



HOUSING INFRASTRUCTURE FUND

DETAILED BUSINESS CASE – LADIES MILE

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Glossary

| Abbreviation | Term |
|--------------|---|
| BAU | Business as usual |
| DBC | Detailed Business Case |
| DWSNZ | Drinking Water Standards of New Zealand |
| EOI | Expression of interest |
| FAR | Funding Assistance Rate |
| HIF | Housing Infrastructure Fund |
| IBC | Indicative Business Case |
| ILM | Investment Logic Map |
| ITA | Integrated Transport Assessment |
| KPI | Key Performance Indicator |
| LINZ | Land Information New Zealand |
| LTP | Long Term Plan |
| MBIE | Ministry of Business, Innovation and Employment |
| MCA | Multi Criteria Analysis |
| MSQA | Management, Surveillance and Quality Assurance |
| NLTF | National Land Transport Fund |
| NPS | National Policy Statement |
| NZTA | New Zealand Transport Agency |
| ORC | Otago Regional Council |
| O&M | Operations and Maintenance |
| PBC | Programme Business Case |
| PC | Plan Change |
| QA | Quality Assurance |
| QC | Quality Control |
| QLDC | Queenstown Lakes District Council |
| RLTP | Regional Land Transport Plan |
| RMA | Resource Management Act |
| SH (#) | State Highway (number) |
| SHA | Special Housing Area |
| TLA | Territorial Local Authorities |
| UDC | Urban Development Capacity |

EXECUTIVE SUMMARY

Queenstown Lakes District Council (QLDC) is working with the Ministry of Business Innovation and Employment (MBIE) to progress three projects aimed at delivering critical housing infrastructure.

This Detailed Business Case is QLDC's formal request to obtain a \$19.2 million HIF loan and \$6.5 million NZTA FAR funding (as HIF loan to NLTF) to support a total investment of \$26.4 million that will provide infrastructure to unlock developable land for 1,100 dwelling equivalents in the Ladies Mile development corridor. To achieve this a suite of significant interventions will also be required to avoid breaching the capacity of the Shotover Bridge and state highway intersections. The funding of these interventions does not form part of this HIF funding. This case builds on an Indicative Business Case that was completed and endorsed into the detailed planning stage in June 2017.

We understand the total HIF funding is near its full allocation and this Detailed Business Case is perhaps the last to be submitted. In this regard, we highlight that the requested \$26.4 million includes 30% contingency on top of a Base Estimate of \$19.8 million. Given that the proposed infrastructure and topography is not technically or commercially challenging, the parties may favour a lower contingency allowance. Furthermore, there may be components of the work that could be excluded from the HIF and funded directly either by Council or the developer as part of the Developer Agreement, or indeed given the amount of available funding we could deduct or defer certain items from the immediate development phase. In this regard we are open to negotiation with all stakeholders.

A draft of this Detailed Business Case was circulated to stakeholders for review on 3 July 2018. A summary of comments received, and subsequent revisions made to the document, is included in Appendix 11.

Strategic Case – Making the case for change

Queenstown is classified nationally as a high growth area alongside Auckland, Hamilton, Tauranga and Christchurch. Visitor and residential growth continues to exceed projections as well as infrastructure planning. Queenstown has a relatively small number of resident ratepayers (approximately 30,000) compared to the 2 million+ annual visitors that demand high quality services. This places pressure on Councils ability to fund growth related infrastructure whilst operating under its statutory fiscal constraints.

Queenstown's Urban Area has a limited supply of appropriately zoned and commercially viable land for development, estimated at around 11,500 potential dwellings. An issue arises with the small number of landowners (4) who control the majority of this land and their willingness to develop. Balancing the needs of growth without compromising the natural beauty of the area means that the approval process of developments can take time and are often developer led and limited to a certain land parcel and are often piecemeal. Also, the limited development fronts and challenging geography leads to a comparatively slow release of developable land and higher than average house prices.

Housing affordability and an adequate supply of suitable housing are crucial to maintaining a functioning community with a strong economy. Currently the Queenstown Lakes District housing market is experiencing major issues with the supply, affordability, and suitability of housing.

QLDC has a central role to play in the development and regulation of the district in a manner that provides high quality services to residents and visitors alike. It works closely with the New Zealand Transport Agency (NZTA), who own and operate the State Highway network, the primary transport corridor connecting the Queenstown CBD and the Ladies Mile development corridor.

Ladies Mile has been identified as a suitable area for residential development because of its proximity to the city and favourable topography. The land is located close to the existing Lake Hayes Estate and Shotover Country residential developments. In 2017 the land was incorporated into the QLDC Special Housing Area (SHA) Lead Policy, effectively encouraging development by minimising the planning constraints. Due to volume constraints on State Highway 6, the SHA Lead Policy includes a 'policy pause' at 1,100 consented residential units at Ladies Mile.

Transport issues are a key constraint to development at Ladies Mile. Studies across Queenstown confirm that there are District-wide transport issues which are not only isolated to the Ladies Mile corridor or the near-capacity Shotover Bridge. It is recognised that car dependant development is not sustainable into the future as there is very limited opportunity to increase highway capacity in an affordable way. Numerous Queenstown transport studies recommend significant improvements to public transport and active travel are already required to reduce the use of private vehicles and delay the necessity of significant road network capacity improvements. For example, the Shotover Bridge is already over 90% capacity and will soon reach capacity with background growth alone, whether Ladies Mile is developed or not.

Cars remain the dominant form of transport in the area and often there is only one occupant. This business case encourages modal shift to get people out of their cars and utilising public transport. There are many opportunities to increase the attractiveness of changing the mode of transport, from adding bus shelters and increasing bus frequencies, through to building bus priority lanes and park and rides. Council will also consider alternative land use planning through the District Plan zoning to minimise the reliance on cars.

The recent Integrated Transport Assessment (ITA) performed by Opus as part of this HIF evaluation has identified that the preferred option of 1100 lots requires a high degree of modal shift. Therefore, the focus going forward must be on evaluating and developing appropriate transport interventions to achieve modal shift and encourage higher housing density to make the development more affordable.

Accepting a development intensity less than 1,100 lots will not provide an affordable housing solution, and the opportunity to rectify an already compromised highway network will be lost. In fact, the more people living in the Ladies Mile area, the more realistic a high-intensity public transport system becomes. For example, to justify the high cost of an MRT solution you would want to house as many people as you physically could to achieve maximum utilisation and cost recovery. The ITA and this HIF have therefore identified trigger points for evaluating effectiveness, monitoring and reforecasting growth and reevaluating future interventions. The interventions required to alleviate congestion on State Highway 6 are not part of the HIF project but needs to happen concurrently, as without it the benefits will not be achieved.

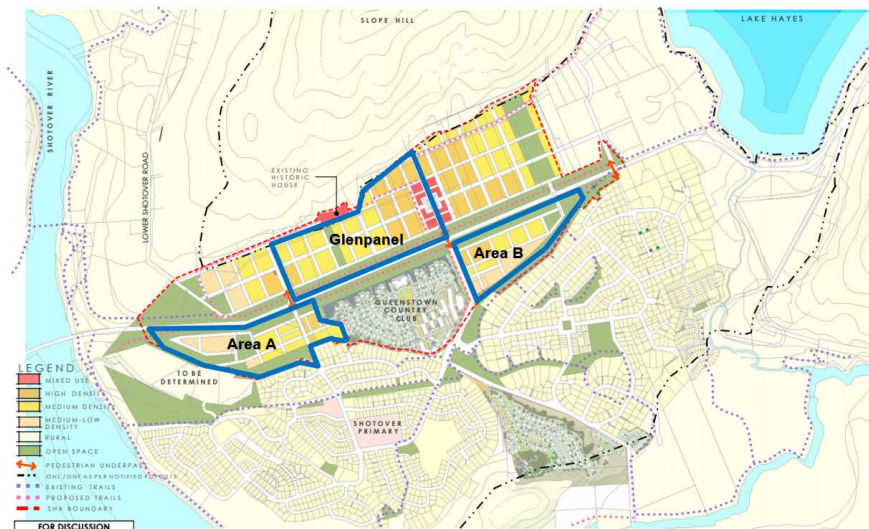
The SHA Lead Policy includes an indicative masterplan with a proposed grid pattern layout to enable an efficient use of land for housing, as well as providing convenient walking, cycling and public transport connectivity. The SHA lead policy requires an element of contribution to affordable housing. The guidance given is that the council considers at least 10% of the residential component shall be identified for affordable housing. The proposed HIF funded development will provide the enabling infrastructure for developing the Ladies Mile SHAs. The SHA lead policy will assist the HIF project by guiding the development and enabling faster development.

