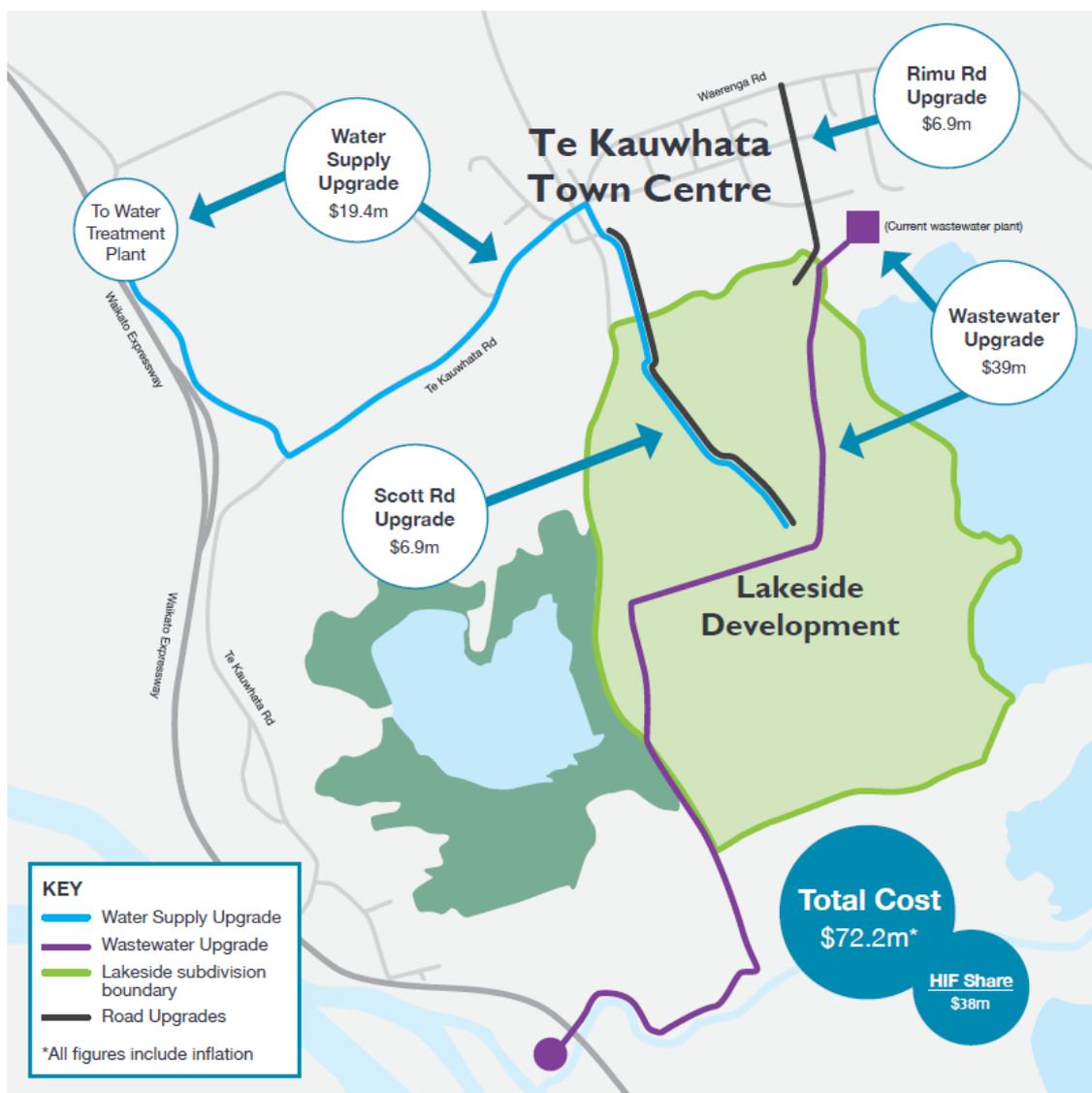
Two wastewater treatment technology options, Membrane Bioreactor (MBR) and conventional Biological Nutrient Removal (BNR) with clarifiers, were assessed and both considered anticipated increased future consent requirements for discharges – especially given the precedence set by the Watercare discharge consent outcomes (using MBR). MBR was preferred over BNR due to better effluent quality output, smaller footprint and potentially smaller ground improvement costs, and importantly the higher likelihood of obtaining consent for the preferred option. The MBR was taken forward to complete the concept design.

# EXECUTIVE SUMMARY

The proposed infrastructure projects comply with the HIF assessment criteria, and propose to deliver the following infrastructure improvements:

- **Wastewater:** Construction of an on-site wastewater treatment plant (MBR) in Te Kauwhata discharging via a 5.3km rising main to a suitable land contact point near SH1 and Waikato River. (cost: \$39,000,000)
- **Reticulated water:** Construct a new reticulated water treatment plant and pump station and new reservoirs. Upgrade or build main trunk reticulation (water conveyance) infrastructure (cost: \$19,400,000).
- **Transport:** Upgrades to Scott Road, Rimu Road, and the Waerenga Road-Rimu Road intersection and pedestrian / cyclist improvements in Te Kauwhata. This includes planning the design of Te Kauwhata Road to improve frontage development and walking / cycling connectivity (cost \$13,800,000). For reasons associated with the funding structures of the HIF, WDC have excluded the preferred transport option from the HIF funding application, and funded through mechanisms outside of HIF.

(Note: All costs include inflation)



# EXECUTIVE SUMMARY

## The requested HIF funding will provide the following benefits:

- Bring forward the construction of 1,190 houses by 3 to 5 years than scheduled in the WDC Long Term Plan. These 1,190 dwellings are already planned within the Te Kauwhata Structure Plan, however the infrastructure upgrades outlined in this DBC will allow for these dwellings to be delivered earlier.
- Facilitate an additional 1,600 households within the Lakeside Development proposed by Winton Partners. This development is not currently programmed and will be facilitated by infrastructure funding under the HIF. Lakeside Development is subject to a successful Plan Change to the Waikato District Plan. Decisions are due April 2018, with an appeal period to follow.
- Provide a proportion of housing that will be more affordable given the differential in market conditions when compared to the south Auckland / north Waikato conurbation growth cell.
- The HIF investment into a wastewater infrastructure solution in Te Kauwhata enables us to remove all of the existing wastewater, and reduce other pollutants that are going into Lake Waikare and the Whangamarino wetland.
- Over the long term, the proposed conversion from dairy farm to residential dwellings by the Lakeside Development will provide a reduction in nutrient loads to Lake Waikare and downstream-receiving environments, supporting the concept of “betterment” used to assess effects. This is because the main sources of nutrients (urine spotting and fertiliser) are removed by ceasing dairy farming. The resulting improved lake water quality is consistent with the National Policy Statement for Freshwater Management.
- The concept of “betterment” will also be achieved during the development stage. The proviso to this is that there is a reduction in sediment and nutrient leaching during development than there is from the current dairy farm. This will be achieved with appropriate Waikato Regional and District Council guidelines in place to mitigate erosion.
- The proposed preferred wastewater solution for the Lakeside Development (Membrane Bioreactor, MBR wastewater system) will provide a reduction in all contaminant loads and/or concentrations (nutrients, sediment, metal and organic toxicants, microbial pathogens) compared with the current Te Kauwhata wastewater treatment plant.

Houses Constructed without HIF	Houses Constructed with HIF
<p>The housing development outlined within the Te Kauwhata Structure Plan will continue at the original timeframes:</p> <ul style="list-style-type: none"> <li>• <b>283</b> constructed between <b>2020-2022</b></li> <li>• <b>169</b> constructed between <b>2021-2024</b></li> <li>• <b>738</b> constructed between <b>2022-2029</b></li> </ul>	<p>The housing development outlined within the Te Kauwhata Structure Plan will continue under an earlier timeframe and the development of an additional 1600 households under Lakeside Development (2,790 households total).</p> <ul style="list-style-type: none"> <li>• <b>283</b> constructed between <b>2017-2020</b></li> <li>• <b>169</b> constructed between <b>2018-2022</b></li> <li>• <b>738</b> constructed between <b>2019-2027</b></li> <li>• <b>1600</b> constructed between <b>2018-2027</b></li> </ul>

## Economic Case

The economic case indicates that the replacement and upgrade of the three infrastructure projects will realise both project-specific benefits and wider economic benefits which over a 40-year analysis period, assuming a 6% discount rate, exceed the net present costs of the project. This is true even when certain sensitivities are considered around variable discount rates, capital costs and occupancy uptake.

The net increase in expenditure as a result of the project over the 40 year period is \$1105 M, which generates an additional 314 jobs during the construction phase, and 123 jobs within retail and business in Te Kauwhata.

If the Lakeside Development progresses, but does not start construction until 2025 and takes significantly longer construction timeframes, the benefits reduce. But it should still be noted that the early provision of the households will generate significantly more regional income sooner allowing the region to develop, grow and expand as a prominent regional community with affordable housing.

The construction of an additional 1600 households, along with the increase in population within the region will lead to an increase in retail and commercial expenditure, which in turn improves both employment and income. The economic model therefore considers both project specific benefits and wider economic benefits.

The results of an Economic Cost Benefit Analysis (at 6% discount rate) suggest the project specific benefits alone are greater than the total infrastructure costs, giving a Net Present Value of \$28.8 M and Benefit Cost Ratio of 1.74.

**For more details on the Economic Case, please go to Appendix 1.**

## Financial Case

WDC are requesting a HIF loan totalling \$38 million over 10 years. This portion would align directly with the growth related costs of the infrastructure and would reduce the water and wastewater development contribution levies to \$8,473 per lot.

This Developer Contribution income would be used to repay the HIF loan as the projects and development progresses.

The total infrastructure programme for Te Kauwhata is \$72.2 million, with the HIF loan benefits passed on via interest-free development contribution levies. This ensures government investment is focused on the overall objective of bringing more houses to market sooner.

Project construction cost estimates have been completed using risk based 69 percentile (P69) expected costs in 2018 dollars and include contingencies for known or unknown risks that are likely to occur during implementation.

# EXECUTIVE SUMMARY

Construction spend is front loaded with water and wastewater infrastructure planned for completion by the end of year 3 (noting that the actual financial years may differ to that in the LTP dependant on wastewater discharge consent timing and private plan change outcomes).

With a mix of replacement and improvements to existing network infrastructure a moderate decrease in overall maintenance and operational costs is expected as such this should not be a major consideration in the acceptance of the business case.

The HIF interest-free loan is expected to reduce interest costs by approximately \$18 million over the ten year period.

Council will repay the HIF loan via development contributions and maintain infrastructure through rates generated from the housing provided by the Lakeside and other Te Kauwhata structure plan development and where required district wide rating growth.

The majority of the capital expenditure is programmed in the first three/four years of the LTP, with HIF loan drawdowns taken over the first four years.

HIF loans will be recognised at present value on the balance sheet on day one, with the present value discount recognised as non-operating income which will effectively be released across the life of the loan. This is the agreed approach from the HIF accounting working party.

**For more details on the Financial Case, please go to Appendix 2.**

HIF Te Kauwhata Funding		
Project:	Total Cost	Costs sought from HIF
Wastewater Treatment MBR plant in Te Kauwhata	\$39.1 million	\$21.5 million
Wastewater pump station and conveyance Te Kauwhata with discharge to land / river		
Water treatment plant upgrade & reservoirs	\$19.3 million	\$16.5 million
Local road infrastructure upgrades	\$13.8 million	No application
<b>Total cost</b>	<b>\$72.2 million</b>	<b>\$38 million</b>

Note: Costs include inflation

## Commercial Case

The financial case confirms that the proposed projects are commercially viable for council and that the associated debt funding arrangements are appropriate (within suitable council debt headroom), and that technical accounting issues can be managed.

The proposed consenting and procurement strategy proposed are appropriate to engage with stakeholders and the market respectively.

WDC has a robust implementation strategy to facilitate development, enabled by HIF funding. WDC has developed a detailed construction and phasing sequence that provides for early delivery of stage one development and then enable the longer term roll out of stages and infrastructure across Te Kauwhata.

Early delivery of stage one of the Lakeside Development will be possible with the advancement of interim works on the existing wastewater plant to provide the necessary capacity to service the initial 400 lots of stage one of Lakeside development.

WDC's preferred approach to procurement is to use the Waikato Local Authority Shared Services (LASS) Professional Services Panel (PSP) to select engineering design consultants to develop the detailed design and construction drawings for the roading, water and wastewater infrastructure.

The infrastructure necessary to enable to 2,790 new dwellings in Te Kauwhata will be designed and constructed over approximately 4 years from funding approval.

WDC's procurement processes and guidelines provide guidance on how to ensure that goods or services are delivered on time, at the agreed cost and to the specified requirements and that the service is being delivered as agreed, to the required level of performance and quality.

**For more details on the Commercial Case go to Appendix 3.**

## Management Case

The management case confirms that the programme is deliverable within the proposed timeframes, and to the required quality standards.

It established that WDC has the ability and frameworks in place to effectively manage governance, risk management, communications and stakeholder management, benefits realisation and quality assurance.

A four-tiered governance structure has been developed to support quick decision making and provide robust management and governance of the infrastructure projects in line with WDC's established project management quality system.

Key implementation risks have been identified, evaluated and recorded in accordance with WDC's risk management policy and framework. WDC has an appropriate and effective risk management

# EXECUTIVE SUMMARY

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process in place to manage the financial and commercial, project and technical risks associated with the programme.

Given the scale and complexity of the projects being procured, this will be managed using WDC's large scale procurement policy standards.

Stakeholders have been identified on programme and project-specific levels, noting the differing interest areas and level of engagement necessary to reach agreement on key decisions or alignment on key points.