The developer of the Glenpanel site is currently preparing to submit a reworked SHA Expression of Interest (EOI) to Council. Their previous EOI for 207 lots in 2016¹ was unsuccessful due to insufficient information to determine if the site could be adequately serviced. The previous barriers to development faced at Glenpanel have been removed by both the subsequent change to the SHA Lead Policy and the HIF funding for bulk infrastructure. The developer is keen to develop the site and has already invested in a stormwater solution of sharing and upsizing the Queenstown Country Clubs conveyance stormwater pipe. The developer is keen to move once the infrastructure constraints are addressed.

¹ This was prior to Ladies Mile being added to the SHA Lead Policy.

The Economic Case

The preferred project (confirmed through a multi criteria analysis) will provide infrastructure to enable the mixed density residential development of 1,100 lots at Glenpanel and Areas A and B, refer to plan below.



2. INDICATIVE MASTER PLAN

The development will be staged to work in with developer readiness and transport interventions that are occurring concurrently. The project will include the following interventions:

STAGE 1:

- Transport:
 - New roundabout (SH6/Howards Road)
 - One pair of bus stops and bus shelters on SH6 (location to be confirmed).
 - SH6 pedestrian/cycleway underpass near bus stops.
 - Footpaths along SH6 to underpass and bus stops.
- 3 Waters:
 - New water supply reservoirs (2 x 1000m³), with associated rising main from the Shotover Country bore field and falling main to service the proposed developments.
 - New wastewater rising main along SH6 from Howards Drive intersection, connecting to existing infrastructure at the Shotover Bridge.
 - Stormwater pipe connecting to the Queenstown Country Club stormwater discharge pipe

STAGE 2:

- 3 Waters:
 - Wastewater pumpstations and rising mains for Areas A and B to connect to the existing network.
 - Stormwater pipe discharging to the Shotover River south of the SH6 bridge.

Economic analysis of the transport infrastructure indicates that the BCR increases as the number of dwellings also increases, because without the roundabout the delay time at the intersection of Howards Drive/SH6 fails to provide sufficient level of service. Once the roundabout is installed, Programme 1 offers a BCR of 2.17 for only 450 lots, while Programme 2 provides a BCR of 2.75 for 750 lots.

Trigger points will also be required in a Memorandum of Understanding to be prepared by QLDC, NZTA and ORC to enable a review of the mode shift uptake to public transport and active travel according to the table below. Following acceptance of this Detailed Business Case, the MOU will be developed for the purpose of confirming the expectations about transport trigger points and interventions relating to SH6 along Ladies Mile

(between Lake Hayes and Shotover bridge). This MOU will apply to the development of housing described by this Detailed Business Case, up to a maximum of 1,100 homes, which is the robust limitation imposed by QLDC's 'Policy Clause'. It is expected that the MOU will formalise the following ten steps, expanded to include levels at which each intervention should be designed, constructed and implemented.

| Sequence | Action / Intervention | Trigger | Control Mechanism | Funding |
|----------|-----------------------|--|---------------------------------|--------------------------|
| 1 | Prior to first lots | Construct access Roundabout at Howards Drive | DA for Development | DA HIF |
| 2 | Prior to first lots | Construct Bus Stops and Underpass on SH | DA for Development | DA HIF |
| 3 | Prior to first lots | Improve PT Level of Service - Target 20% | DA for Development | MOU ORC |
| 4 | By end of 450th lot | Construct Park & Ride East of Ladies Mile | Design @150. Construct @300. | MOU NZTA |
| 5 | Park & Ride | Complete Improve PT Level of Service - Target 25% | Park & Ride Complete | MOU ORC |
| 6 | By end of 750th lot | Construct Bus Priority Lane (Park & Ride to Shotover Bridge) | Design @450. Construct @600. | MOU QLDC / NZTA |
| 7 | Priority Lane | Complete Improve PT Level of Service - Target 27% | Priority Lane Complete | MOU ORC |
| 8 | By end of 900th lot | Implement Diversion Improvements | Design @750. Construct @825. | MOU QLDC / NZTA |
| 9 | By end of 1,100th lot | Improve PT Level of Service - Target 29% | 900 Lots | MOU ORC |
| 10 | Prior to 1,101st lot | Future PT Infrastructure / Modal Shift | 900 Lots | MOU QLDC / NZTA / ORC |

The Commercial Case

Developer interest in this area is significant considering the recent success of the nearby Lake Hayes Estate and Shotover Country developments. Most recently the neighbouring Queenstown Country Club was granted resource consent under the Housing Accords and Special Housing Areas Act.

The new Ladies Mile Masterplan, included in the SHA Lead Policy, provides an opportunity to develop the land. Council officers have been working closely with two partnering developers who have an advanced development plan (Glenpanel Development Ltd and Maryhill Ltd, together as Glenpanel SHA). These developers are together preparing to lodge an Expression of Interest for a Special Housing Area (SHA) under the Council's SHA Lead Policy. Providing access to this land also benefits the residents of Lake Hayes Estate and Shotover Country by the provision of a roundabout at the intersection of SH6 and Howards Drive.

Developers will be responsible for the funding and construction of all their internal roading and 3 waters infrastructure. QLDC be responsible for the construction of all external transport and 3 waters infrastructure and will use the HIF loan to help fund it. The water pipelines to the reservoir passes through the developers' land, QLDC will construct and fund using the HIF loan. Construction of the new roundabout on SH6, the underpass and bus stops will be funded by QLDC (using the HIF loan and an NZTA subsidy).

The Financial Case

It is proposed that \$19.0m of funding for this \$26.4m project is provided via the Housing Infrastructure Fund (HIF) with repayments being made from development contributions. Transport will be partially funded by NZTA at 51% via the Local-Road Funding Assistance Rate (FAR) as a separate \$6.5m HIF-funded loan directly to the National Land Transport Fund (NLTF), not QLDC. The breakdowns are shown in the tables below.

HIF Apportionments

| Activity | Total | QLDC HIF Funding | HIF as a % of total |
|------------------|----------------|------------------|---------------------|
| 3-Waters | \$13.7m | \$13.0m | 95% |
| Transport | \$12.7m | \$6.2m | 49% |
| TOTAL | \$26.4m | \$19.2m | 73% |

A FAR of 51% has been assumed due to the significant access improvements for the Lake Hayes Estate and Shotover Country communities, and the safety improvements for all traffic through the Howards Drive intersection.

Road Funding Assumptions (2018\$)

| Roading | P50 Estimate | FAR | NZTA Subsidy | QLDC HIF Portion |
|-------------------|-----------------|-----|----------------|------------------|
| Roundabout | \$7.65m | 51% | \$3.90m | \$3.75m |
| Bus Stop | \$2.37m | 51% | \$1.21m | \$1.16m |
| Underpass | \$2.23m | 51% | \$1.14m | \$1.09m |
| TOTAL | \$12.26m | | \$6.25m | \$6.01m |

Road Funding Assumptions (2018 \$ vs inflated \$)

| Roading | Total | HIF Portion | NZTA Subsidy |
|--------------------|----------|-------------|--------------|
| 2018 \$ | \$12.26m | \$6.01m | \$6.25m |
| Inflated \$ | \$12.70m | \$6.22m | \$6.47m |

Indicative Development Contributions

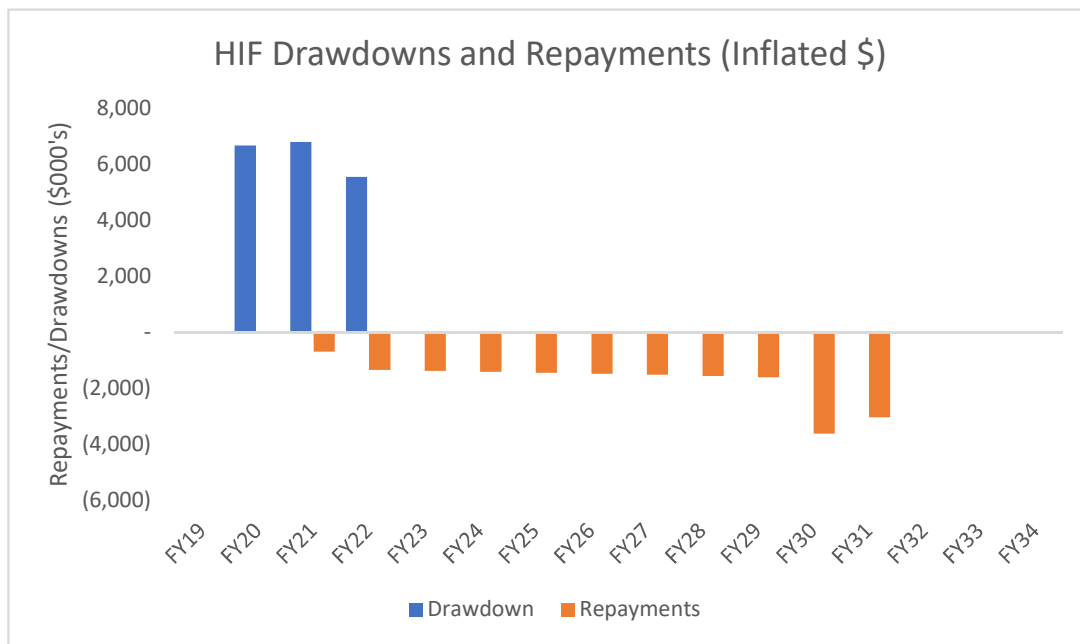
| Activity | Indicative Development Contribution per Dwelling Equivalent |
|-----------------------------------|---|
| Water Supply | \$5,170 |
| Wastewater | \$3,466 |
| Stormwater | \$2,121 |
| District Wide Transport DC | \$4,960 |
| TOTAL | \$15,717 |

The project will span four financial years. The proposed spend profile is outline below.

Proposed Spend Profile for the Project

| Annual Spend (\$000's Inflated) | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | TOTAL |
|---------------------------------|--------------|----------------|-----------------|----------------|----------|-----------------|
| Project Development | \$511 | \$131 | \$139 | - | - | \$780 |
| Pre-implementation Phase | - | \$486 | \$734 | \$60 | - | \$1,281 |
| Implementation Fees | - | \$285 | \$293 | \$170 | - | \$748 |
| Physical Works | - | \$6,681 | \$6,851 | \$4,365 | - | \$17,897 |
| Contingency | - | \$2,189 | \$2,245 | \$1,250 | - | \$5,683 |
| TOTAL | \$511 | \$9,772 | \$10,262 | \$5,846 | - | \$26,390 |

The proposed drawdown and repayment schedule is shown in the figure below.



The Management Case

QLDC will apply a comprehensive system of controls, management reporting, audit and assurance processes throughout the development and implementation of the Ladies Mile HIF project.

Three levels of assurance will be applied to this project as part of wider governance arrangements for HIF projects in Queenstown Lakes District. A governance/steering group will look across the HIF projects from a strategic district and investment perspective and Ladies Mile-specific project control and project delivery groups will oversee the project implementation².

Project benefits have been well defined, and a Benefits Realisation Plan is being developed to provide the mechanism for measuring and monitoring them as the project moves through implementation. This Benefits Realisation Plan will include the requirement to agree a MOU, Trigger Points and any other funding conditions that are required. Similarly, significant changes and milestones have been identified and supported by proposed management steps.

Specific project benefit targets for Ladies Mile and their proposed realisation dates are shown below.

| Benefit | KPI | Measure | Target and date |
|---|-------------------------------|--|---------------------|
| Improved housing affordability | More low-cost houses | % of new houses less than 65% of the average sales price | 40% by 2027/28 |
| | | Infrastructure costs per dwelling | \$14,000 by 2017/18 |
| Efficient and effective housing supply | Accelerated supply of housing | Number of new sections with resource consent | 1,100 by 2025/26 |
| | | Number of new houses with code of compliance | 1,100 by 2027/28 |

² Refer to the Management Case in section 11 for the Terms of Reference for each group.

A preliminary programme of works, including pre-implementation is included in Appendix 10. The key dates are shown here.

| Activity | Target Date |
|--|-------------------------|
| Construction of transport and 3 waters infrastructure to enable Glenpanel | May 2019 - July 2020 |
| Release Glenpanel sections to market | November 2020 |
| Construction of 3 waters infrastructure for Areas A & B | April 2021 - March 2022 |

1 Introduction

This Detailed Business Case is QLDC's formal request to obtain a \$19.2 million HIF loan and \$6.5 million NZTA FAR funding (as a HIF-funded loan to NLTF) to support a total investment of \$26.4 million that will provide infrastructure to unlock developable land for 1,100 dwelling equivalents in the Ladies Mile development corridor.

The business case process is organised around a five-case structure designed to systematically ascertain that the investment proposal:

- is supported by a compelling case for change - the 'strategic case'
- optimises value for money - the 'economic case'
- is commercially viable - the 'commercial case'
- is financially affordable - the 'financial case', and
- is achievable - the 'management case'.

After the Indicative Business Case was endorsed into the detailed planning phase in June 2017, this Detailed Business Case (DBC) seeks to:

- identify the investment option that optimises value for money
- prepare the investment proposal for procurement
- plan the necessary funding and management arrangements for the successful delivery of the project, and
- to seek agreement to approach the market with a request for proposals and finalise the arrangements for implementation of the project.

PART A: THE STRATEGIC CASE FOR CHANGE

2 Background

2.1 Introduction

Queenstown is experiencing significant growth and the supply chain is struggling to satisfy the demand for more houses. The total housing demand for the Queenstown urban area over the next 30 years has been forecast to need an increase of 7,200 dwellings. Projections are based on statistics New Zealand census area unit projections, with additional local factors included. Approximately 240 residential units per year are needed in the Queenstown urban development area just to keep up with current demand. In terms of affordability, Queenstown house prices are among the highest in New Zealand. Queenstown is regarded in the National Policy Statement for Urban Development capacity as a high growth area.

QLDC is facing funding constraints and will need to rely on borrowing in order to deliver the substantial capital programme included in their Ten-Year Plan³. The growth portion of the Capital Programme will be largely funded by development contributions in the long run but must be funded primarily by debt in the first instance. Some of this debt will be via the Housing Infrastructure Fund to allow QLDC to prepare for anticipated growth and to direct development activities in specific areas (such as Ladies Mile). This allows for QLDC to spread the cost of large infrastructural projects over the expected life of the asset.

The Housing Infrastructure Fund has been established with the objective of bringing more houses to market sooner. This detailed business case investigates the case for change and preferred option to proactively invest in the infrastructure for the Ladies Mile development corridor of the Queenstown Urban Area.

2.1.1 The Transport Challenge

Transport issues are a key constraint to development at Ladies Mile. Several studies across Queenstown confirm that there are wider transport issues within the District, they are not isolated to the Ladies Mile corridor or the capacity of Shotover Bridge. Transport is limited by both the network capacities of the State Highway and District roads, as well as system constraints including the limited provision of public transport and active travel modes.

It is recognised that car dependant development is not sustainable into the future as there is very limited opportunity to increase highway capacity in an affordable way. All recently undertaken or planned Queenstown Transport Studies include improvements to public transport and active travel, to improve the attractiveness and reduce the use of private vehicles.

Recent improvements to the Queenstown Area Bus Network (including \$2 bus fares) has seen monthly patronage more than double. The Ladies Mile development is currently serviced by two bus routes, each operating hourly throughout the day and half hourly during peak times. In residential areas bus stops are currently approximately 500m apart and typically there is no shelter. Buses use the same lanes as the general traffic, there are currently no bus priority lanes.

Annual mode split surveys for traffic into Queenstown show little has changed in the past ten years, with cars making up 85%. Pedestrian and cyclist traffic has remained around 10% and 1% respectively. The number of cars entering Queenstown town centre reduced slightly in 2018 compared to 2017, there was minimal changes to bus numbers but an increase in coaches. It is concluded that more people are travelling by bus to the town centre than in the past. A 2018 vehicle occupancy survey for Shotover Bridge showed 65-69% of vehicles had single occupants during AM and PM peaks.

Cars are the dominant form of transport in the area and often there is only one occupant. This business case assumes that we can get people out of their cars and into public transport. There are many opportunities to increase the attractiveness of changing the mode of transport, from adding bus shelters and increasing bus

³ Taken from QLDC Ten-Year Plan 2018-2028 draft consultation document

frequencies, through to building bus priority lanes and park and rides. Council could also consider alternative land use planning through the District Plan zoning to minimise the reliance on cars.

2.2 Ladies Mile Overview

The proposed Ladies Mile residential development corridor covers 136ha of relatively flat greenfield land along both sides of Ladies Mile (SH6) between the Shotover River and Lake Hayes (see Figure 1, below). The proposed development area is adjacent to two major residential developments, Lakes Hayes Estate and Shotover Country. The land is currently zoned as Rural with coverage consisting mostly of pasture, dispersed stand-alone dwellings and open space. In 2017 the land was incorporated into the QLDC Special Housing Area (SHA) Lead Policy, since then the Queenstown Country Club SHA has been consented and started construction. Due to constraints on SH6 the SHA Lead Policy currently has a 'policy pause' at 1,100 consented dwellings at Ladies Mile⁴. The Integrated Transport Assessment carried out to support this business case indicates that the constraints are more significant than originally thought, this was discussed in section 2.1.1 above.