Project	Est. Construction Start Date	Est. Construction Finish Date
Interim capacity improvements to Wastewater Treatment plant (for stage one 400 lots)	Q4 2018	Q2 2019
Wastewater - Treatment	Q2 2019	Q4 2021
Roading Works	Q3 2019	Q4 2020
Potable Water - Conveyance	Q2 2020	Q4 2021
Potable Water - Treatment	Q3 2020	Q4 2021
Wastewater - Conveyance	Q3 2020	Q1 2022

**For more details on the Management Case go to Appendix 4.**

## Why Te Kauwhata?

The **North Waikato Integrated Growth Management Programme Business Case (NWPBC)** has been undertaken in conjunction with the New Zealand Transport Agency (NZ Transport Agency), Waikato District Council (WDC), Waikato Regional Council, Auckland Transport, Auckland Council and Hamilton City Council to identify the long term (30-year) land use patterns and respective infrastructure requirements to meet the needs of the community. The NWPBC outlined the final settlement pattern for the Waikato, Hamilton and Waipa Districts, to meet the strategic planning requirements of the National Policy Statement on Urban Development (NPS-UDC), and informs this DBC.

- Te Kauwhata has been identified within the NWPBC as a prioritised township identified for growth and is anticipated to require at least another 2,889 dwellings within a 10-year timeframe.
- The NWPBC identifies and confirms Te Kauwhata's potential to accommodate a share of the anticipated regional residential growth, however;
- Te Kauwhata cannot provide for identified growth and further development without addressing the infrastructure constraints outlined in this case AND advancing the identified preferred projects (previously outside the Long Term Plan (LTP) period) for delivery in the next 10-year period.



In order to address these issues and help manage growth in the sub-region through integrated land use and infrastructure planning, FutureProof was created.

FutureProof is a 50-year growth management strategy and implementation partnership between WDC, Hamilton City Council, Waipa District Council and the

Waikato Regional Council. The NZ Transport Agency and Tangata Whenua are key stakeholders.

Significant growth pressures are being placed on north Waikato which the FutureProof Strategy seeks to address by encouraging development in targeted towns that can be efficiently serviced by infrastructure.

- Future Proof recognises the strong inter-relationship between north Waikato and Auckland and growth displacement from Auckland into North Waikato. FutureProof has chosen Te Kauwhata township as a key growth node to accommodate growth and overspill from Auckland and Hamilton. Te Kauwhata is confirmed as a recognised growth cell in the current FutureProof Strategy and in the updated strategy. Future Proof anticipates Te Kauwhata will grow as a result of growth in Pokeno and will offer lower median house prices into the market.
- Future Proof confirms Te Kauwhata as a logical employment catchment for hubs in the north Waikato / south Auckland sub-region such as Huntly, Glenbrook or Drury.

## BACKGROUND

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Te Kauwhata is also confirmed as an identified growth area in the **Waikato Regional Policy Statement (RPS)** which implements the Future Proof Strategy settlement pattern.

- Accordingly, Te Kauwhata is likely to be allocated more growth as part of the settlement pattern update.

The government has produced the NPS-UDC which includes the requirement for territorial authorities in high-growth areas to ensure that they have sufficient land to support residential and business use to meet anticipated future demand.

Waikato District has been identified as a high growth area, and is currently working towards addressing this requirement.

- The north Waikato / south Auckland urban conurbation area had a population of 31,533 people (10,873 households) in 2015. This is expected to increase to 73,900 people (27,370 households) by 2043. This creates demand for an additional 16,497 households.
- Investing in Te Kauwhata's infrastructure brings forward the existing residential growth enabled by the Te Kauwhata Structure Plan by 3 to 5 years, helping achieve the outcomes of the NPS-UDC.
- 2,790 new dwellings are expected to be built in Te Kauwhata in the next 10 years. It is anticipated that HIF related development dwellings enabled by this proposal represent 9.4% of WDC's next 10-year requirement and an estimated 47% of the additional 20% of dwellings required by the NPS-UDC.



## Challenges

The two challenges addressed in this DBC are:

### 1: Lack of housing availability and lack of affordable housing in the north Waikato and wider Auckland region

- It is a nationally acknowledged issue that in many of New Zealand's growing urban areas, including Auckland and Hamilton, the supply of housing has not kept up with demand.
- This has contributed to high and rapidly increasing home prices in recent years leading to housing affordability challenges.
- Waikato District is the fourth highest-growth district in the North Island, behind only the golden triangle of Auckland, Hamilton and Tauranga.
- The growth of Auckland and Hamilton, coupled with the high land and house prices in both of these cities and the comparatively lower median land and house prices within the Waikato District, are key 'push' and 'pull' factors fuelling growth in north Waikato.
- The North Waikato/ South Auckland sub-regional growth cell currently has a population of approximately 31,500 which is expected to grow to about 73,900 by 2023 and to nearly 104,500 people by 2046.

### 2: Current local government funding and revenue risk limit the programme for infrastructure upgrades which can bring forward provisions and infrastructure for new housing.

Te Kauwhata cannot provide for further development in support of proposed growth without addressing significant infrastructure constraints in **wastewater, water supply, and roading**.

- There is very limited capacity in Te Kauwhata's reticulated water treatment plant and its wastewater treatment plant to serve any residential development beyond that which is planned for through the Te Kauwhata Structure Plan.

Te Kauwhata has significant lake water discharge constraints:

- The current discharge consent (into Lake Waikare) expires in 2028, with a plan for the removal of the discharge from Lake Waikare within 15 years. The plan for removal is strongly supported by the local Te Kauwhata community.
- It is anticipated that there may be a requirement to install an alternative treated effluent disposal option.

While State Highway access in to Te Kauwhata includes a full grade separated interchange, some local roading upgrade investment is required:

- Although the local roads are currently fit for purpose the local transportation network requires improvements to deal with the forecasted additional traffic flows resulting from proposed developments.
- The new residential growth areas require upgrades to a number of roads, in particular to facilitate safe walking and cycling to the local school and township and future public transport infrastructure need to be taken into account.
- WDC is aware of the potential future provisioning for increased rail passenger services between Hamilton and Auckland and the opportunities for Te Kauwhata to redevelop a railway platform to service the township.

Waikato District Council has increasing costs and increasing environmental hurdles associated with growth:

- There is increased political, cultural, and environmental pressure on improved wastewater discharge approaches in the Waikato due to legislative changes relating to the environment and treaty settlements
- Based on previous wastewater discharge resource consents gained in the north Waikato south Auckland, a new wastewater discharge consent is likely to require extensive and long-term engagement with key stakeholders
- The cost to Council of obtaining and maintaining consents is an issue.

# BACKGROUND

## Alignment with HIF Objectives

In setting the investment objectives a review of the original HIF Investment criteria has been completed confirming the suitability of the project:

Criteria	Description Explanation	Summary & Reference
Geographic and high-growth urban area status	Applicant territorial authorities must be part of a high-growth urban area as described in the NPS-UDC.	Te Kauwhata is confirmed as an identified growth node within the South Auckland / North Waikato sub-regional growth cell.
New or upgraded infrastructure	Projects for which applicant territorial authorities seek HIF assistance must be for new or upgraded trunk infrastructure in the form of local and state highway roading (including public transport infrastructure), water supply, wastewater and stormwater infrastructure.	Infrastructure investments within the HIF DBC are consistent with the new or upgraded trunk infrastructure requirements.
Supports new dwellings	The infrastructure to which the proposals relate must support the building of new or additional dwellings in the short-medium term.	HIF will bring forward 1,190 houses within Te Kauwhata which will be provided 3-5 years earlier than currently scheduled in the WDC Long Term Plan. The HIF will deliver an additional 1,600 dwellings within the Lakeside Development
Capital expenditure	Funding assistance proposals can only relate to the capital cost of building or procuring infrastructure.	Capital request for \$ 38,000,00 is consistent with HIF requirements

## Consistent with SMART Investment Objectives

The HIF investment objectives for Te Kauwhata are:

**Objective 1:** To provide additional and earlier provision of households in the north Waikato urban growth nodes in a tangible manner that incorporates land use considerations

**Objective 2:** To provide the long term infrastructure solutions required to enable earlier and greater provision of households in the north Waikato urban growth nodes

**Objective 3:** To provide households in the north Waikato urban growth nodes which are affordable in comparison to the average house prices in Auckland and Hamilton

**Objective 4:** To support growing Te Kauwhata into a vibrant community which complements the existing township.

## Governance and Review Process

WDC has implemented its project management quality system to manage the development of the DBC and implementation of the project. Governance of the project and key decision-making is made by the Steering Group who meet monthly or as required.

The WDC Project Control Group (PCG) is responsible for project controls, outcome delivery, procurement and implementation of the Steering Group instructions. The PCG meets regularly for information and decision purposes. WDC, under its existing Local Authority Shared Services panel contracts, has procured consultants to provide design and peer review services.

## Options Considered – Waste Water:

IBC Option List		IBC Preferred Option		DBC Long list Options		DBC Option Short list	
Wastewater connection to Huntly and treatment plan upgrade		Wastewater connection to Huntly		Do minimum – upgrade existing on-site wastewater treatment plant	Not precluded	Do minimum – upgrade existing on-site wastewater treatment plant	Consentability issues
Wastewater connection to Pokeno		Wastewater connection to Huntly		Wastewater connection to Huntly and treatment plant upgrade	Not precluded	Wastewater connection to Huntly and treatment plant upgrade	Affordability issues
				Wastewater on-site treatment plant and discharge in lake		Wastewater on-site treatment plant and discharge in lake	Consentability Issues
				Wastewater connection to Pokeno	not strategically aligned	Wastewater on-site treatment plant and discharge in lake	Affordability issues
				Wastewater connection to Huntly with a super treatment plan in Ngaruawahia	Not affordable	Wastewater on-site treatment plant and discharge to land contact point near SH1 and Waikato River	
				Wastewater on-site treatment plant and discharge to land contact point near SH1 and Waikato River			
				Wastewater is discharged to land	Not feasible		
				MBR system used to treat wastewater			
				BNR system used to treat wastewater	Not preferred		



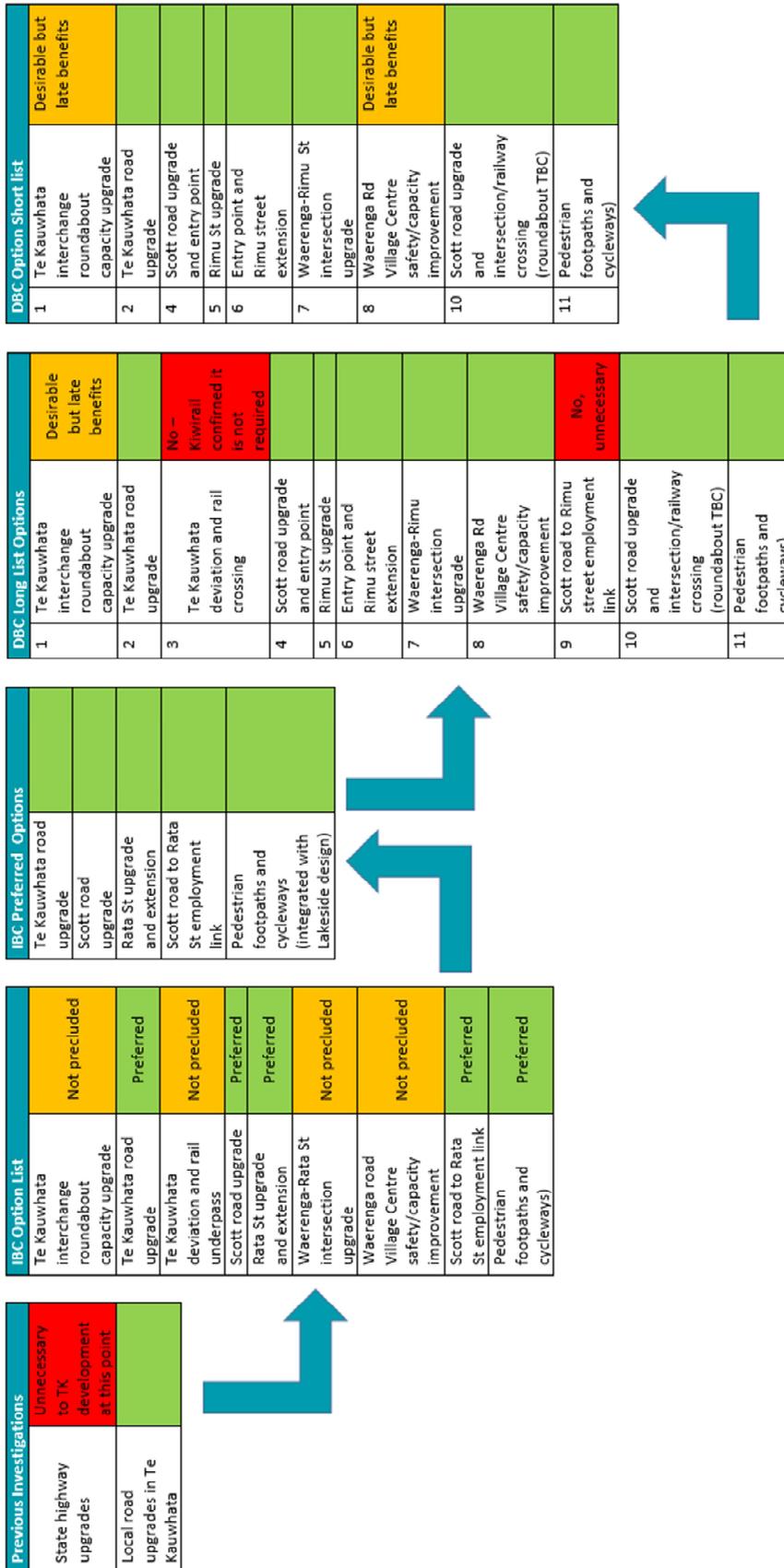
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## Options Considered – reticulated water

IBC Preferred Options		DBC Long List Options		DBC Option Design Short list	
Bring forward and expand the existing LTP plans to provide a new reticulated water treatment plant in Te Kauwhata	preferred	1 Continue on with the existing Long Term Plan reticulated water upgrade plans and timing.	doesn't meet project objectives	1 Build new pump station to convey flows between the treatment plant and the reservoirs	Preferred – most effective
		2 Bring forward and expand the existing LTP plans to provide a new reticulated water treatment plant in Te Kauwhata	Recommended solution	1a Build new pump station with larger pipe size	Not as cost effective as preferred option
		3 Do nothing	doesn't meet project objectives	2 Install break tank between treatment plant and the reservoirs	Higher upfront costs, less flexibility in design
				3 Drill the conveyance lower into the ground to avoid headloss	Not feasible
				1 Provide storage capacity in one reservoir	Not resilient
				2 Provide storage capacity in two reservoirs	recommended
				1 Install both storage reservoirs immediately	Will not meet WDC LOS requirements
				2 Stage the installation of storage reservoirs	Will ensure LOS water quality requirements can be met