The HIF project will enable the development of a large centrally located block of land (Glenpanel) which is developer ready, and the remaining development areas on the southern side of SH6 (see Figure 1, below). The project includes new transport and 3 waters infrastructure to enable 1,100 dwellings. The transport aspects will improve existing capacity and safety of the access into Lakes Hayes Estate whilst maintaining the existing level of service on State Highway 6 on Ladies Mile. 3 waters infrastructure will enable the developments. The proposed project includes the following provisions:

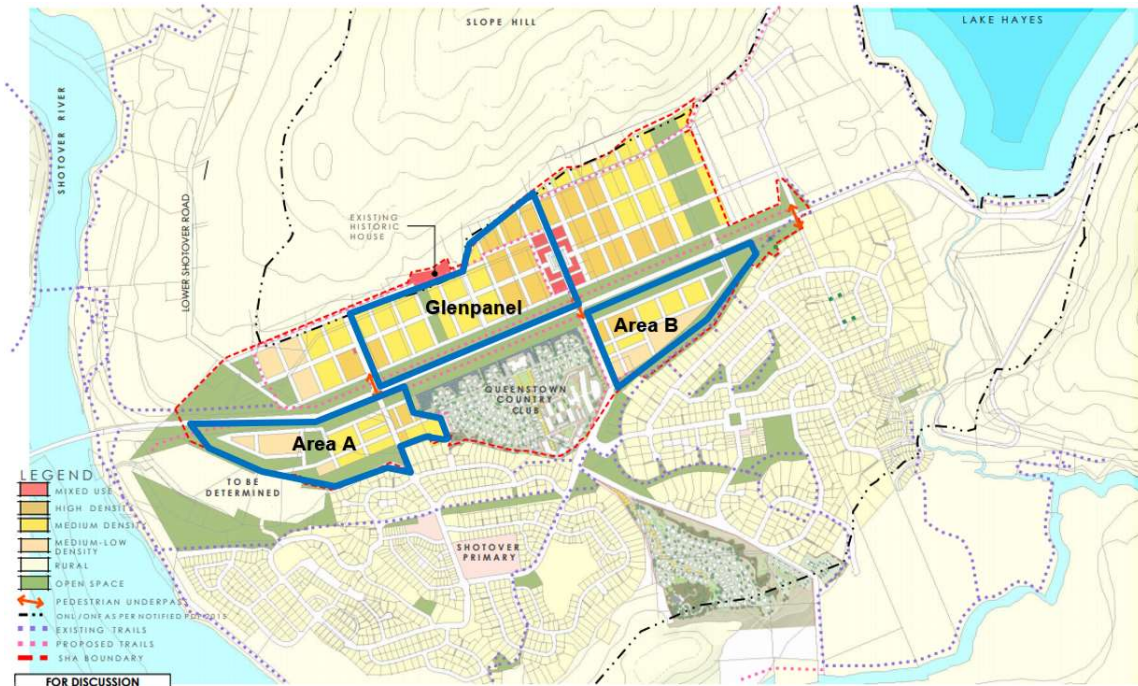
- New water supply reservoirs, with a rising main from the Shotover Country bore field and falling main to service the proposed developments.
- New wastewater rising main along SH6 connecting to existing infrastructure at the Shotover Bridge. Two pump stations and associated emergency storage for developments on the southern side of SH6 (at lower elevations).
- Stormwater will require the installation of two new pipelines; one connecting to the Queenstown Country Club stormwater discharge pipe and one discharging to the Shotover River south of the SH6 bridge.
- A new roundabout at the intersection of SH6 and Howards Drive
- Pedestrian/cycleway underpass.
- New bus stops on SH6.

If zoned according to the Ladies Mile Indicative Master Plan, the proposed Ladies Mile residential development could ultimately provide a further 2,185⁵ residential dwellings for the district commencing from 2018/19. Development cannot occur in this area without the proposed infrastructure. An expression of interest in 2016⁶ for a Glenpanel SHA comprising 207 lots, located in the same area, was not recommended to the Minister in part because of uncertainties around infrastructure. With a greater number of lots now proposed, the affordability of infrastructure upgrades becomes more achievable.

⁴ Note that following more updated modelling carried out for this DBC it is recommended that the policy be updated to include trigger points at 450 and 750 lots to review/implement transport interventions (interdependent to the HIF project).

⁵ In addition to the Queenstown Country Club

⁶ Note that this was before Ladies Mile was included in the SHA Lead Policy



2. INDICATIVE MASTER PLAN

Figure 1: Proposed Ladies Mile Development Area (with proposed HIF enabled areas outlined in blue)

2.2.1 The Opportunity at Ladies Mile

The opportunity at Ladies Mile includes capacity for development of 1,100 houses within a greenfield site adjacent to the existing Lake Hayes Estate and Shotover Country residential developments. The land of interest has multiple land owners. The provision of transport and three waters infrastructure would remove existing roadblocks and speed up the development of the land. HIF funding would alleviate existing financial constraints.

A number of recent changes in the vicinity of Ladies Mile have assisted in creating the opportunity to develop the site with the aim of more houses faster, including:

- Recent decision by council to encourage SHA development at Ladies Mile, including the development of an Indicative Master Plan for the area – 2017.
- The Queenstown Country Club (QCC) SHA, shown in the Ladies Mile master plan, is already under construction on the south side of Ladies Mile – 2018.
- Recent construction of a roundabout on SH6 at Stalker Road to serve Shotover Country to the south of Ladies Mile - 2016.
- A large commercial development is quickly developing nearby, at Frankton Flats - ongoing.
- Recent public transport improvements within the Queenstown area include a bus route along SH6 with a regular, inexpensive bus service - 2017.
- Availability of HIF funding will enable QLDC to invest in transport and 3 waters infrastructure, effectively removing potential roadblocks to agreement for development between multiple landowners - 2017.
- Construction of a new primary school at Shotover Country (walking/cycling distance from Ladies Mile development) - 2015
- Relocation of Wakatipu High School to Remarkables Park – opened 2018
- Opportunity to provide benefits to the existing developments at Lake Hayes Estate and Shotover Country including better access from SH6 and provision of a village centre and small retail area.
- Two of the property owners (Glenpanel Development Ltd and Maryhill Ltd in partnership) have together already expressed interest in creating a special housing area on their part of the land.

2.3 Supporting Work Completed to Date

Many investigations and other supporting work have been completed in the development of this detailed business case for Ladies Mile, including:

- Review of QLDC policies, Long Term Plan and Infrastructure Strategy.
- Review of preliminary engineering performed by the developer's.
- Meetings with Glenpanel developers.
- Draft developer agreement shared with Glenpanel developers. The developers have stated throughout the negotiations that they are ready to proceed but cannot without NZTA approving an access point on SH6.
- Meetings with key stakeholders including NZTA and ORC.
- Update of cost estimates for the detailed design and construction.
- Draft agreement between MBIE and QLDC on the terms and conditions of the funding.
- Refinement of the preliminary engineering design including Benefit Cost Ratios.
- Integrated Transport Assessment by WSP-Opus to evaluate the impact of development on the State Highway
- Risk Workshop, Risk Register and pricing of risk contingency.

Previous studies that are of relevance in support of this Ladies Mile DBC are summarised in Table 1 below.

Table 1: Strategic Alignment

| Strategy/Plan | Key Objectives | Alignment |
|---|--|--|
| QLDC Affordable Housing Strategy (June 2005)⁷ | To increase access to quality, affordable housing that is integrated into the community. | ✓ This development should be able to provide affordable housing for workers employed in the many new jobs being created on the Frankton Flats and on public transport routes for workers in Queenstown. |
| QLDC Growth Management Strategy 2007 | Growth is located in the right places: The types and mix of growth meets current and future needs. | ✓ The area is contiguous with Frankton Flats development, and while outside the existing urban boundary it provides an opportunity to concentrate development in a favourable location in terms of proximity and terrain, rather than allow piecemeal iterative development throughout the Wakatipu Basin. ✓ Will provide more housing through release of supply at a rate beyond projected demand. |
| QLDC 2015-2045 Infrastructure Strategy | Effective and efficient infrastructure that meets the needs of growth. | ✓ Yes. The intention of this project will achieve this objective. |

⁷ For the purposes of this Strategy, housing is considered to be affordable in the QLDC area if households can access adequate housing by spending a maximum of 30% of their gross income.

The term "adequate housing" includes the suitability of the dwelling to meet the specific needs of the household, in terms of (a) size (not being overcrowded for example), (b) the quality of the design and construction of the dwelling and its facilities and services, including reasonable physical condition, energy efficiency and privacy, and (c) the suitability of the location enabling the household to access employment, shops, school and community facilities without long trips by car.

| Strategy/Plan | Key Objectives | Alignment |
|--|--|--|
| QLDC Financial Strategy (LTP 2015-Vol 2) | To provide goods and services for community and social benefit rather than for a financial return. | ✓ Yes. The intention of this project will embody this objective. |
| Special Housing Area (SHA) – Glenpanel EOI (initial proposal 2016) | To enhance housing affordability by facilitating an increase in land and housing supply. | ✓ Developers initially expressed an interest to QLDC for the site becoming an SHA for 207 lots in 2016. The initial EOI was not accepted by QLDC because there was insufficient information in its submission to determine if the site could be adequately serviced. (Note that this land is now included in the Special Housing Area (SHA) Council Lead Policy and the developer is preparing to reapply for the SHA) |
| Otago Southland Regional Land Transport Plans 2015-2021 (and proposed variations (Dec 2017) currently out for consultation) | The long-term goal is a transport system in Otago and Southland that provides adequately for mobility, economic activity and productivity while minimising road trauma. | ✓ The following are included in the top priority projects proposed for 2018-2021: <ul style="list-style-type: none"> • SH6 Ladies Mile Improvements • HIF projects, Ladies Mile & Quail Rise South |
| Ladies Mile HIF Funding: Indicative Business Case (2017) | Makes the case for government to provide an interest-free loan of up to \$15.7 million in 2017/18 and 2018/19 to finance infrastructure that will bring forward the supply of developable land within the Queenstown Urban Area. This will enable developers to construct 1,100 medium density residential units at Ladies Mile. | ✓ Yes. The proposed development will use the loan to enable more houses faster. |
| Queenstown Integrated Transport Programme Business Case (2017) | <ol style="list-style-type: none"> 1. To improve network performance for private vehicles, public transport and cycling 2. Improved liveability and visitor experience | ✓ Yes, although both strategies are still under development. The Ladies Mile development corridor is considered a good strategic fit with the overall network improvements planned in the PBC. Agreement will be required between QLDC, NZTA and ORC to align interventions. |
| The Wakatipu Basin Land Use Study (WBLUS) (March 2017) (Assessment undertaken in response to the Proposed District Plan review minutes) | Identifies areas able to absorb development without adversely affecting environmental and amenity values. Findings are being further investigated and do not represent Councils point of view at this point in time. | ✓ A Ladies Mile Gateway Precinct was recommended as one of two areas ⁸ within the Wakatipu Basin with high capacity to absorb residential development. |

⁸ The second area recommended was an Arrowtown Precinct

| Strategy/Plan | Key Objectives | Alignment |
|---|---|--|
| Special Housing Area (SHA) Council Lead Policy | In October 2017 QLDC added the Ladies Mile area to its lead policy on Special Housing Areas (SHA) as a category 2 area. | ✓ Yes. The proposed HIF funded development will provide the enabling infrastructure for developing the SHA area. The SHA lead policy will assist with this project by guiding development and enabling faster development. |
| QLDC draft Ten Year Plan 2018-2028 | The Plan includes the HIF development at Ladies Mile. | ✓ The proposal for Ladies Mile is included in the draft Ten Year Plan. |

3 Strategic Context

This part of the strategic case confirms the strategic context for the investment proposal and makes a compelling case for change. The strategic context section:


- Provides a general overview of QLDC and the outcomes that it is seeking to achieve, or contribute to, through its operations
- Provides evidence of two key challenges facing Queenstown:
 - High growth rates
 - Infrastructure funding constraints
- Highlights the impacts of these challenges
- Confirms the alignment to existing policies and strategies

3.1 Organisational Overview

The author of this business case is Queenstown Lakes District Council (QLDC). The QLDC has a central role to play in the development and regulation of the District in a manner that provides high quality services to residents and visitors alike. This includes, amongst other things, providing good quality local infrastructure.

Queenstown Lakes is a unique district in New Zealand. It has significant population and economic growth⁹ coupled with an international reputation as a tourist destination. It has a relatively small number of resident ratepayers (approximately 37,100¹⁰) but experiences more than 24,000 visitors on average day and more than 79,300 on the peak day¹¹.

With regard to core infrastructure and services, the QLDC Long Term Plan (2015-2025) states:



Our long term Council outcome is:

High performing infrastructure and services that:

- > meet current and future user needs and are fit for purpose;
- > are cost effective and efficiently managed on a full life-cycle basis; and
- > are affordable for the District.

QLDC's mission is:

To enhance the quality of life for all people within the District:

- By further developing services and facilities.
- By carrying out sound social, physical and economic planning.
- By ensuring the provision of cost effective services is responsive to community needs

Council value statements:

- Commitment to striving for the long-term desires of each community.
- Protection of the environment is essential.
- Recognition of the diversity of communities within the District.

⁹ Queenstown Lakes District Annual Economic Profile 2016 (by Infometrics for QLDC) Reports on growth in Queenstown compared with New Zealand up until March 2016. Economic growth in Queenstown-Lakes District averaged 4.2%pa over the last 10 years compared with an average of 1.8%pa in the national economy. Queenstown-Lakes District's population was 34,700 in 2016, up 7.1% from a year earlier. New Zealand's total population grew by 2.1% over the same period. Population growth in Queenstown-Lakes District averaged 4.1%pa over the last 5 years compared with 1.4%pa in New Zealand

¹⁰ Source: StatsNZ Infoshare: Estimated residential population in June 2017.

¹¹ Visitor numbers are for 2018 and taken from Rationales QLDC Growth Projections to 2058 (2017)

- Communication and consultation with the residents and ratepayers of the district on major policy direction.
- Provision of services in a cost effective and efficient manner.
- A high level of service to residents and ratepayers of the district.
- Management of community assets with a long-term strategic view of community desires.
- A proactive approach to managing the resources of the district.
- A commitment to the strategic planning process.

3.2 The Challenges of Fast Growth

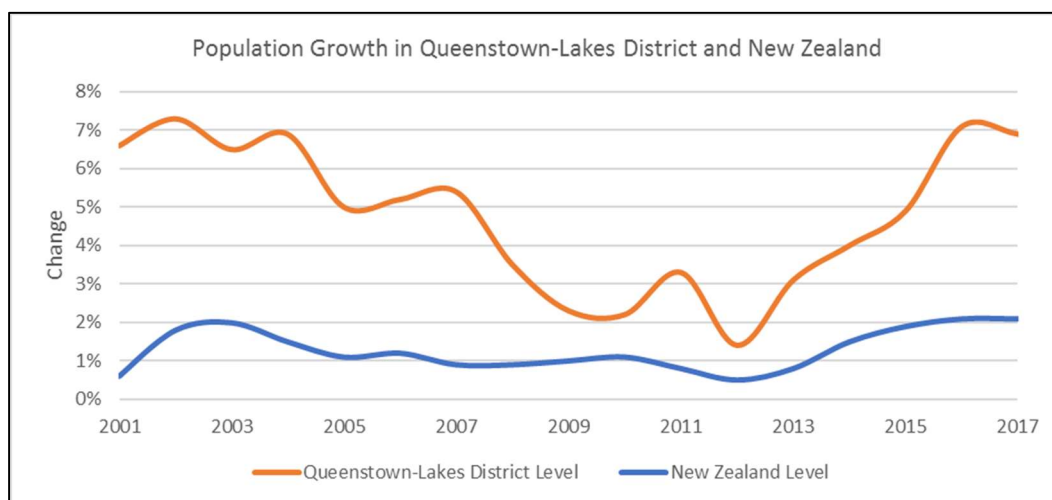
Queenstown and its surrounds faces ongoing growth pressures to sufficiently supply housing and associated infrastructure. High population and visitor growth continues to exceed projections. Queenstown’s relatively small population base must support infrastructure that carries peak visitor demands four times that of typical days. This places further pressure on ratepayers and the NZTA to fund new and upgraded infrastructure. Being situated within the Southern Alps further constrains the commercial viability of Queenstown’s available land supply for development. A shortage of viable and readily developable land exacerbates housing affordability problems; the new developments at Hanley Downs, Bridesdale and Bullendale all experienced fast section sales. The lack of affordable housing supply is also impacting on the ability of workers to find suitable accommodation¹². Many of these workers are seasonal but some are also moving here for work in the large construction industry that exists to supply growth.

Each of these pressures is further detailed in the following sub-sections:

- evidence of high growth rate
- latest growth projections
- how the growth projections have changed over the past decade
- National Policy Statement for Urban Development Capacity
- financial constraints
- housing affordability
- transport infrastructure nearing capacity

3.2.1 Evidence of High Growth Rate

Queenstown and the surrounding areas have been experiencing significant growth for several decades. Figure 2 below compares the population growth rate between Queenstown Lakes District and the rest of New Zealand. It highlights that the district has had a growth rate typically much higher than the national average



¹² Evident in numerous news articles and documented in QLDC Section 32 Evaluation Report: MDR Zone (District Plan review)

dating back to at least 2001. Growth projections show that the high rates of growth in Queenstown are predicted to continue.