## Options Considered – Transport:



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## Benefits

### Earlier supply of 2,790 households

- Bring forward the construction of 1,190 houses provided 3 to 5 years earlier than scheduled in the WDC LTP
- Facilitate an additional 1,600 households within the Lakeside Development

### Futureproofing infrastructure

- Potable water treatment, reticulation and storage upgrades
- Wastewater treatment technology and capacity upgrade
- The Membrane Bioreactor (MBR) will provide a reduction in all contaminant loads and/or compared with the current wastewater treatment plant
- Scott and Rimu road upgrades

### Affordable housing

- Provides a proportion of housing that will be more affordable given the differential in market conditions when compared to the south Auckland / north Waikato conurbation growth cell

### Investment benefits aligned with NWIBC

- Provides focused growth in key towns instead of dispersed growth and development through rural sub-division
- The new interchange at Te Kauwhata provides current and future residents safe and efficient access to employment opportunities available locally and in the wider sub-region, thus improving economic performance

### Environmental wellbeing

- Remove all of the existing wastewater, and reduce other pollutants that are going into Lake Waikare and the Whangamarino wetland.
- The proposed conversion from dairy farm to residential dwellings by Lakeside Development will provide a reduction in nutrient loads to Lake Waikare and downstream receiving environments, supporting the concept of “betterment” used to assess effects

### Community wellbeing

- Facilitate a long term desire to stop wastewater discharge in to Lake Waikare, which will result in increased activity, use, and amenity value of local natural resources for the community
- Provides social infrastructure such as parks and recreation, walking and cycling paths, thus providing positive outcomes for the community and programme partners

## Key Risks

Risks associated with the project meeting its objectives for the proposed costs are shown below:

Risk	Description	Risk Rating	Management Approach
Private Plan Change timings	There is a risk that the Private Plan Change timings are independent from project. This could have a negative impact on the implementation project and delay realisation of benefits. If delayed more houses will not come on line sooner	Inherent: Significant Residual: Moderate	MITIGATE:  Private Plan Change hearing (12-15 March 2018) is aligning with DBC dates. Commissioner's decision will follow in due course.  Key risks from the hearing will be understood when the DBC is concluded.
Differing wastewater views	Developer disagreement on wastewater solution	Inherent: Significant Residual: Low	MITIGATE ACTION: Managed via the Private Plan Change process, maintain close relationship with developer and developer agreement  MITIGATE ACTION: Transparency on costs associated with developer contribution have been tabled and value engineering step conducted to form greater alignment.
Cost estimating (P95) design requirement	Risk that requirement for P95 level engineering design requirement will push project delivery out due to greater amount of technical investigation required	Inherent: Significant Residual: Low	AVOIDED: Agreement reached with MBIE that P95 is not required. WDC opted to use P69. QS completed P50 and P 95 and interpolated P69 levels. Between <i>concept</i> and <i>developed</i> design conducted.
Consentability of waste water discharge to receiving environment	There is a risk that if there are delays or difficulty in getting approval for resource discharge consent for Te Kauwhata's treated waste water discharge, would delay implementation of HIF DBC projects.	Inherent: Significant Residual: High	MANAGE ACTION: Formal consenting strategy and extensive stakeholder engagement plan.  Early stages of development are able to be accommodated with the upgrade of existing services until such time as new infrastructure is approved and built.

# APPENDICES



# Appendix 1: Economic Case

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## Economic Summary

The degraded water and wastewater infrastructure which are currently servicing Te Kauwhata are struggling to meet the growing demand within Te Kauwhata. The construction and upgrade of these facilities along with the upgrade and construction of the access roads, will not only meet the existing capacity constraints in the town, but will also provide the required infrastructure for the additional Lakeside development.

Without the infrastructure the Lakeside development will either not proceed at all, or will proceed at a much slower rate and well into the future. The economic case models these scenarios. The results indicate that the replacement and upgrade of the three infrastructure projects will realise both project specific benefits and wider economic benefits which exceed the net present costs of the project.

The project specific benefits refer to real monetary benefits which can be realised by the council. These include;

- increase in property rates as a result of the increase in households;
- reduction in operational (including maintenance and replacement) costs;
- increase in developer contributions; and
- residual values.

**The net present value of these benefits over a 40 year analysis period, assuming a 6% discount rate, exceed the net present costs of the project. This is true even when certain sensitives are considered around variable discount rates, capital costs and occupancy uptake.**

The project however has significant wider economic impacts. The provision of households sooner, increases demand, and therefore the need for a greater number of retail and commercial businesses in the region. This in turn generates greater demand and employment opportunities. The wider economic benefits refer to:

- Economic activity generated as a result of the construction and development of the infrastructure projects
- Economic activity generated as a result of the construction and development of the Lakeside households
- Economic activity generated as a result of increased household expenditure

**The net increase in expenditure as a result of the project over the 40 year period is \$1105 M, which generates an additional 314 jobs during the construction phase, and 123 jobs within retail and business in Te Kauwhata.**

The largest impact to the results are realised when redefining the base case scenario. If the Lakeside development progresses, but does not start construction until 2025 and takes significantly longer construction timeframes, the benefits reduce. This is particularly true for the wider economic impacts as the increase in expenditure will be eventually realised at a later stage in the base case scenario, meaning the net benefit of the project will reduce.

**However it should still be noted that the early provision of the households will generate significantly more regional income sooner allowing the region to develop, grow and expand as a prominent regional community with affordable housing.**

## Economic Cost benefit analysis

The economic case utilises a Cost Benefit Analysis (CBA) approach to capture measurable costs and benefits associated with the project and compares this to a base case scenario.

The cost benefit analysis (CBA) has been undertaken by applying the following key steps:

1. **Defining objectives, base and project case options** – Defining the objectives in addition to the base case and project case for comparison.
2. **Identification of benefits and costs** – All benefits and costs are identified and quantified where possible. These are the costs and benefits that may be expected due to the move from the base case to the project case.
3. **Discount future costs and benefits** – Appropriate measures of net economic worth are generated, including Net Present Value (NPV) and the Benefit-Cost Ratio (BCR) based on a 6% discount rate as defined in the EEM.
4. **Calculate decision criteria** – The selected measure/s of net economic worth are calculated and interpreted. This report considers both the net present value (NPV) and benefit cost ratio (BCR) measures.
5. **Sensitivity analysis** – Where appropriate, decision criteria are calculated with a range of input values to present the sensitivity of the output values to inputs. In particular capital costs, household development/uptake and alternative base case household development and uptake

**The construction of an additional 1600 households, along with the increase in population within the region will lead to an increase in retail and commercial expenditure, which in turn improves both employment and income. The economic model therefore considers both project specific benefits and wider economic benefits.**

## Project Costs

The project costs are defined as the sum of capital, and operational costs of the three infrastructure projects. Capital costs for both the water treatment plant and wastewater treatment plant are aligned to the proposed construction program across a three year construction period (2019-2021/22) and would be operational by 2022.

The NPV of these costs are outlined in the table below.

**Table 1: Capital costs**

Capital Costs (Present value, 6% discount rate, over 40 years (\$M))	Base Case	Project Case	Incremental
WWTP	\$3.49	\$31.12	\$27.63
WTP	\$8.36	\$15.48	\$7.12
<b>Total</b>	<b>\$11.85</b>	<b>\$53.04</b>	<b>\$34.75</b>

**Table 2: Operational costs**

<b>Operational Costs (Present value, 6% discount rate, over 40 years (\$M))</b>	<b>Base Case</b>	<b>Project Case</b>	<b>Incremental</b>
WWTP	\$14.53	\$13.95	-\$0.58
WTP	\$9.14	\$6.17	-\$2.97
<b>Total Costs</b>	<b>\$24.77</b>	<b>\$22.73</b>	<b>-\$3.55</b>

**Table 3: Total costs**

<b>Total Costs (Present value, 6% discount rate, over 40 years (\$M))</b>	<b>Base Case</b>	<b>Project Case</b>	<b>Incremental</b>
WWTP	\$18.02	\$45.07	\$27.04
WTP	\$17.50	\$21.65	\$4.15
<b>Total Costs</b>	<b>\$36.62</b>	<b>\$75.76</b>	<b>\$31.20</b>

### **Total project specific benefits**

The CBA has been assessed using various benefit streams. The first level analysis only considers project specific benefits and costs. The second level analysis considers all other wider economic benefits in terms of the injections into the economy from the construction activities and the increase in general expenditure within the region based on the overall increase in households. These benefits are outlined below.

<b>Total Benefits (Present value, 6% discount rate, over 40 years (\$M))</b>	<b>Base Case</b>	<b>Project Case</b>	<b>Incremental</b>
<i>Property rate recovery</i>	\$60.11	\$103.15	\$43.04
<i>Connection Rate (WWTP) recovery</i>	\$5.99	\$19.77	\$13.78
<i>Connection Rate (WTP) recovery</i>	\$4.11	\$12.17	\$8.06
<i>Connection Rate (roads) recovery</i>	\$0.00	\$2.12	\$2.12
<i>WWTP Residual Value</i>	\$0.00	\$1.39	\$1.39
<i>WTP Residual Value</i>	\$0.00	\$0.67	\$0.67
<b>Total</b>	<b>\$71.52</b>	<b>\$139.51</b>	<b>\$69.06</b>

### *Total wider economic benefits*

Total Wider Economic Benefits (Present value, 6% discount rate, over 40 years (\$M))	Base Case	Project Case	Incremental
Construction & development impacts (from construction of infrastructure projects)	\$11.03	\$49.38	\$38.34
Construction & development impacts (from household construction)	\$109.65	\$293.26	\$63.12
Household expenditure impacts	\$593.38	\$1,597.43	\$1,004.04
<b>Total</b>	<b>\$714.07</b>	<b>\$1,940.06</b>	<b>\$1,105.51</b>

### *CBA Results*

CBA Summary (Present value, 6% discount rate, over 40 years (\$M))	Base Case	Project Case	Net Present value
Total costs	\$35.52	\$66.72	<b>\$31.20</b>
Total project benefits	\$70.21	\$139.27	<b>\$69.06</b>
Total wider economic benefits	\$714.07	\$1,934.07	<b>\$1,099.52</b>

### *Benefits Cost Ratio Analysis*

CBA results (excl. WEB)	4%	6%	8%
NPV (\$M)	\$55.80	\$37.87	\$26.47
<b>BCR</b>	<b>2.71</b>	<b>2.21</b>	<b>1.88</b>
CBA results (Incl. WEB)	4%	6%	8%
NPV (\$M)	\$1,544.54	\$1,137.38	\$871.55
<b>BCR</b>	<b>48.23</b>	<b>37.46</b>	<b>30.13</b>

The results (at 6% discount rate) suggest the project specific benefits alone are greater than the total infrastructure costs, giving an NPV of \$37.9 M and BCR of 2.21.

The additional wider economic benefits illustrate the significance of those wider impacts to the regional economy. When we include these benefits the BCR increases to 37.46.

The additional expenditure and employment opportunities from \$100 M increase in total expenditure expected within the region throughout the construction timeframes will generate an additional 268 job opportunities for the region.

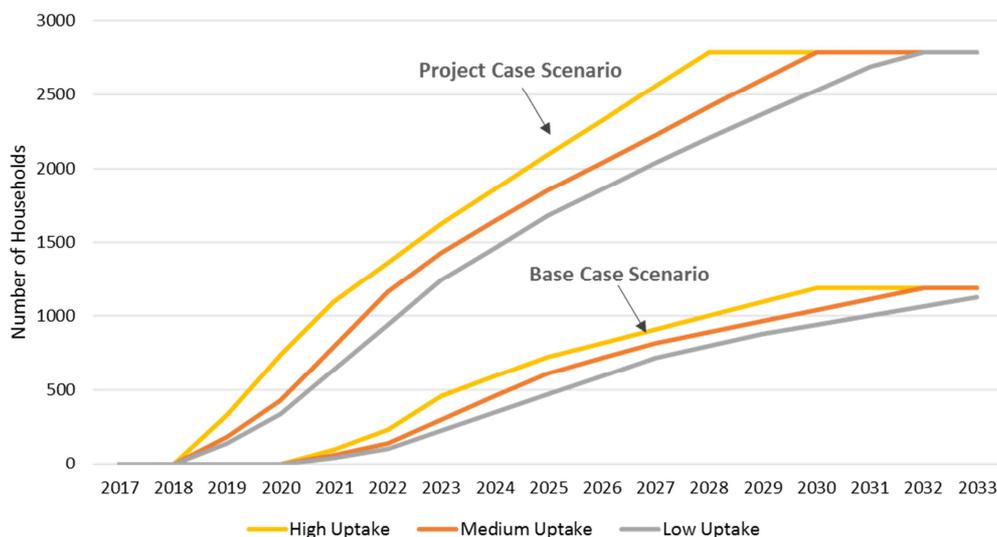
The model also predicts an increase in overall household expenditure for the region resulting from the increase in population which will bring in an additional \$1,004 M. in total (direct and indirect) expenditure for the region over the next 40 years, resulting in an additional 123 FTE opportunities.

## Development Uptake - Key Sensitivity

The economic model assumes that all households will be constructed as per the forecasted 10 year timeframe and 100% of households will be occupied once constructed. A number of other uptake scenarios have been tested assuming a slower uptake resulting in delayed construction of households.

Development/uptakes sensitivities (excl. WEB)	High uptake	Medium uptake	Low uptake
NPV (\$M)	\$37.87	\$34.00	\$30.42
BCR	2.21	2.09	1.98
Development/uptakes sensitivities (incl. WEB)	High uptake	Medium uptake	Low uptake
NPV (\$M)	\$1,137.38	\$1,070.40	\$1,001.37
BCR	37.46	35.31	33.10

The results indicate that regardless of the uptake scenario the significant wider economic benefits are still realised. The BCR ranges from 2.21 to 2.09 between high and low uptake assumptions. The slower the uptake of households the greater the reduction in project benefits. A four year delay to the end of construction however, does little to affect the BCR when we consider the wider economic impacts.



## Delayed uptake sensitivities

### Non-monetised benefits

Non-monetised benefits are those which do not have a monetary value but are still realised by the wider community. A number of environmental and social benefits arise from the construction of these infrastructure projects, including the positive impact on Lake Waikare and the Whangamarino wetland.

#### Environmental Benefits

- The removal of farmland (for the Lakeside development) removes harmful nitrogen and phosphorus runoffs currently entering both the lake and wetland. This will, in the long term, support improving the quality of the water and support the concept of “betterment” which is used to assess these effects.

Furthermore this is in line with both the Regional Policy Statement and National Policy Statement for Freshwater Management.

- Mitigation measures will also be put in place to minimise the impact of potential sediment and nutrient leaching during the development phase of the project. This is to ensure that the concept of “betterment” is met during this stage of the project.
- Improving the quality of the water of Lake Waikare and the Whangamarino wetland has a number of flow on effects to the environmental and to the community. Firstly the lake is recognised as a site of cultural and ecological significance, with the local hapū describing them as the lungs and kidneys of the lower Waikato.
- The wetland supports significant populations of rare native animals and plants and is recognised as a wetland of international significance under the RAMSAR Convention. RAMSAR is the only international convention on an ecosystem type and formally recognises the value of wetland sites around the world. New Zealand has six RAMSAR sites, including the Whangamarino wetland in Te Kauwhata.

### ***Social Benefits***

- The improved quality of both the lake and wetland will provide for better amenity and improved environment for Te Kauwhata locals to live and work in. This will help encourage both more residents and more businesses to the area. Lake Waikare restoration efforts also provides the potential for it to be used for recreational purposes. Currently the poor water quality prevents recreational activity. The provision of a wider range of activities to the community will again attract a greater number of people to the area and could also provide potential tourism opportunities.
- The earlier provision of households including the Lakeside development also brings further local businesses to the town. This improves the vibrancy of the community and improves public perception of the town. This is both true during the construction stage of the households and the longer term effects of the increase in residents.

### ***Inputs & Assumptions for the Economic Base Case / Project Case Scenarios***

Base Case	Project Case
<p>The housing development outlined within the Te Kauwhata Structure Plan will continue at the original timeframes:</p> <ul style="list-style-type: none"> <li>• <b>283</b> households constructed between <b>2020-2022</b></li> <li>• <b>169</b> households constructed between <b>2021-2024</b></li> <li>• <b>738</b> households constructed between <b>2022-2029</b></li> </ul>	<p>The housing development outlined within the Te Kauwhata Structure Plan will continue under an earlier timeframe and the development of an additional 1600 households under the Lakeside development (2,790 households total).</p> <ul style="list-style-type: none"> <li>• <b>283</b> households constructed between <b>2017-2020</b></li> <li>• <b>169</b> households constructed between <b>2018-2022</b></li> <li>• <b>738</b> households constructed between <b>2019-2027</b></li> <li>• <b>1600</b> households constructed between <b>2018-2027</b></li> </ul>
<p><b>Waste Water Treatment Plant</b> The existing treatment plant will undergo significant maintenance within the first year, due to the degraded state of the facility and not being able to meet consenting requirements. By 2020 additional MBR or Aquamats will be required to meet consents. In 2028, in order to renew the consents, an additional \$15M will be required for replacement and renewal of the plant (potentially providing additional capacity)</p>	<p><b>Waste Water Treatment Plant</b> A new local waste water treatment plant will be constructed with a suitable land contact discharge location near SH1 and Waikato River. It is assumed construction will take approximately 3 years and the plant will be operational in 2022. This will cater for an additional 1600 households and meet all consenting requirements.</p>

Base Case	Project Case
<p><b>Water Treatment Plant</b>  The current water treatment plant is at capacity meaning a capital expenditure will be spend in the second year to allow for expansion. Another expansion cost has been assumed for 2028, to ensure the current treatment plant can cater for the additional households</p>	<p><b>Water Treatment Plant</b>  A new water treatment plant, conveyance and reservoir will be constructed over a 3 year timeframe and it is assumed to be operational by 2022. It is assumed that the new water treatment plant be able to cater for the next 40 years of growth, including the structure plan area and additional 1600 Lakeside households.</p>

## Infrastructure spend per dwelling

$$\begin{aligned}
& \frac{\text{Total cost of the new infrastructure } (\$38,000,000)}{\text{Total number of new dwellings enabled by the HIF } (2,790)} \\
& = \$13,620 \text{ per dwelling}
\end{aligned}$$

## Appendix 2: Financial Case

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WDC are requesting a HIF loan totalling \$38 million over 10 years. This portion would align directly with the growth related costs of the infrastructure and would reduce the development contribution levy to \$8,473 per lot. This DC income would be used to repay the HIF loan as the projects and development progresses. The proposal is focused around bringing more houses to market sooner and will remain consistent with the funding mechanisms of Council.

### *WDC funding policy*

WDC has detailed its funding philosophies in its Revenue and Financing Policy.

- Operating costs are met by operating income - with the exception of depreciation expense for roading.
- Growth related operating costs should be met by WDC's income base.
- Asset renewal costs are funded from Capital Replacement Funds / new borrowing.
- All growth capital costs are met from development or financial contributions.

Source: WDC Financial Strategy (page 17 of 2015-2025 LTP, and consistent with 2018-28 draft LTP)

### *Rating capacity pressure*

WDC notes that it is unlikely the rates affordability benchmarks could be achieved if WDC did proceed to fund trunk infrastructure for developments on its own account (hence the current funding policy).

- While WDC has sufficient capacity to forward fund the proposed works, WDC already has a very significant renewal programme to meet which requires large increases in targeted and general rates over the Long Term Plan period.

### *Forward funding risk / targeted rates*

Given growth investments, Waikato district has the highest level of operational costs and second highest associated rates for these services out of New Zealand's provincial councils.

- The three waters targeted rates are proposed to be approximately \$1,800 per connected property in the 2018/19 financial year which is constraining.

### *High Development Contributions is effecting growth in Housing*

The above issues, along with the high cost of development contributions, are identified as the major constraints to housing development in the Waikato.

## INFRASTRUCTURE COSTS (INCLUDING INFLATION):

HIF indicative business case			HIF detailed business case		
Project	Total Cost	Costs sought from HIF	Project	Total Cost	Costs sought from HIF
<b>Wastewater upgrades – A new wastewater trunk line and associated components to carry wastewater from Te Kauwhata to Huntly</b>	\$30 million	\$24.5 million	<b>Wastewater Treatment Plant</b> MBR plant in Te Kauwhata	\$39.1 million	\$21.5 million
<b>Wastewater upgrades - Huntly</b> Wastewater treatment plant upgrade			<b>Wastewater pump station and conveyance</b> Te Kauwhata with discharge to land / river		
<b>Reticulated water infrastructure upgrade</b>	\$12.3 million	\$7.3 million	<b>Water treatment plant upgrade &amp; reservoirs</b>	\$19.3 million	\$16.5 million
<b>Local road infrastructure upgrades</b>	\$34.3 million	\$4.6 million	<b>Local road infrastructure upgrades</b>	\$13.8 million	No application
<b>Total cost</b>	<b>\$76.6 million</b>	<b>\$36.4 million</b>	<b>Total cost</b>	<b>\$72.2 million</b>	<b>\$38 million</b>

## FUNDING:

	HIF indicative business case	HIF detailed business case
<b>Total Funding Requested:</b>	\$36.5 million	\$38 million
<b>Estimated drawdown of funding</b>	2018: \$28.6 million 2019: \$2.4 million 2022: \$5.5 million	2019: \$7.4 million 2020: \$14.5 million 2021: \$16.1 million
<b>Estimated repayment period</b>	WDC does not expect to repay in instalments. Entire debt would be repaid in 2029.	WDC will make repayments equal to development contributions received from 2022 (year 4) onwards with balance paid in 2029.
<b>No. of dwellings to be constructed</b>	2,690 Total 2,238 Excluding consented/lodged	2,790 Total (100 additional) 2,338 Excluding consented/lodged
<b>HIF per dwelling constructed</b>	\$13,569	\$13,620

As set out in the Strategic Case, the transport component of the project has been excluded from the HIF application to maximise the potential funding available for the reticulated water and wastewater infrastructure required, which has resulted in amendments to the DBC. The financial case still includes the transport component but focuses on the wastewater and reticulated water elements of the project to set out how the HIF loan will be treated and managed.

The preferred option involves an HIF application to cover \$38 million of capital works; \$21.5 million to provide a wastewater network and \$16.5 million of water network expansion. Inflation adjusted costs include contract management and contingency estimates. The total infrastructure programme for Te Kauwhata is \$72.2 million,

with the HIF loan benefits passed on via interest-free development contribution levies. **This ensures government investment is focused on the overall objective of bringing more houses to market sooner.**

- Council's final 2018-28 Long Term Plan (LTP) will assume a HIF loan of \$38 million is provided.
- The Lakeside private plan change, subject to commissioner decisions by June 2018 and any appeals, is assumed to be operative during the 2018/19 year.

**The “without HIF loan” alternative for financial comparison purposes retains the assumption of an operative private plan change, albeit without assistance of interest-free debt. It is envisaged that the 1600 lot Lakeside development would be delivered outside the ten year period, and that development within the existing structure plan area would no longer be accelerated.**

- Capital programmes have not been rephased for the “without HIF loan” option. Condition assessment, consent compliance and Lakeside connectivity will still need to be addressed in a timely manner.
- The lag in development timing of this option, coupled with interest costs, would have a significant impact on the development contribution levies.
- While Council debt would remain manageable, due to a strong funding philosophy of growth pays for growth, **the level of development contribution levies would discourage subdivision** and building activity in Te Kauwhata.

## **Project delivery costs**

**Project construction cost estimates have been completed using risk based 69 percentile (P69) expected costs in 2018 dollars and include contingencies for known or unknown risks that are likely to occur during implementation.**

- Upgrades, extension work and intersection improvements to Scott Road and Rimu Street have been costed for information but will not require HIF loan funding. To keep within the realms of the original HIF application amount only water and wastewater funding will be sought. Graphs relating to the costs to bring Lakeside growth on line include roading; however, all graphs and tables relating to funding exclude any roading HIF.
- Water and wastewater projects will service existing and new dwellings at a total cost of \$58.4 million. \$38 million would be supported by the HIF loan with the remaining \$20.4 million repaid by existing residents over the capacity life of the infrastructure (25 year timeframe).
- The share of costs for existing property and related rating impacts has been allowed for in the draft 2018-28 LTP.

**The preferred wastewater solution differs to that presented through the indicative business case.**

- It is accepted that continuing with the current Te Kauwhata wastewater treatment plant discharge is not sustainable in the long term.
- Affordability has determined that the lowest cost option (together with the best environmental outcome) is the most appropriate.

**Costs will be split between growth (developers) and existing residents in acknowledgment of a fair apportionment of current consent compliance issues, new discharge consent requirements as well as capacity for growth.**

- The split of costs is 55% (developer) and 45% (existing Ratepayers) respectively, with the growth portion directly funded by HIF, and the existing property elements funded by a mix of Council replacement funds (for renewal portion) and interest bearing loans.

**Design work has identified that the existing water treatment plant and reservoir will not have capacity to deal with the level of growth anticipated.**

- Treatment plant and conveyance costs are deemed to be 88% related to new demand (HIF loan funded) and 12% related to addressing backlog issues for existing properties (replacement funds). The current reservoir needs an extension of capacity to meet existing levels of service, and therefore the split of works for the new reservoirs has a higher proportion funded by existing properties, 26% (interest bearing loans), with the remainder relating directly to growth, 74%.