Figure 2: Population growth in Queenstown and New Zealand (Source: Infometrics website)

3.2.2 Latest Growth Projections

Table 2 below summarises the district's and Queenstown's demand projections for the next 40 years, with continued growth expected throughout this period. This shows district growth of over 28,000 people during the 30-year period between 2018 and 2048, requiring an additional 11,900 houses. The Queenstown growth (shown as Wakatipu Ward) is expected to see an additional 18,300 residents over the same period accommodated within 7,400 new homes. Note that there are additional unoccupied dwellings on top of these figures, making the total number of new dwellings over this period for Queenstown, 8,100. The table shows a steady increase in the proportion of occupied dwellings, indicating a greater utilisation on the dwelling stock by the resident population and a trend toward visitors staying in commercial accommodation¹³.

Table 2: Estimated Population and Dwelling Demand

| Wakatipu Ward | 2015 | 2018 | 2028 | 2048 | 2053 | 2058 | Growth# 2015 - 2028 | Growth% 2015 - 2028 | Growth# 2015 - 2048 | Growth% 2015 - 2048 |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|------------------------|------------------------|------------------------|------------------------|
| Usually Resident Population | 22,070 | 25,557 | 32,627 | 43,846 | 46,610 | 49,374 | 10,557 | 48% | 21,776 | 99% |
| Occupied Dwellings | 8,529 | 9,825 | 12,575 | 17,250 | 18,465 | 19,708 | 4,046 | 47% | 8,720 | 102% |
| Unoccupied Dwellings | 2,102 | 2,303 | 2,679 | 3,011 | 3,061 | 3,105 | 577 | 27% | 910 | 43% |
| Total Dwellings | 10,631 | 12,128 | 15,254 | 20,261 | 21,526 | 22,813 | 4,623 | 43% | 9,630 | 91% |
| Wanaka Ward | 2015 | 2018 | 2028 | 2048 | 2053 | 2058 | Growth# 2015 - 2028 | Growth% 2015 - 2028 | Growth# 2015 - 2048 | Growth% 2015 - 2048 |
| Usually Resident Population | 10,340 | 12,491 | 16,650 | 22,509 | 23,933 | 25,357 | 6,310 | 61% | 12,169 | 118% |
| Occupied Dwellings | 4,279 | 5,181 | 6,949 | 9,517 | 10,154 | 10,796 | 2,669 | 62% | 5,237 | 122% |
| Unoccupied Dwellings | 2,133 | 2,409 | 2,471 | 1,817 | 1,620 | 1,421 | 339 | 16% | -315 | -15% |
| Total Dwellings | 6,412 | 7,590 | 9,420 | 11,334 | 11,774 | 12,217 | 3,008 | 47% | 4,922 | 77% |
| Queenstown Lakes District | 2015 | 2018 | 2028 | 2048 | 2053 | 2058 | Growth# 2015 - 2028 | Growth% 2015 - 2028 | Growth# 2015 - 2048 | Growth% 2015 - 2048 |
| Usually Resident Population | 32,410 | 38,048 | 49,277 | 66,355 | 70,543 | 74,731 | 16,867 | 52% | 33,945 | 105% |
| Occupied Dwellings | 12,809 | 15,006 | 19,524 | 26,767 | 28,619 | 30,504 | 6,715 | 52% | 13,958 | 109% |
| Unoccupied Dwellings | 4,234 | 4,712 | 5,150 | 4,828 | 4,681 | 4,526 | 916 | 22% | 594 | 14% |
| Total Dwellings | 17,043 | 19,718 | 24,674 | 31,595 | 33,300 | 35,030 | 7,631 | 45% | 14,552 | 85% |

(Source: Rationale February 2017)

Current projections for the district show that the following changes are expected over the next 10 years:

- A resident population increase of 29%.
- A total visitor increase of 25%.
- A 24% increase in the number of dwellings and rating units.

¹³ QLDC Growth Projections to 2058 by Rationale

3.2.3 Growth Projections – the moving target

Previous growth projections underestimated the growth that is being experienced. This has added to the challenge of keeping up with the provision of infrastructure to service the fast-growing population.

Rationale produced a report in December 2015 entitled ‘QLDC Growth Projections 2015-2055’ to review and develop growth projections for QLDC. The report considered resident population, dwellings and rating units.

Figure 3 below shows the population change occurring in the Queenstown Lakes District and the change in projections from 2004. During the Global Financial Crisis (2007-2012) the projections were downgraded (shown purple). However, since that time, there has been a considerable spike in both visitor numbers and residential growth partly driven from larger than expected immigration numbers.

Population continues to grow (both resident and visitor) at a higher rate than that predicted in 2014 and in earlier years. An increasing population requires an increasing housing stock to accommodate them.

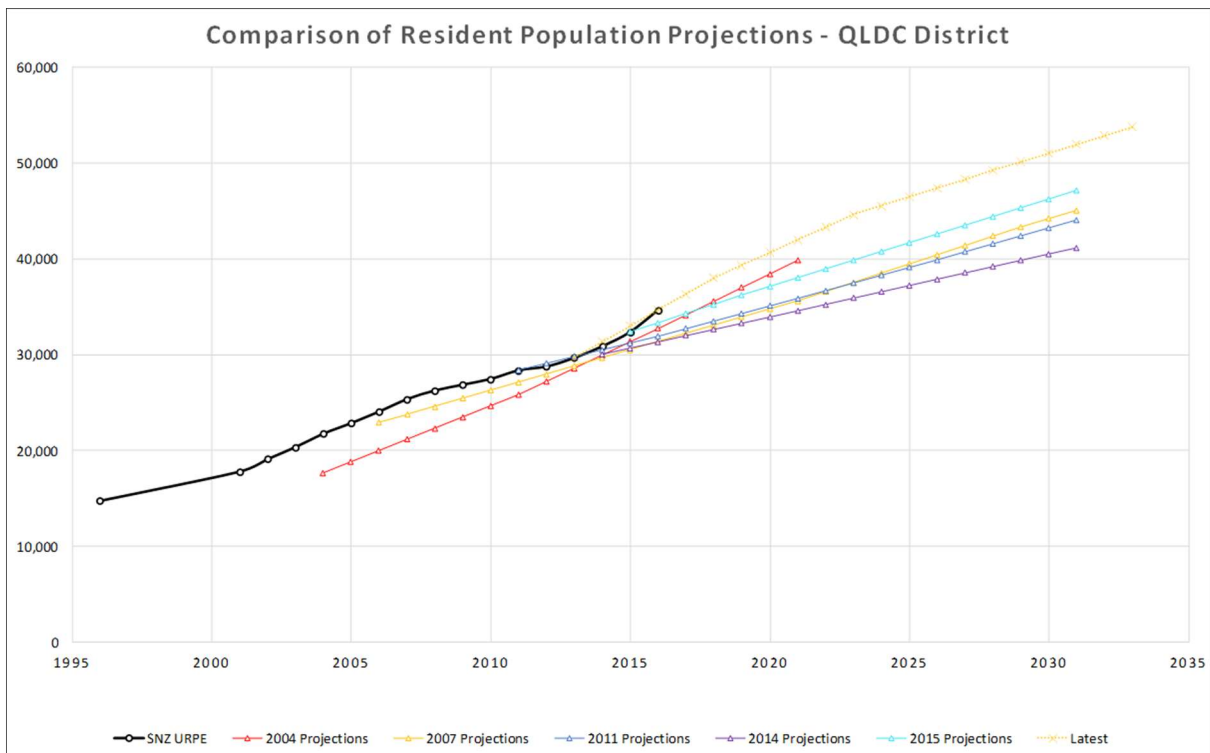


Figure 3: Comparison of Resident Population Projections - QLDC District 2004-2016 (source: Rationale 2015)

3.2.4 Capacity Under National Policy Statement

The National Policy Statement – Urban Development Capacity (NPS-UDC) came into force on 1 December 2016. Under the NPD-UDC local authorities are required to ensure (under PA1) that the development capacity identified in this report is, or can be, serviced by “development infrastructure”. However, the “other infrastructure” necessary to support urban growth is also important for the creation of effective and efficient urban environments, and together supports the achievement of social, economic, and cultural wellbeing.

Policies PA1 and PA2 are directly related to this application to the Housing Infrastructure Fund, as shown in Figure 4 below.

PA1: Local authorities shall ensure that at any one time there is sufficient housing and business land development capacity according to the table below:

| | |
|--------------------|--|
| Short term | Development capacity must be feasible, zoned and serviced with development infrastructure. |
| Medium term | Development capacity must be feasible, zoned and either: <ul style="list-style-type: none"> • serviced with development infrastructure, or • the funding for the development infrastructure required to service that development capacity must be identified in a Long Term Plan required under the Local Government Act 2002. |
| Long-term | Development capacity must be feasible, identified in relevant plans and strategies, and the development infrastructure required to service it must be identified in the relevant Infrastructure Strategy required under the Local Government Act 2002. |

PA2: Local authorities shall satisfy themselves that other infrastructure required to support urban development are likely to be available.

Figure 4: Obligations of local authorities in relation to development capacity.

The latest QLDC dwelling capacity model (updated in 2017 for Proposed District Plan Hearings) shows a 'realisable' zoned capacity of 15,100 across the Queenstown area (Wakatipu ward) and an additional 885 of Special Housing Areas. Throughout the PDP Stage 1 hearings process, it has been confirmed that the network can accommodate the additional growth proposed through the notified PDP and is either planned within the LTP, contained within the Infrastructure Strategy or is being provided by the land developer.

The challenges associated with meeting increasing growth demands particular to Queenstown are many. They include the impact from increasing numbers of visitors and migrant workers, and the high proportion of holiday homes. Also, the natural constraints of the district's outstanding landscapes, mountainous terrain, lakes and natural hazards, and pressure on roading, all of which make readily developable land more scarce and constrain the outward growth of urban areas as well as influence the cost of development. Other barriers such as land banking, construction industry capacity constraints, the cost of local building materials and labour also adversely impact on the affordability of dwellings in the district.

Policies PB6 and PB7 of the NPS-UDC require local authorities to monitor a range of indicators to ensure they are well informed about demand for housing and business development. This monitoring has highlighted that house prices and rental costs are continuing to increase. Evidence suggests that this is being matched with increases in the issuing of new residential building consents and subdivision consents, which are being issued at record rates. Across all growth scenarios there is a shortage of dwellings being supplied to the market at the lower end of the price range. The development at Ladies Mile will contribute to the housing stock in this lower end price range.

The Housing Infrastructure Fund can therefore assist QLDC in meeting its obligations under the NPS-UDC by assisting with the provision of infrastructure that supports housing development.

Within the Queenstown Lakes district, Queenstown is a high growth urban area, policies PC5- PC14¹⁴ and PD3-PD4 also apply to Queenstown. A Future Development Strategy must be prepared to identify the broad location, timing and sequencing of future development capacity in the medium and long term. Any successful

¹⁴ NPS-UDC Policy summary:

PC5-11: Local authorities shall set **minimum targets** for sufficient, feasible development capacity for housing.

PC12-14. Local authorities shall produce a **future development strategy** that demonstrates there will be sufficient, feasible development capacity in the medium and long terms and that the minimum targets will be met.

PD3. Local authorities that share jurisdiction over an Urban Area are strongly encouraged to cooperate.

PD4. Local authorities shall work with providers of **development infrastructure** and **other infrastructure** in preparing the future development strategy.

proposal approved as part of this Housing Infrastructure Fund application will assist in determining the Future Development Strategy for the Queenstown Lakes district. Table 3 below shows the indicative targets set by QLDC to contribute to the NPS.

Table 3: Contribution to Development Capacity

| | 2017/18-2019/20 (1-3 years) | 2020/21-2027/28 (3-10 years) | 2028/29-2047/48 (Up to 30 years) |
|--|--------------------------------|---------------------------------|-------------------------------------|
| Territorial development capacity targets required to meet the NPS-UJC | 1,800 | 3,000 | 6,000 |

3.2.5 Financial Constraints

The financial constraints facing QLDC are captured well in the consultation materials supporting the new Ten-Year Plan. The summary below has been sourced from the Ten-Year Plan 2018-2028 draft consultation document.

“In order to deliver the substantial capital programme included in this plan, QLDC will need to rely on borrowing. The amount of borrowing required is significantly above the amount anticipated in the 2015-2025 Ten Year Plan. At the end of 2017 the Council applied for a credit rating from Fitch Ratings, an international credit rating agency. This has been granted at AA-, which enables the Council to access a higher debt limit and borrow more. Council has spent a considerable amount of time and effort working through the Capital Programme to ensure that it is affordable, necessary and deliverable.

This has meant that a number of projects have been deferred or omitted due to of funding and financing constraints. It is expected that by the end of year five, external debt will have risen to \$443M and by the end of the ten-year period it will have declined to \$339M. In 2015, we forecast our external debt for these years to be far lower, at \$169M and \$134M respectively.

The growth portion of the Capital Programme (\$317M or 32.5% of the total Capital Programme) will be largely funded by development contributions in the long run, but must be funded primarily by debt in the first instance. Some of this debt will be via the Housing Infrastructure Fund to allow QLDC to prepare for anticipated growth and to direct development activities in specific areas. This allows for QLDC to spread the cost of large infrastructural projects over the expected life of the asset.”

Details of the Council’s borrowing limits are included in Appendix 8, and a ten-year summary is presented in Table 4 below.

| Borrowing Limit | Year 1 Jun-2019 | Year 5 Jun-2023 | Year 10 Jun-2028 |
|---|--------------------|--------------------|---------------------|
| Interest expense/Rates <30% | 10.3% | 20.6% | 13.7% |
| Interest expense/Total revenue <20% | 5.4% | 9.3% | 7.8% |
| Net debt/Total revenue <250% | 130.3% | 208.2% | 165.0% |

Table 4: QLDC forecast debt ratios

3.2.6 Housing is becoming more unaffordable

Queenstown is faced with an unprecedented housing affordability challenge. The average sales price in December 2017 was \$895,188. While, the ratio of median house prices to median incomes for Queenstown is the highest in the country in January 2018 at 12.39, i.e. the median price for a house is 12.39 times the median income (noting that Auckland metro is 8.89). Average weekly rents in Queenstown were the highest

in the country at \$550, up 13 percent from \$486 in in December 2016 and above average rents in Auckland at \$512.

Figure 5 below shows the change in Queenstown average house value compared to New Zealand’s main urban areas. For the past two years the percentage increase of house values in the Queenstown has been considerably higher than the national average and increasing each year.

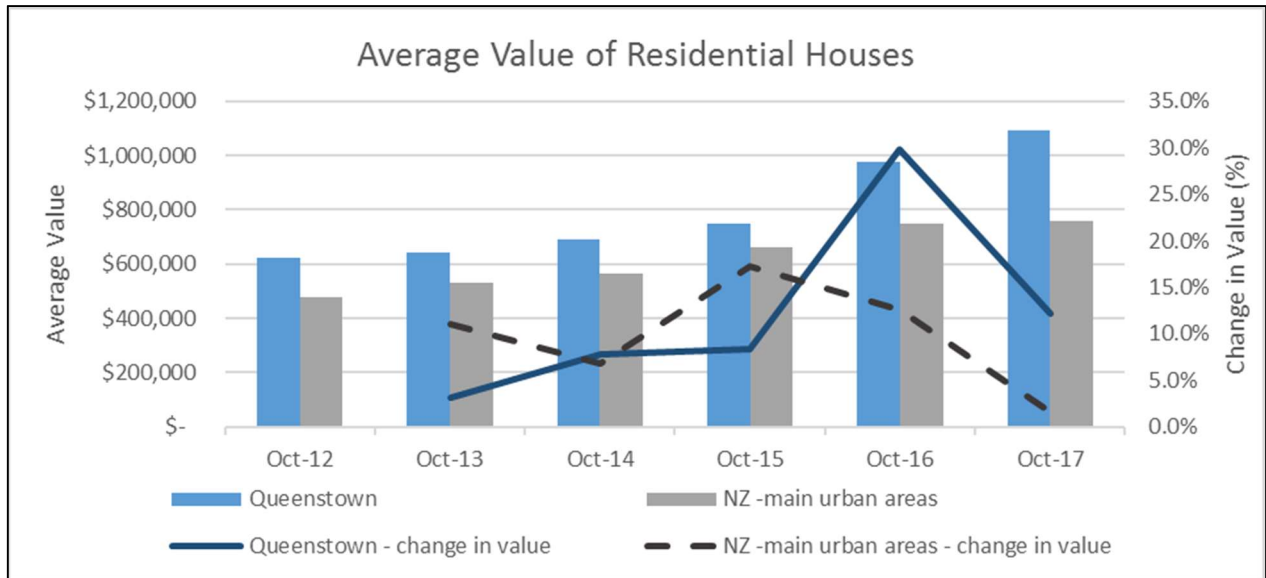


Figure 5: Average Value of Residential Houses (Source: QV website)

The cost of housing in Queenstown is becoming less and less affordable for much of the population and this is further confirmed in the sales data available from QV.com. The table in Appendix 1 shows that in the three-month period from mid-August 2017 to mid-November 2017 house sales in the Queenstown district were mostly over half a million dollars. The most affordable suburb to buy a residence within 20 minutes of Queenstown was Fernhill where six flats were sold at median price of \$629,000. All other suburbs within 20 minutes of Queenstown had sales medians over \$750,000. This is well above the national median sales price of \$530,000¹⁵ (October 2017). The only suburbs in the district with sales medians under \$500,000 were Glenorchy and Kingston (both are 46 minutes commute to downtown Queenstown), with one house sold in Makarora (150 minutes from Queenstown).