**Council owns the majority of the land required for the preferred projects (sunk cost).**

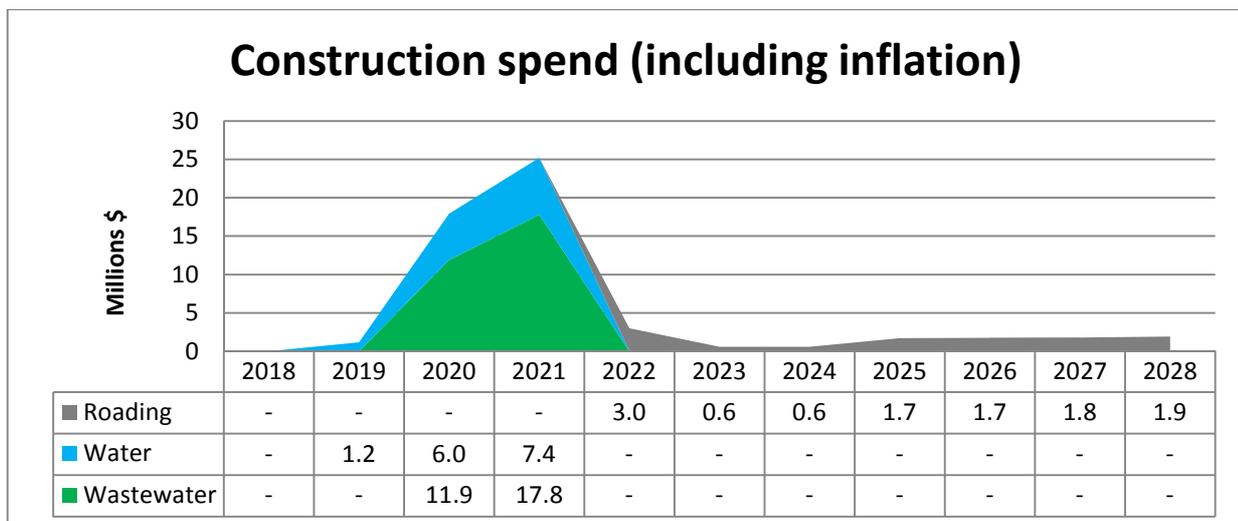
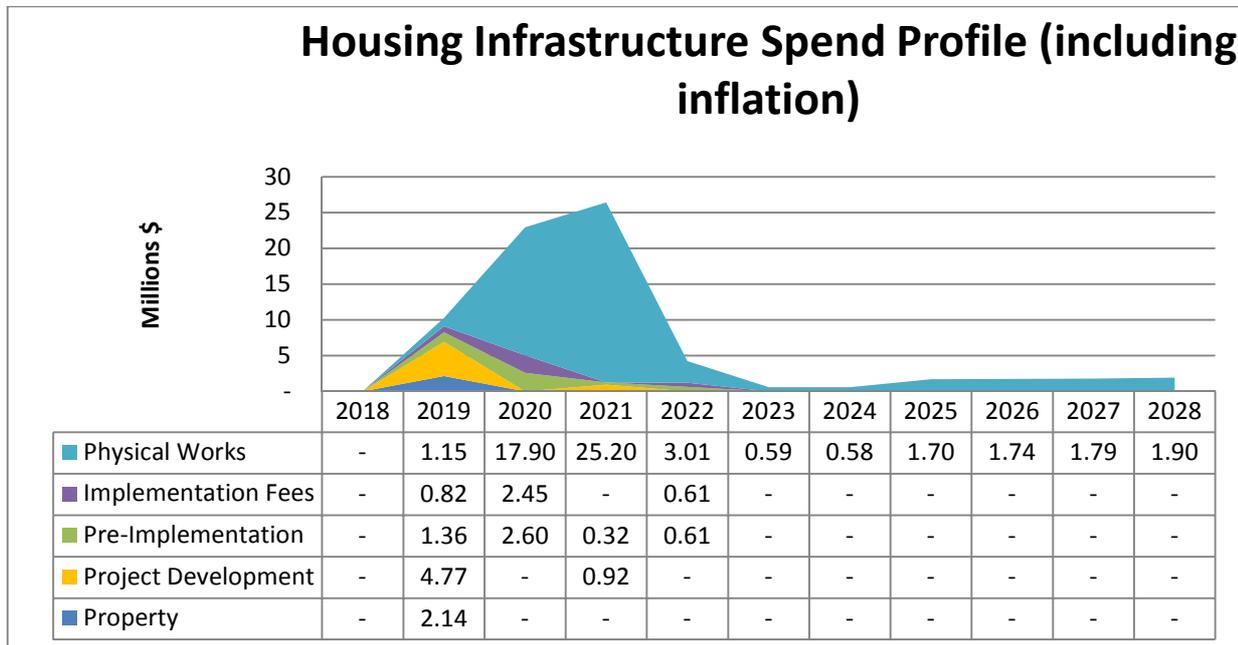
- \$2.2 million has been allowed for property costs to support conveyancing and directional drilling elements for wastewater and water. The following table outlines infrastructure costs and funding before and after inflation.

<b>INFRASTRUCTURE COSTS SUMMARY \$ (millions)</b>	Te Kauwhata Wastewater Treatment Plant	Pump Station	Conveyance/directional drilling	Water Treatment Plant	Reservoir	Conveyance/directional drilling	Rimu Street	Scott Road	Total cost post inflation	Total cost uninflated 2018 \$
Wastewater infrastructure	28.7	3.5	6.7	-	-	-	-	-	38.9	37.6
Wastewater property	-	-	0.2	-	-	-	-	-	0.2	0.2
Water Infrastructure	-	-	-	9.9	3.3	4.1	-	-	17.3	16.9
Water property	-	-	-	2.0	-	-	-	-	2.0	1.9
Roading Infrastructure	-	-	-	-	-	-	6.9	6.9	13.8	12.2
Roading property	-	-	-	-	-	-	-	-	-	-
<b>Total cost including inflation</b>	28.7	3.5	6.9	11.9	3.3	4.1	6.9	6.9	<b>72.2</b>	-
<b>Total cost uninflated 2018 \$</b>	27.7	3.4	6.6	11.5	3.2	4.0	5.8	6.3	-	<b>68.7</b>

<b>FUNDING SUMMARY</b>										
HIF wastewater funding	15.8	1.9	3.8	-	-	-	-	-	21.5	20.8
HIF water funding				10.5	2.4	3.6			16.5	16.1
Ratepayer/Council reserve funding	12.9	1.6	3.1	1.4	0.9	0.5			20.4	19.6
Direct developer funding							6.9	6.9	13.8	12.2
<b>Total funding including inflation</b>	28.7	3.5	6.9	11.9	3.3	4.1	6.9	6.9	<b>72.2</b>	
<b>Total cost uninflated 2018 \$</b>	27.7	3.4	6.6	11.5	3.2	4.0	5.8	6.3		<b>68.7</b>

Construction spend is front loaded with water and wastewater infrastructure planned for completion by the end of year 3 (noting that the actual financial years may differ to that in the LTP dependant on wastewater discharge consent timing and private plan change outcomes).

- The roading works are not part of the HIF application and are 100% developer led so timing will dependant on staging of the development.



## Ongoing maintenance and operation costs

With a mix of replacement and improvements to existing network infrastructure a moderate decrease in overall maintenance and operational costs is expected as such this should not be a major consideration in the acceptance of the business case.

## Funding, Financing and Debt

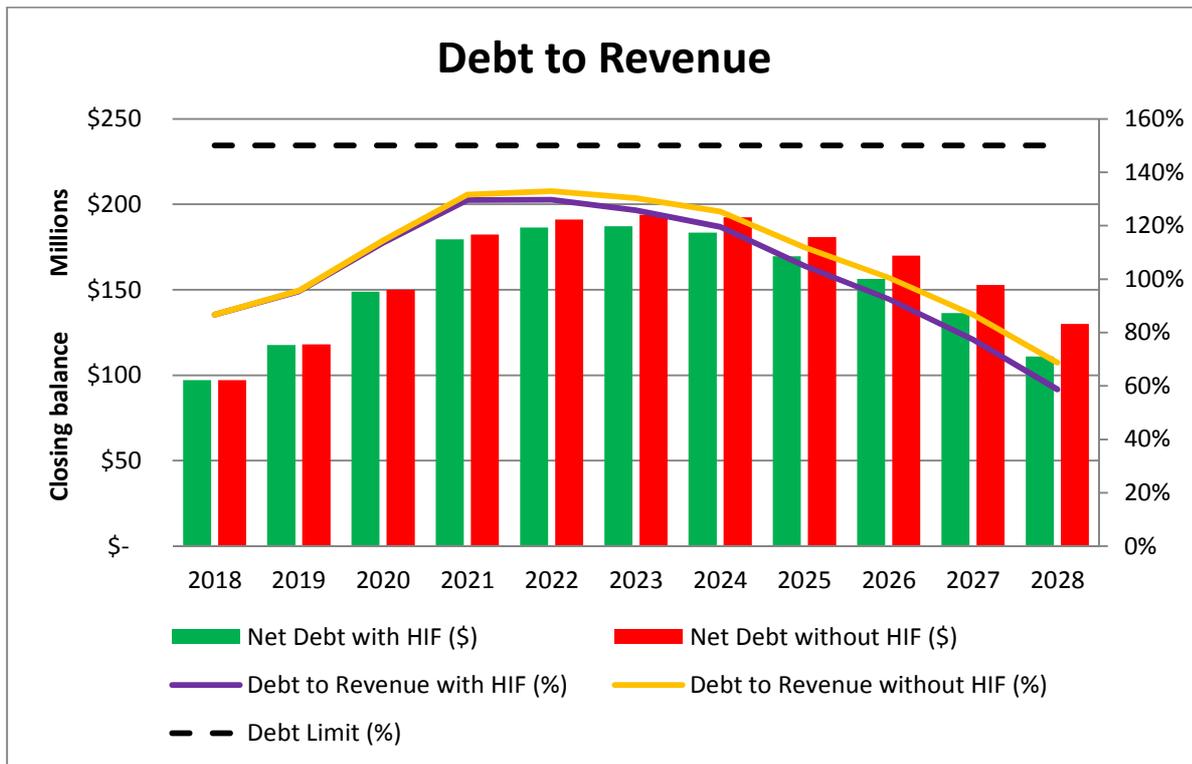
The objective of bringing more houses to market sooner is heavily influenced by the level of development contribution levies. Without the HIF loan development contributions would be a deterrent to subdivision and building activity in Te Kauwhata.

- In evaluating of of development contributions, Council has made the assumption that the new growth and accelerated growth would occur before the end of 2029. This assumption has a higher level of associated risk and has been addressed in the risks register, uncertainty log, and within financial and economic sensitivity analysis. In scenarios tested the CBA remains positive (>1.0) (See Economic summary).
- Condensing the additional growth and providing the new capital works free of interest lowers the development contribution levies for HIF related wastewater and water to approximately \$21,337 per lot/dwelling saving of \$8,473 in 2019 dollars (see table below). Development contribution levies will be used to repay the HIF loan in entirety by the end of 2029.

DC without HIF GST inclusive (for wastewater and water only)	DC with HIF GST inclusive (for wastewater and water only)	Benefit that HIF provided per lot to developers (more house to market sooner)
\$29,810	\$21,337	\$8,473

The HIF interest-free loan is expected to reduce interest costs by approximately \$18 million over the ten year period. Savings can be shared with developers through reduced levies to ensure a commercial incentive. This ensures government investment is focused on the overall objective of bringing more houses to market sooner.

- The financial modelling assumes that operating costs are met by operating revenues. Under both the with and without HIF options, Council remains within specified financial strategy and LGFA debt limits of 150% and 175% respectively.
- The financial case assumes that no further debt would be required for these projects beyond year 10. If there is a balance remaining after year 10, it would be re-financed from the Local Government Funding Agency or bank facilities.
- Council's financial forecasts show a gross debt position of \$130 million by 2028 without the HIF loan, an increase of \$12 million from the forecast opening position in 2019. The addition of the HIF loan decreases the gross debt at 2028 by approximately 15% to \$114 million. Maximum net debt planned over the 10 year period with the HIF loan in place is \$187 million in 2023.



**WDC’s local communities are stretched financially with some of the highest targeted rates in New Zealand. If Council were to independently fund projects with more interest bearing debt then there would be a high risk that existing residents would have to pick up the costs should development does not occur.**

- Having sufficient debt capacity is a key risk management principle within Council’s financial strategy to allow for unforeseen events. The following table shows that Council is forecasting to retain capacity within its own stipulated limits throughout the 10 year period.

With HIF loan (\$ millions)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Debt capacity (Council limit of 150%)	206	263	217	225	233	246	258	269	280	300
Closing debt	118	149	180	187	187	184	170	156	136	111
Debt surplus	88	114	38	39	46	63	88	113	144	189
Revenue surplus	62	66	69	72	74	77	81	84	88	95

Without HIF loan (\$ millions)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Debt capacity (Council limit of 150%)	206	263	217	225	233	246	258	269	280	300
Closing debt	118	150	182	191	194	192	181	170	153	130
Debt surplus	88	113	35	34	39	54	77	99	128	170
Revenue surplus	62	66	69	72	74	77	81	84	88	95

## Loan Repayment

Council will repay the HIF loan via development contributions and maintain infrastructure through rates generated from the housing provided by the Lakeside and other Te Kauwhata structure plan development and where required district wide rating growth.

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
General Rates (includes Roothing/Parks)	6.24%	4.80%	3.73%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
<b>3 Waters Targeted Rate increases</b>										
Water	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Wastewater	13.90%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Stormwater	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

## Take up

A conservative general rate projection for Lakeside has been included in Council's draft LTP from year 2 onwards.

- Rating growth is based on an extra 100 dwellings per annum (rather than using the 200 lots expected) to allow for a mix of capital values, relative staging of building and any infrastructure delays.
- In all scenarios tested the Cost Benefit Analysis remains positive (>1.0) (See Economic summary).

## Funding and Repayment

The majority of the capital expenditure is programmed in the first three-four years of the LTP, with HIF loan drawdowns taken over the first four years as illustrated in the following graph:

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
<b>Capital Expenditure</b>											<b>Total</b>
Roothing	0.0	0.0	1.2	4.0	0.5	0.5	1.5	1.5	1.5	1.5	12.2
Wastewater	4.4	16.5	16.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.8
Water	5.9	5.9	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.8
<b>Inflation</b>	0.0	0.6	1.3	0.3	0.1	0.1	0.2	0.3	0.3	0.4	3.5
<b>Total (inflated)</b>	<b>10.2</b>	<b>23.0</b>	<b>26.4</b>	<b>4.2</b>	<b>0.6</b>	<b>0.6</b>	<b>1.7</b>	<b>1.7</b>	<b>1.8</b>	<b>1.9</b>	<b>72.2</b>

## Proposed HIF drawdown and repayments

Year*	HIF drawdown amount (millions)	HIF repayments (millions)	HIF loan Balance	
2019	\$7.40		\$7.40	*Actual financial year may differ based on timing of wastewater discharge consent and private plan change outcomes. Given the HIF loan is interest free the delay in timing is not a major financial risk provided works have gone out for design and tender subject to consent approval.
2020	\$14.50		\$21.90	
2021	\$16.10		\$38.00	
2022		\$2.0	\$36.00	
2023		\$2.0	\$34.00	
2024		\$2.0	\$32.00	
2025		\$2.0	\$30.00	
2026		\$2.0	\$28.00	
2027		\$2.0	\$26.00	
2028		\$2.0	\$24.00	
2029		\$24.0	\$0.00	
<b>Totals</b>	<b>\$40.00</b>	<b>\$38.00</b>	<b>\$0.00</b>	

### Repayments of the loan would come directly from HIF related development contribution levies.

- Repayments of the loan would come directly from HIF related development contribution levies. To ensure the loan remains interest-free in nature, Council will remit actual development contributions received in each year. Table 82 reflects a minimum repayment level of \$2 million in each year with the remainder being paid in 2029. This does not tie directly to business case financials, which are based on anticipated contributions income, but reflects a level of repayment that provides certainty for Treasury for administration purposes. Table 83 shows the amounts expected to be repaid based on assumed development timing.

### The works related to the \$38 million interest-free loan have been isolated in a separate contribution for water and wastewater. Lakeside and accelerated growth will receive the benefits of the reduction in development contribution levies.

- The following table shows the expected revenue to be generated each year for HIF related development contributions.

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
<b>Development contribution income</b>											<b>Total</b>
<b>Wastewater</b>	0.20	3.00	2.40	2.40	2.10	2.60	2.60	2.60	2.60	1.00	21.50
<b>Water</b>	0.10	2.20	1.90	1.90	1.60	2.00	2.00	2.00	2.00	0.80	16.50
<b>Total</b>	0.30	5.45	4.55	4.55	3.95	4.85	4.85	4.85	4.85	1.80	38.00

- It is proposed that development contribution levies collected during the year are paid to MBIE at the commencement of the following financial year, once the projects are materially complete. As levies will be charged based on P69 estimates, adjustments are anticipated at the end of each year to reflect actual project costs.

- The first repayment of \$10.3 million would be made in year 4 with final repayments of \$1.8 million made in year 11.
- Note the proposed HIF Drawdown and Repayments schedule reflects a minimum repayment level of \$2 million in each year with the remainder being paid in 2029. This does not tie directly to business case financials, which are based on anticipated contributions income, but reflects a level of repayment that provides certainty for Treasury for administration purposes.

### *Accounting treatment*

**HIF loans will be recognised at present value on the balance sheet on day one, with the present value discount recognised as non-operating income which will effectively be released across the life of the loan. This is the agreed approach from the HIF accounting working party.**

- Council’s financial modelling assumes repayment is made in full within the 10 year period to reduce the risk of Council having to pick up developer costs. Council is acting as an intermediary in this process and as such has an expectation that development contributions will be timed with the provision of infrastructure and uplift of consents.

## **Financial risk**

<b>Financial risk</b>	<b>Mitigations</b>
Cost escalation  Tender prices differ from budget	<ul style="list-style-type: none"> <li>• Detailed business case costings used as basis of financial modelling</li> <li>• Contingency allowance included</li> <li>• Key assumptions are transparent for all affected parties</li> </ul>
Development contribution income  Staging of development or total number of lots available differs from business case assumptions	<ul style="list-style-type: none"> <li>• Development agreements negotiated and in place ahead of plan change approval and/or commencement of works</li> <li>• Interest-free benefit set as a finite 10 year period, incentivising early development</li> <li>• Private plan change process to date indicates that 1600 lots is achievable albeit with larger lot sizes</li> </ul>
Private plan change/ Regional council consent dependencies  Appeals to the private plan change delay progress, significantly change the yield in the Lakeside catchment or ultimately stop the plan change from becoming operative  Regional council delays or declines wastewater discharge consent approval	<ul style="list-style-type: none"> <li>• Weighting given to HIF objectives</li> <li>• Weighting given to NPS objectives</li> <li>• Infrastructure project timings rephased</li> <li>• Timing of HIF drawdowns and repayments rephased</li> <li>• Infrastructure revisited for reduced yield or consent compliance reasons if required</li> <li>• Subject to Council approval, debt headroom used in absence of operative plan change to fund essential wastewater and water infrastructure projects</li> </ul>

## Financial case sensitivities

The actual financial year of construction may differ based on securing wastewater discharge consent and private plan change outcomes. Given the HIF loan is interest free, delays in timing will in general terms not create a major financial risk provided works have gone out for design and tender subject to consent approval and the programme of works is completed within the ten year timeframe.

- If delays relating to obtaining discharge consent are substantial the objective to bring houses to market within the ten year period could be compromised. To mitigate this particular timing risk Council will invest in remedial works on the current wastewater treatment plant to support the first 400 lots of the Lakeside development.
- Capital construction movements in excess of P69 values would need to be picked up by additional debt funding. The additional costs would be apportioned between growth and existing properties.

**Sensitivity testing shows that for every 10% increase in capital expenditure (assuming capital programme of \$72 million and that the HIF loan is capped at \$38 million):**

- a further \$3.8 million of development contribution income is required
- the HIF related development contribution levies would increase by approximately \$1,600 per lot/dwelling before interest is applied
- Ratepayer funded loans would increase by \$2 million assuming proportionate cost shares remain unchanged
- Rates increases in the first year relating to interest on increased loan funding of \$134,000 or a 0.23% general rate increase

**Council has been conservative in its estimated rating growth, and there is sufficient debt capacity to pick up moderate capital project cost increases if absolutely necessary, noting that this would impact the level of rating income required in future years.**

- History has shown that development is extremely sensitive to increases in development contributions but it is difficult to quantify the level at which development will slow or cease.
- Developers have indicated that any DC above the current 2017/18 levies of approx. \$25,000 per lot would be a deterrent for them to develop in Te Kauwhata.

**Keeping infrastructure costs (and the flow on effect to development contributions) to a reasonable level will determine the success of the HIF objectives of more houses to market sooner.**

## Appendix 3: Commercial Case

The financial case confirms that the proposed projects are commercially viable for council and that the associated debt funding arrangements are appropriate (within suitable council debt headroom), and that technical accounting issues can be managed.

- These include: payment and repayment handling; annual costs are accounted for; suitable funding mechanisms are available to council; and that there is certainty of government funding via the proposed load agreement.

### *WDC's allocation of the HIF fund*

Discipline	Approx. Funding allocation	% of \$1b HIF Fund	% of WDC Funding
Wastewater	\$21.5 M	2.15%	57%
Water	\$16.5 M	1.65%	43%
<b>Totals</b>	<b>\$38M</b>	<b>3.84%</b>	<b>100%</b>

Council confirms it is experienced in scale of the proposed development and with the procurement and delivery of the identified projects proposed, and has selected a traditional Design Build RFP approach for the identified infrastructure sub-projects outlined in the proposed contract packages outlined above.

- Overall, we note that the **WDC's allocation of the HIF fund is less material than other applications** (has relatively smaller and lower cost project spend) than many councils applications. \$38 M (or 3.8% of the overall HIF fund) has been allocated to the Waikato District Council HIF project.
- **Detailed risk based costing analysis** has been completed (and independently costed by WT Partners) for each project / sub-project, which can be fairly allocated to participants during the RFP process.
- Noting the traditional RFP approach outlined, Council wishes to be efficient in its decision making and project delivery. **Council have reserved the right to have direct developer engagement** on delivery of individual sub-projects under a design build contract suitable to council. If suitably negotiated, the developer could deliver individual infrastructure components or packages of work should a commercial agreement appropriately allocate and transfer risk to the developer while maintaining a focus on value for money and accelerated access for developments.

The proposed consenting and procurement strategy proposed are appropriate to engage with stakeholders and the market respectively.

- Given the proposed scale of investments, the **traditional procurement** process as outlined (based on value for money, risks management, and accelerated access for development) is appropriately based on a traditional RFP process, and has been designed to fairly allocate identified and costed technical risks.
- From a **consenting** point of view, there are two components to the project which require consent – the new dwellings themselves, and the infrastructure required to support the new dwellings.

### *Private Plan Change Process is well underway*

Winton Partners, the developers of the proposed 1,600 dwellings at Lakeside, have already made an application to change the Waikato District Plan to enable dwellings to be built in the Lakeside development area. A decision on the plan change (Proposed Private Change 20) is anticipated in April 2018.

- The remaining 1,190 of dwellings proposed to be delivered earlier with HIF support, are already enabled by the Te Kauwhata Structure Plan which has been incorporated into the Waikato District Plan.

### *Requirement for Supporting Infrastructure*

**Proposed Private Plan Change 20 and the existing Te Kauwhata Structure Plan do not cover the wastewater, reticulated water and transport requirements (the subject of this DBC).**

- **Consenting Risks** related to the preferred options (undertaken through the Proposed Private Plan Change 20 consultation processes) identified that the requirement for a new wastewater discharge consent is a key risk to the project and this risk has been appropriately elevated for management. Council has identified that:
  - **There is increased political, cultural, and environment pressure** on improved wastewater discharge approaches in the Waikato due to legislative changes relating to the environment and treaty settlements
  - **Iwi** will require strong input into any new discharge consents
  - **There is strong community feeling in Te Kauwhata about the existing wastewater treatment processes.** As a result the proposed new wastewater treatment plant is anticipated to be subject to a great deal of public interest.

**WDC has identified that the consent strategy process for the wastewater infrastructure will focus on early and collaborative engagement with Iwi and other stakeholders to produce a wastewater discharge solution acceptable to the key stakeholders.**

- WDC is investigating the use of a Wastewater Advisory Group (WAG) to facilitate engagement with the key wastewater stakeholders. The consenting requirements of the reticulated water and transport elements of the project will be addressed using the same consent strategy process, and approach to consultation, which will meet the RMA Part 2 Requirements and WDC's consultation and engagement requirements.

In terms of **delivery team capability and required skillsets**, a formal governance structure including overall HIF Programme Manager (supported by internal senior Project Managers) has been put in place to manage delivery - post procurement – and where senior responsible persons within council have been identified as project sponsors and / or owners of outcomes.

**Contractual and implementation timescales** while identified as accelerated in the first few years, are within Councils capability. In particular the key risk of take-up and investment hurdle points for developer pre-sales (of houses) will likely be required in order to manage implementation timing risk and trigger the exact dates of loan drawn down.

## Output based specification

**From a delivery point of view, the following detailed design services and physical works are required:**

- Maintenance and improvements to the existing **wastewater treatment plant** to service the existing and anticipated population in the first three years while the new wastewater treatment plant is built. A new membrane bioreactor (MBR) wastewater treatment plant in Te Kauwhata, including a new lift pump station, a works facility (a pre-treatment system for wastewater before it reaches the MBR plant), a dewatering and storage facility for the sludge extracted, overflow management facilities and a rising main to convey the treated water from the new Te Kauwhata plant to suitable land contact discharge location near State Highway One and the Waikato River.
- A new **reticulated water treatment plant** and pump station, new reservoirs and upgrade or build main trunk reticulation (water conveyance) infrastructure.
- **Upgrades to Scott Road and Rimu Street** in Te Kauwhata, including walking and cycling capability.

**Implementation of the above projects is anticipated to achieve acceleration of short-term and medium-term supply of new housing in Te Kauwhata as follows:**

- Provision of **1,190 dwellings** planned in the Te Kauwhata Structure Plan 3-5 years earlier than otherwise possible; and
- Provision of **1,600 dwellings** in Lakeside development, not currently provided for, or able to be accommodated by the existing wastewater, reticulated water and transport infrastructure in Te Kauwhata.

## Implementation strategy and programme

**WDC has a robust implementation strategy to facilitate development, enabled by HIF funding. WDC has developed a detailed construction and phasing sequence that provides for early delivery of stage one development and then enable the longer term role out of stages and infrastructure across Te Kauwhata.**

WDC has partnered with Lakeside. Development principles have been signed off and a formal developer agreement is being completed to enable the early development of up to 400 houses in stage one which is due to start from summer 2020 and deliver up to a total of 1600 houses over a ten year period (subject to private plan change decisions on lot sizing). The HIF funding is applied to only part of the investment required to develop Te Kauwhata.

As outlined previously, Council has reserved the right to have the roading upgrade physical works and the new wastewater treatment plant constructed by the developer if that option proves to be more efficient, derives better value for money and allows the Lakeside site to be developed faster than the traditional procurement.

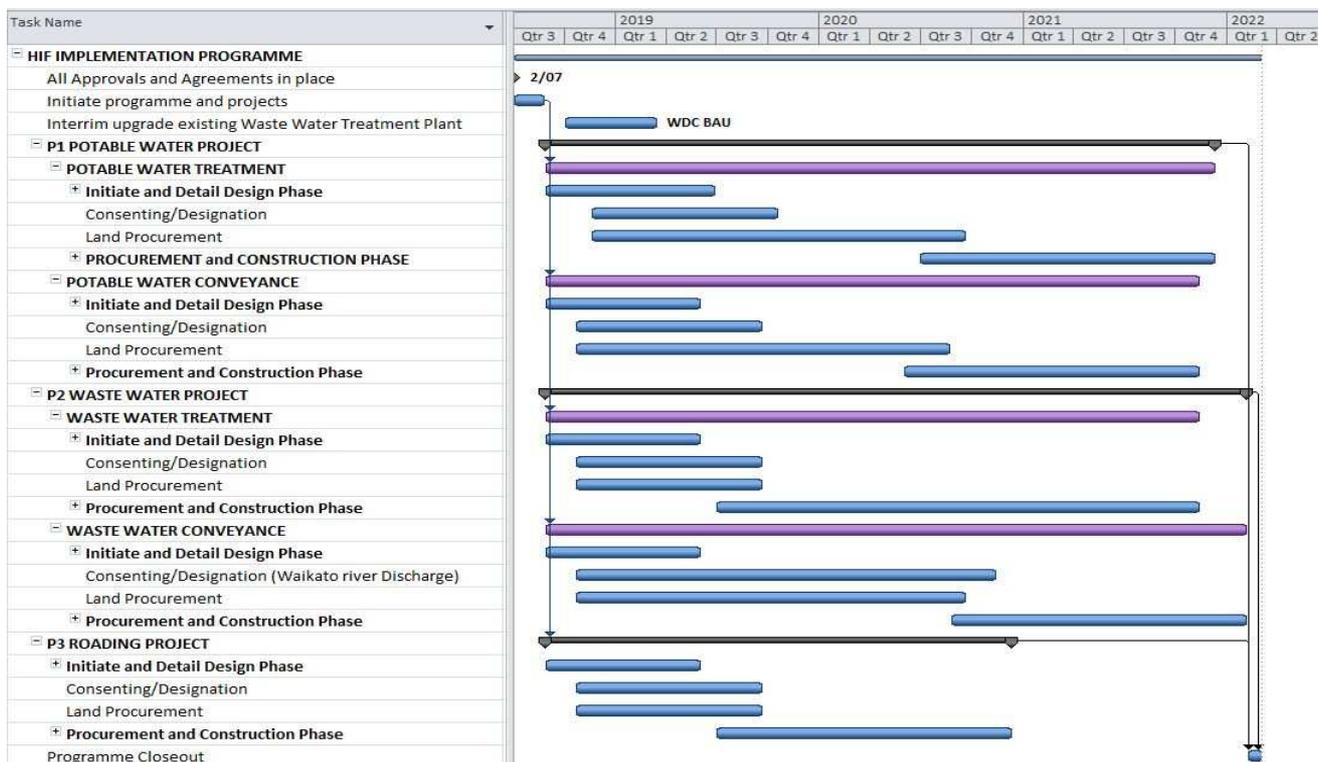
Proposed infrastructure responsibilities has been separately identified as:

- |                           |  |
|---------------------------|--|
| • Wastewater              | WDC responsibility                             |
| • Potable water           | WDC responsibility                             |
| • Local Roading Upgrades  | WDC or Lakeside Developer responsibility (TBC) |
| • Internal roading        | Lakeside Developer responsibility              |
| • Internal Potable water  | Lakeside Developer responsibility              |
| • Internal wastewater     | Lakeside Developer responsibility              |
| • Stormwater              | Lakeside Developer responsibility              |
| • Other Internal services | Lakeside Developer responsibility              |

**Early delivery of stage one of the Lakeside developments will be possible with the advancement of interim works on the existing wastewater plant to provide the necessary capacity to service the initial 400 lots of stage one of Lakeside development.**

## Sequencing and Phasing\*

The project is planned to start on the 2nd July 2018, post plan change and DBC approvals, and final legal drafting of agreements (loan and developer).



\*Each sub-project has an initiation, detailed design, consenting and/or designation, where applicable land acquisitions which are largely not material, procurement, and construction phases, with a programme closeout activity at the end of the whole programme.

### Construction Sequence\*

Project	Est. Construction Start Date	Est. Construction Finish Date
Interim capacity improvements to Wastewater Treatment plant (for stage one 400 lots)	Q4 2018	Q2 2019
Wastewater - Treatment	Q2 2019	Q4 2021
Roading Works	Q3 2019	Q4 2020
Potable Water - Conveyance	Q2 2020	Q4 2021
Potable Water - Treatment	Q3 2020	Q4 2021
Wastewater - Conveyance	Q3 2020	Q1 2022

\*Subject to delay /consenting processes and outcomes.

- The plan is aligned with the Financial Case and draw down timing. It is likely that the Council will likely require an element of pre-sales to be achieved by the developer before initial draw down is enacted, to manage Council's development risk.
- Project consenting and land acquisition activity is planned to start early, in conjunction with the detailed design process. Post detailed design, a programme wide constructability review is planned to address any unforeseen issues identified which will seek to optimise the programme and consider any implications on the proposed construction seasons.
- Substantial time has been allocated to consenting and to achieving wastewater discharge consents. In particular, based on the Watercare MBR based technology solution precedence, there is an allowance of two years to allow for the significant engagement required. This has programme delay risk associated (refer key risks section).

## Developer Strategy and Agreements

WDC has had productive discussions with Winton Partners on the Lakeside development and other major land owners within the Te Kauwhata area to align their aspirations for delivering sections and housing. The primary negotiations to secure housing supply has been with Winton Partners given their ability to advance the delivery of approximately 1,600 houses and WDC has taken a principles approach to development agreements.

Winton Partners is the largest land owner in the Te Kauwhata area with development plans to enable the development of up to 1600 houses across their land holdings. The main impediment to the proposed residential development at Lakeside Development is the requirement to rezone the property to residential, to allow the proposed development to occur. The decision on the Private Plan Change was issued 11 April 2018. The Private Plan Change has been approved. Council is required to publicly notify this decision after which time submitters will then have 30 days to appeal the decisions.



**Figure 1: Lakeside development\***

\*Staging comment to be provided by Winton Partners and their consultants (TBA in due course post plan change outcomes)

### **Development Principles (high level)**

Council is in the process of negotiating and finalising the Development Agreement which will capture the joint agreement (key terms and conditions) of the agreement between the parties. **It is still subject to final development agreement.** The agreement is based on the key principles that:

1. growth is to fund growth; and
2. growth does not financially contribute to any backlog Level of Service (e.g. compliance issues) or Renewal costs. This is funded by ratepayers receiving the service.

The parties have agreed that Development Contributions levied on Lakeside Development by WDC will:

- be equal to or less than the Development Contribution Levies for Te Kauwhata effective 1 July 2017 (including GST).
- be fixed during the interest free period of the HIF funding period. Development contributions can be adjusted by WDC after this time to account for the interest impact – thus providing a clear financial incentive to the developer to deliver more houses sooner (within the modelled ten year period).

- allow Lakeside Developments 2017 Ltd to pre pay development contributions at any time, prior to expiry of the HIF funding, to lock in the charges – again providing significant developer incentive to develop sooner.
- note that Development Contributions levied on the Lakeside Developments that are not used to repay the HIF funding, will not be fixed and will increase as per the WDC development contributions policy states.

The financial impacts and impacts on revenue (development contributions) from the agreement are reflected in the Financial Case. At the time of writing a draft Development Agreement is a work in progress, subject to detailed drafting.

The HIF fund is intended to support growth infrastructure in the first instance. The stated goal of the Housing Infrastructure Fund is “to bring forward specific transport and water infrastructure projects that will enable land to be used for new housing.” This principal has been reflected in negotiations with Winton Partners.

For the avoidance of doubt, the parties have agreed that Winton Partners is to pay (via the provision of development contributions) for growth related infrastructure (only) and that WDC will fund all works related to renewal or retrospective compliance costs of existing infrastructure.

## Sourcing options - procurement strategy

**WDC’s preferred approach to procurement is to use the Waikato Local Authority Shared Services (LASS) Professional Services Panel (PSP) to select engineering design consultants to develop the detailed design and construction drawings for the roading, water and wastewater infrastructure.**

The LASS PSP provides design consultancy services across five different disciplines, including: Building Services; Three Waters; Urban Design; Flooding Hazard Management; Planning; and Advisory services.

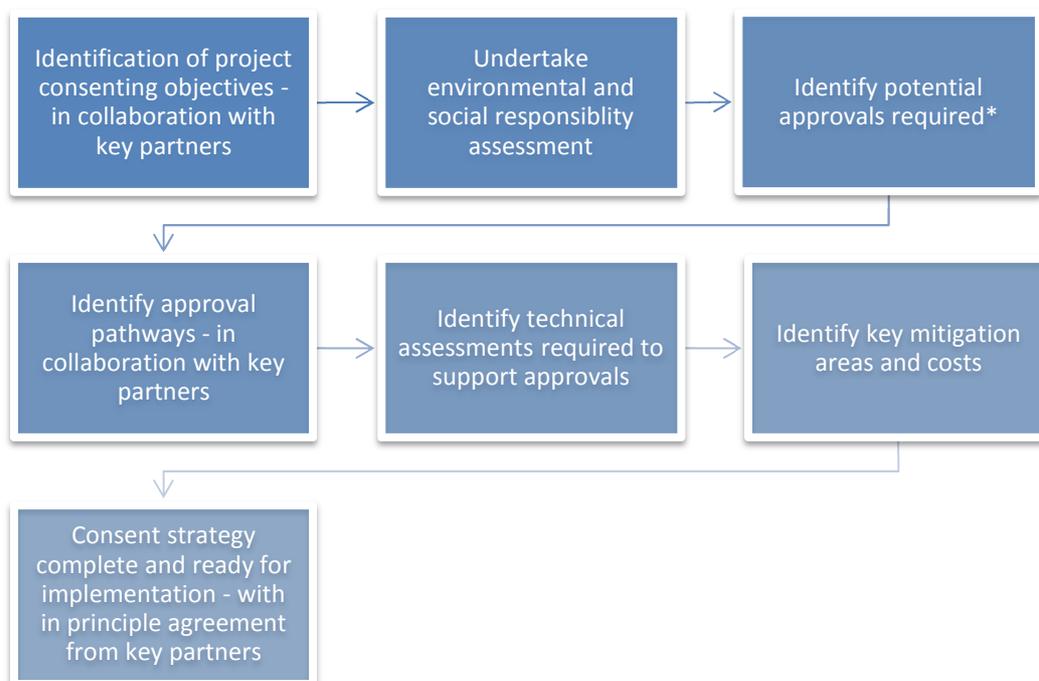
- Utilising this panel will reduce time and costs associated with a traditional procurement process allowing a efficient process and external detailed design consultants to be appointed rapidly, to expedite housing supply in Te Kauwhata.
- WDC will engage the external consultants that developed the concept designs for the water and wastewater options to support the proposed growth in Te Kauwhata to prepare project documentation (background, scope, instructions for tendering and bases for payment).

**All four physical works packages will be procured using the same approach, namely a single stage open tender based on the traditional Price Quality Method (PQM). PQM is seen to derive the best value for money outcomes and provide the best platform to obtain quality and manage/transfer risks for projects of this nature.**

## Consenting strategy and risks

**There are two components to the project which require consent – the new dwellings themselves, and the infrastructure required to support the new dwellings.**

- WDC has identified that the consent strategy process for the wastewater infrastructure will focus on early and collaborative engagement with Iwi and other stakeholders, to produce a wastewater discharge solution acceptable to the key stakeholders.
- WDC is investigating the expanded use of a Wastewater Advisory Group (WAG) to facilitate engagement with the key wastewater stakeholders. Applying this approach to the consent strategy process that will be followed (detailed below) will mitigate this key consenting risk. At the conclusion of this process the consent strategy will be complete and ready for implementation - with in principle agreement from key partners.
- The consenting requirements of the reticulated water and transport elements of the project will be addressed using the same consent strategy process, and approach to consultation, which will meet the RMA Part 2 Requirements and WDC’s consultation and engagement requirements.



### ***Consent strategy development process***

\*Approvals are potentially required under the Resource Management Act, 1991 (Waikato Regional Plans, Waikato District Plan, National Environmental Standards) Historic Places Act, 1993 and Conservation Act, 1987.

## **Property acquisition strategy**

**Council confirms they already own significant areas of land holdings in relation to delivering the key elements of the proposed projects and upgrade. The proposed developments can largely be undertaken on land either under WDC control or on land that is part of the Lakeside development. A small amount of property is required for expanding the reticulated water plant and for establishing easements the wastewater rising main to discharge.**

The affected land comprises mostly small areas of rural land holdings. Therefore, land purchase requirements are considered to be minor in terms of scale and complexity involving the follow requirements involving:

- Reticulated Water plant - \$2M allocation for land for in-situ plant.
- Cost of easements – Approximately \$180k for wastewater rising main connections to discharge points.
- No allocation for land purchases associated with wastewater rising main discharge requirements has been made – subject to consent process outcomes (e.g. requirement for potential wetlands)
- No allocation for land purchases related to local roads has been made – nothing that retaining walls have been costed rather than additional land purchase.

Details of exact areas will be **confirmed post the detailed design phase once design requirements are confirmed**. Noting the risk analysis and project contingency provides an allowance for changes to the property acquisition requirements.

**From a property acquisition perspective, the proposed projects and related acquisitions are small scale with some flexibility in land requirements, has a medium lead-in time to construction, some level of certainty, and the approach contains some reasonably straight forward properties and is subject to largely private property negotiations.**

- The project is well suited to a direct negotiated approach with current landowners with the fall-back position of an acquisition programme incorporating the Public Works Act 1981 (PWA) and its compulsory acquisition provisions. WDC's preferred acquisition method is therefore based around good faith negotiations.

**There is some risk associated with Geotechnical results and potential cost of ground treatment of land required to accommodate plant and buildings for the Wastewater Treatment Plant.**

- The developer has agreed that should the geotechnical results prove identified land is not efficient to develop, Winton Partners is willing to make available a suitable site on their development land – should this prove more efficient.

## **Building consent strategy**

**To enable construction of the 2,790 dwellings at Lakeside and those approved through the Te Kauwhata Structure Plan, all necessary building consents will be prepared and lodged upon conclusion of the consenting approvals process and detailed design. The necessary building consent applications will be lodged to WDC and will be prepared by consultants to meet the requirements of the Building Act 2004.**

- WDC plan to engage a detailed engineering design consultant who will develop a *building consent* strategy, to ensure all intricacies and links between resource consents and designation processes.
- The potable water and wastewater conveyance (pipeline) infrastructure will be exempt from the requirement to obtain a Building Consent under schedule one of the Building Act 2004. An exemption for the construction of this infrastructure will be granted by WDC.
- All buildings required for the potable water and wastewater treatment plants will require a building consent under Section 40 of the Building Act 2004, unless it is less than 10 m<sup>2</sup>.
- WDC anticipate that for the wastewater conveyance, the consultant's strategy will focus on developing the design in combination with the discharge resource consent approval prior to preparing and submitting building consent applications to minimise risk and costs.

## Risk allocation and transfer / mitigation

Key implementation risks have been identified, evaluated and recorded in the detailed risk register. These tables identify individual risk owners within WDC who are responsible for managing, mitigating or transferring each as necessary to those best placed to manage them.

The implementation risks have been assessed by WDC and the potential risk allocation between the parties is outlined in the following table. The risk apportionment has been developed by WDC based on the current project understanding between WDC, supplier and the developer(s). The potential risk allocation is based on those best placed to manage or mitigate the risk and also how WDC is able to obtain the best value for money to Council and ratepayers through delivery of the infrastructure. Final risk allocation is still to be confirmed through the developer agreement.

### *Risk allocation table*

Risk Category	Potential Risk Allocation		
	WDC	Supplier/ Developer	Shared
Design risk	20%	80%	✓
Construction and development risk	20%	80%	✓
Transition and implementation risk	20%	80%	✓
Availability and performance risk	80%	20%	✓
Operating risk	100%	-	X
Variability of revenue risks	80%	20%	✓
Contract termination risks	30%	70%	✓
Technology and obsolescence risks	100%	-	X
Programme/project control risks	70%	30%	✓
Residual value risks	80%	20%	✓
Financing risks	100%	-	X
Legislative risks	60%	40%	✓

WDC's approach includes the ability to provide for (in particular) the following items:

- Construction risk allocation includes the ability with in contract for defects and liability period to cover off non-delivery aspects. As is normal practice, the Acceptance process for work also allows for the ability to have acceptance conditions.
- Availability risk approach is based on a flexible, multi contractor approach, which mirrors the approach taken to date in the process for peer review and capacity purposes.
- Variability of revenue risk largely relates to the timing risk of Development contributions. The Development Agreement negotiated incentivises the developer to contract within the 10 year draw down period otherwise the development contribution increases – given the benefit to council is no longer available (maintaining commercial alignment).
- Contract risk is assumed to be largely related to contract structure, contingency management, management of provisional sums, and the prudent use of professional advisors for forecasting to minimise risk (e.g. WT Partners QS).

## Payment / repayment mechanisms

Council is intending to pass through development contributions (to repay the HIF loan) in the year that they are earned and make regular repayments as modelled. A cash flow has been developed as part of the Financial Case within the DBC which is based on an assumed start date and take-up assumptions that articulates the amount and timing of repayments. The Development Agreement being negotiated with the Lakeside developer is aligned with this process.

*Table 4: HIF payment repayment based on DC income assumptions*

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
No. new lots *	21	316	266	266	233	282	282	282	282	108	0
Revenue (DCs) 000's											
Wastewater	195	2,905	2,446	2,446	2,136	2,595	2,595	2,595	2,595	988	0
Water	148	2,234	1,880	1,880	1,647	1,994	1,994	1,994	1,994	763	0
Proposed repayments (beginning of year following receipt)				9,808	4,326	3,783	4,589	4,589	4,589	4,589	1,751

\* This does not include consented and lodged lots of 452 who will not receive the benefit of the HIF loan. The total including these lots is a total development of 2,790 (2338 + 452).

Note: The proposed financial case HIF drawdown and repayments table commits to a repayment schedule of \$2 million per annum for years 4-10 with the balance of \$24 million being repaid in year 11 (2029). This does not tie directly to business case financials, which are based on anticipated contributions income, but reflects a level of repayment that provides certainty for Treasury for administration purposes.

**Winton partners have provided an estimate of 200 lots per annum in the first two years of development which has been extrapolated out for the remaining 1,200 lots.**

- While council cannot guarantee market environment factors other than re-zoning (dependent on the private plan change outcome) and benefits of an interest-free loan, the development agreement will endeavour to lock in development timeframes by applying interest to any development outside the ten year timeframe.
- Any saturation of market supply and reduced developer profits may have an impact which is out of the control of Council.
- While, the development agreement will not fully mitigate this risk, the issues is essentially a commercial decision for the developer – with clear incentives to develop within the HIF timeframe.

## Contract management

**The infrastructure necessary to enable to 2,790 new dwellings in Te Kauwhata will be designed and constructed over approximately 4 years from funding approval.**

- Once funding has been approved, the responsibility for managing the pre-implementation programme will fall to the HIF Programme Manager.
- Initial tasks will include procurement of the detailed design and consenting consultants for each of the three projects.
- The project managers (outlined in the Management Case) will develop a contract and relationship management plan in consultation with successful suppliers.
- Upon award, delivery under the contract and supplier relationship management will pass to relevant project manager(s), namely the HIF Project Manager Waters and HIF Project Manager Roading.

**WDC's procurement processes and guidelines provide guidance on how to ensure that goods or services are delivered on time, at the agreed cost and to the specified requirements and that the service is being delivered as agreed, to the required level of performance and quality.**

- The contract management plan will detail mechanisms for measuring the supplier's performance and determining the overall benefits achieved.
- The supplier's performance will be reviewed monthly and issues escalated, if necessary, within the agreed governance structure to the PGG.

**As is WDC policy, contractors are required to provide a construction programme both during the tender phase and prior to commencement. This will include the critical path which is then used to determine how requested change control items are treated.**

- This programme is expected to be updated monthly, as part of the contractor's progress reporting requirements.



## Appendix 4: Management Case

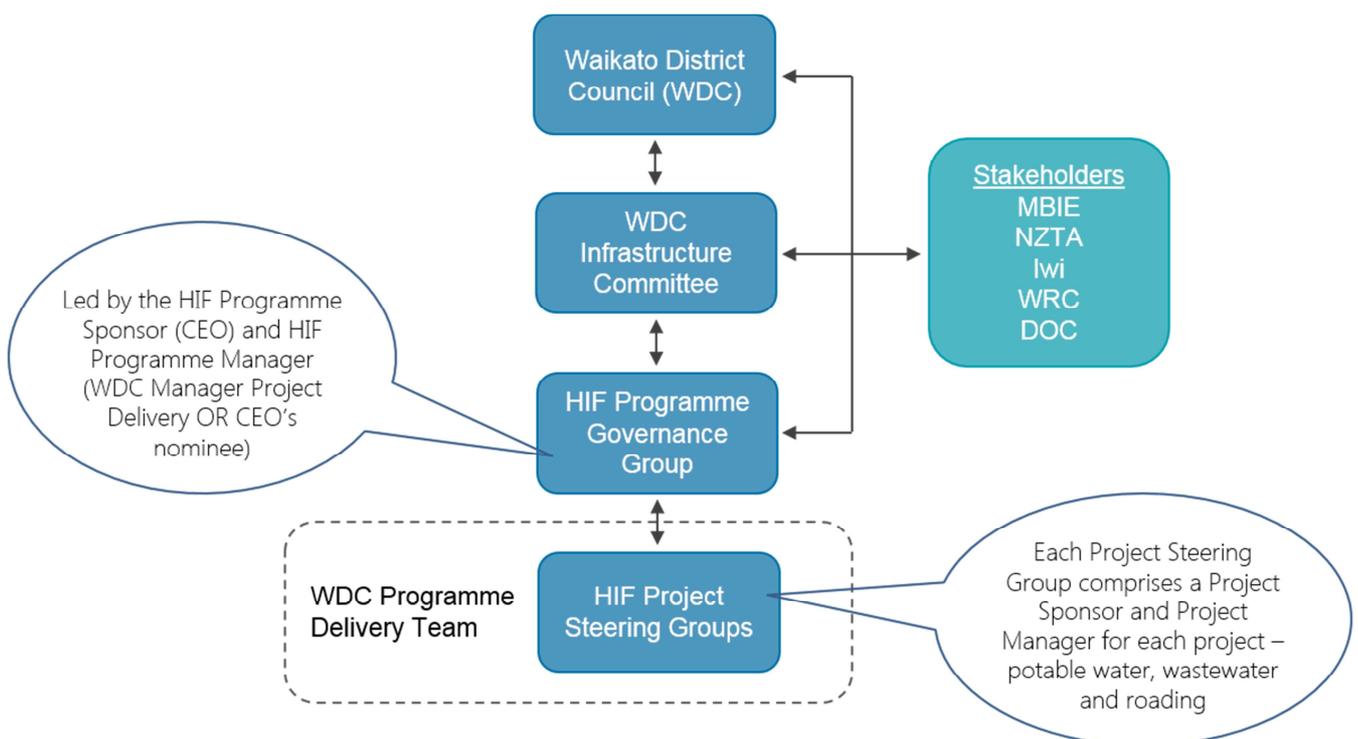
The management case confirms that the programme is deliverable within the proposed timeframes, and to the required quality standards. It established that WDC has the ability and frameworks in place to effectively manage governance, risk management, communications and stakeholder management, benefits realisation and quality assurance.

- Key personnel have been identified and roles and responsibilities assigned
- Programme milestones, outcomes and measurement have been identified
- Risk management processes are in place to manage the financial and commercial, project and technical risks
- Established processes and procedures for procurement and consultation have been agreed
- Project evaluation and benefits realisation measurement have been established

### HIF Programme Governance

A four-tiered governance structure has been developed to support quick decision making and provide robust management and governance of the infrastructure projects in line with WDC's established project management quality system. This will allow expeditious and efficient delivery to enable 'more houses sooner'.

- Governance and key day-to-day decision-making will be made by the HIF Project Steering Groups that report to the HIF Programme Governance Group, led by the Programme Sponsor - Gavin Ion, Waikato District Council Chief Executive.
- The WDC Infrastructure Committee, which reports to WDC, will oversee the HIF Programme Governance Group and monitor the development of new infrastructure and facilities.



- WDC will collaborate with Ministry of Business, Innovation and Employment (MBIE), NZ Transport Agency (NZTA) and other key stakeholders at a governance level.
- Effective collaboration and transparent communication with these stakeholders will allow for the appropriate review of risks, opportunities and issues and alignment on the appropriate management approach and ensure that required approvals and direction for the projects are obtained in a timely manner, and that benefits are realised.

## Managing implementation

**WDC uses best practise project management methodologies, for large projects. WDC's HIF Programme Delivery Team, comprising a Programme Manager and Project Managers, is responsible for the successful delivery of the programme.**

- The HIF Programme Delivery Team will lead the procurement of external consultants will be procured to deliver the detailed design and resource consenting applications associated with each of the three projects
- The HIF Programme Delivery Team will be supported by a number of central WDC functions, specifically the Consenting, Procurement, Asset Management and Regulatory teams to ensure that the projects are consented and procured within the Council's regulatory requirements, meet all statutory obligations under the Resource Management Act (RMA) and are delivered in line with the policies related to the Long Term and District Plan
- The HIF Programme Governance Group will identify work requiring independent technical peer review and appoint consultants to undertake, as necessary, this to ensure the proposed technical solutions deliver on project objectives, minimise technical risks, drive value for money and achieve benefits realisation

## Risk management

**Key implementation risks have been identified, evaluated and recorded in accordance with WDC's risk management policy and framework. WDC has an appropriate and effective risk management process in place to manage the financial and commercial, project and technical risks associated with the programme.**

- Risk management framework and processes were developed in alignment with the Joint Australian/ New Zealand International Standard Risk Management – Principles and guidelines: AS/NZS ISO 31000:2009
- Risks are identified and managed at three levels; Strategic, Operational and Project level. Each risk level has corresponding processes that provide systematic steps to assess and manage risks relative to the risk level.
- HIF programme risks will be managed on Project Steering Group level and Programme Governance Group levels, with escalation of project risks to the HIF Programme Governance Group. High impact risks will be reported to Council via the Audit & Risk and Infrastructure committees.
- Broadly speaking, the majority of programme risks have low residual risk meaning these will be managed using WDC's routine project/contract procedures, involving regular monitoring and reporting of the risk profile (on WDC's risk 'watch list').
- There are three programme risks that have more significant residual risk (High or Significant) will

require more scrutiny and ongoing watch along with specific management and more robust reporting framework. These are:

- Wastewater discharge consentability - delays or difficulty in getting approval for resource discharge consent could delay implementation of the HIF programme
- Private Plan Change 20 timings and approval – timings are independent from the HIF programme so could negatively impact programme implementation and delay benefits realisation
- Developer agreement –the final negotiations may complicate or delay the programme
- The key infrastructure project technical risks are relating to design and final cost certainty relating to:
  - Wastewater Treatment Plant – ground improvements required for developing a new wastewater treatment plant on the existing site
  - Wastewater Rising Main Conveyance – resource consent approval for the wastewater discharge location near the Waikato River. Associated stakeholder engagement and Iwi consultation.
  - Potable Water Treatment Plant - Land acquisition for plant expansion and damage to existing services during construction.
  - Roading upgrades – geotechnical conditions for road improvements.
- Risk owners and associated management approaches have been identified and documented.

## Procurement

**WDC will utilise the Waikato Local Authority Shared Services (LASS) Professional Services Panel (PSP) to procure the detailed design and consenting consultants. Given the scale and complexity of the projects being procured, this will be managed using WDC’s large scale procurement policy standards. This will allow for a robust and comprehensive procurement management process that ensures the right people do the right things, at the right time to achieve optimal outcomes**

- WDC’s Procurement Policy reflects the overarching principle guiding WDC procurement, being ‘Sustainable value for money through the whole of life of an asset or service’.
- The procurement process allows for effective risk management and stakeholder involvement, a structured approach to market and features a number of gateways/hold points to facilitate optimal choices and the most appropriate supplier selection.
- The Procurement Policy Principles are based on the Office of the Auditor General’s Good Practice Guide “Procurement Guidance for public entities”.
- Utilising the LASS panel will reduce time and costs associated with a traditional procurement process allowing a more efficient process and external detailed design consultants to be appointed more rapidly, to expedite housing supply in Te Kauwhata.
- Phase 1 will procure the detailed design of all infrastructure necessary to enable the construction of 1,190 houses and an additional 1,600 dwellings from the Lakeside Development and construction of the interim wastewater treatment plant upgrade.
- Phase 2 will procure the construction of the necessary water and wastewater infrastructure to enable the construction of 1,190 houses and additional 1,600 dwellings at Lakeside.
- There is an opportunity to have a developer-led design build contract for aspects of the infrastructure necessary to enable the new 2,790 dwellings in Te Kauwhata. It has been agreed that the road infrastructure upgrades will be undertaken by the developer and there is ongoing

discussion that the developer also lead a design build contract for the new MBR wastewater treatment plant.

## **Consultation & stakeholder engagement**

**WDC has an established and proven consultation and stakeholder engagement framework that is guided by by the International Association for Public Participation (IAP2) participation spectrum.**

- Central to programme success is consensus between programme partners and key stakeholders.
- Three organisations (NZ Transport Agency, MBIE and Waikato District Council) form the HIF Programme Governance Group (PGG) which is the main means of engagement between these parties. This group will meet monthly.
- Stakeholders have been identified on programme and project-specific levels, noting the differing interest areas and level of engagement necessary to reach agreement on key decisions or alignment on key points.
- There are a wide range of key stakeholders with interests in the three projects and majority of these have participated in ongoing engagement and consultation with WDC, however there are some exceptions given the wastewater conveyance and discharge mechanism. Associated stakeholder engagement and Iwi consultation will be central during consenting and engineering design.
- The HIF Programme Manager will be responsible for all engagement, in consultation with the three project teams. Engagement and consultation forms a standard item on the agenda for all consultant monthly reports and meetings, which provides the opportunity for the design consultant to keep the HIF Programme Manager and Delivery Team abreast of any issues or risks.





## Further information

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[www.waikatodistrict.govt.nz](http://www.waikatodistrict.govt.nz)



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