Due to the high cost of housing in Queenstown some of the population are needing to look further afield to find affordable housing, and therefore commuting to Queenstown for work¹⁶. Figure 6 below demonstrates the level of rental affordability compared to the index for New Zealand and the upward trend in unaffordability for Queenstown Lakes. This is a further indication of the impact of the inadequate supply of houses in the Queenstown Lakes district.

¹⁵ REINZ Residential Statistics report for October 2017

¹⁶ <https://www.stuff.co.nz/business/property/85317493/people-turn-to-commuting-as-queenstown-house-prices-soar>



Figure 6: District rental affordability compared to New Zealand.

Source: Infometrics economic profile for Queenstown Lakes District.
<https://ecoprofile.infometrics.co.nz/Queenstown-Lakes%20District>

Defining affordability

For the purposes of this DBC, affordable housing is defined by the QLDC Affordable Housing Strategy which considers housing as affordable if households can access adequate housing by spending a maximum of 30% of their gross income. This figure reflects the additional costs households face in the Queenstown district, including higher heating costs and other household running costs. It also reflects the make-up of the community and the economy, and the reliance on service and trade workers for the continued economic vitality of the settlements. There is concern about the number of households unable to purchase affordable housing yet who contribute to the diversity of the community, are long-term residents of the community, and/or are essential for local economic vitality and quality of life.

The term “adequate housing” includes the suitability of the dwelling to meet the specific needs of the household, in terms of size (not being overcrowded for example); the quality of the design and construction of the dwelling and its facilities and services, including reasonable physical condition, energy efficiency and privacy. It also considers the suitability of the location enabling the household to access employment, shops, school, medical doctors and community facilities without long trips by car. Shortage of land for development and continually high demand is evident by the high price of properties in Queenstown and the surrounding district. The flow-on effect being a shortage of affordable housing in Queenstown.

The average household income for the Queenstown Lakes District was \$73,300 in the 2013 Census. Assuming \$22,000 of this income is allocated to servicing a 30-year mortgage payment at 7% (with 20% deposit), an affordable house would be priced at approximately \$340,000. Houses in the district are not affordable for households on an average income and based on Figure 5 they haven’t been for at least the past five years.

It is not uncommon for people to commute long distances to work in Queenstown/Frankton. Statistics New Zealand 2013 census data shows that approximately 60 people were commuting each day from the Wanaka/Hawea area (60-90 minutes’ drive) and approximately 200 people from Cromwell/Alexandra (55-80 minutes’ drive). Housing affordability would be one of the reasons for commuting.

For further comparison, during the same period as the table in Appendix 1, Cromwell (56 minutes commute) had 30 house sales with a median price of only \$540,500. All of these metrics would have grown substantially in the 4 years since the 2013 Census. Commutes from surrounding townships and districts rely on the level of service provided by State Highways. They also rely on the district plan zoning of neighbouring TLAs. Both of which are beyond the immediate influence of QLDC.

3.3 Alignment to Existing Policies and Strategies

The development of the Ladies Mile corridor aligns with several local and national strategies and plans, which are discussed further below.

3.3.1 Housing Accords and Special Housing Areas Act (HASHAA) 2013

Act Purpose

To enhance housing affordability by facilitating an increase in land and housing supply in certain regions or districts, identified as having housing supply and affordability issues.

The Housing Accords and Special Housing Areas Act 2013 came into force on 13 September 2013 as a short-term measure to streamline and fast track housing development and associated infrastructure through the Resource Management Act 1991.

Special Housing Areas are sites in the city that are suitable for new housing and able to be developed fast to increase housing supply. Development of these sites can be fast-tracked under the Housing Accord and Special Housing Areas Act 2013, through an accelerated resource consenting process.

In October 2017 Council added Ladies Mile to Category 2¹⁷ of QLDCs Special Housing Area Lead Policy. The policy specifies that Council will require expressions of interest to be generally consistent with the Ladies Mile Indicative Master Plan, Indicative Landscape Strategy and development objectives (all three are part of the Lead Policy document). The policy also states that expressions of interest for Ladies Mile will not be accepted once resource consents for qualifying developments have exceeded 1,100 residential units.

The Ladies Mile Master Plan is shown in Figure 7 on the following page. The proposed grid pattern layout will enable an efficient use of land for housing, as well as providing convenient walking, cycling and public transport connectivity. This ensures that development is looked at holistically, ensuring the right form and scale of infrastructure and services are provided.

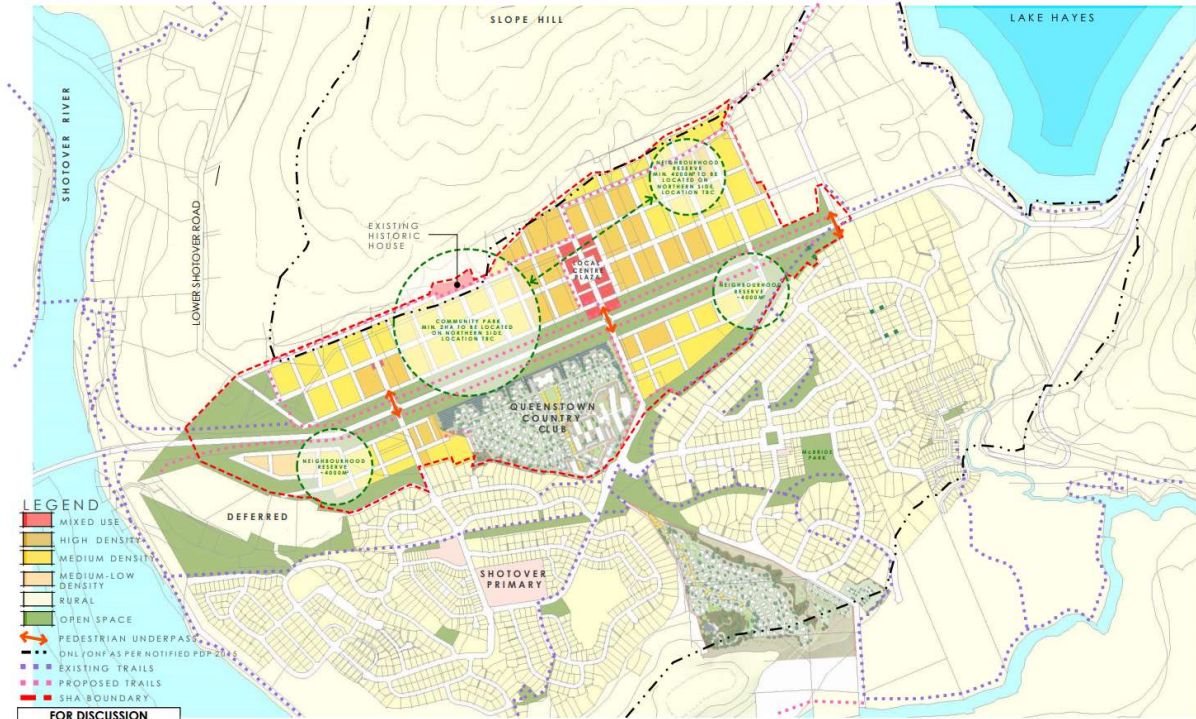
The SHA lead policy requires an element of contribution to affordable housing. The guidance given is that the council considers at least 10% of the residential component shall be identified for affordable housing.

The proposed HIF funded development will provide the enabling infrastructure for developing the Ladies Mile SHAs. The SHA lead policy will assist the HIF project by guiding the development and enabling faster development.

Glenpanel Development Ltd and Maryhill Ltd as partners are currently preparing to submit a reworked SHA EOI to Council for the Glenpanel site. Their previous EOI was unsuccessful due to insufficient information to determine if the site could be adequately serviced. The previous barriers faced at Glenpanel have potentially

¹⁷ Category 2 includes areas that may be suitable for establishment as special housing areas, subject to further assessment against the Lead Policy.

been removed by the subsequent change to the SHA Lead Policy and the potential of HIF funding for bulk infrastructure.



2. INDICATIVE MASTER PLAN

Figure 7: Indicative Master Plan for Ladies Mile, taken from the QLDC SHA Lead Policy

3.3.2 Queenstown Lakes District Council (QLDC) and Regional Policies and Strategies

QLDC Growth Management Strategy 2007

The QLDC Growth Management Strategy 2007 outlines core growth management strategies for the District. It outlines six key growth management principles; the second principle is:

Principle 2: The type and mix of growth meets current and future needs

Two of the strategies to implement this principle that align with the proposed Ladies Mile development are:

- All settlements are to have strong centres that are community hubs, with a clustering of retail, business, public transport, and community services.
- Affordable housing is to be actively pursued through regulatory and non-regulatory means

The Ladies Mile masterplan includes mixed housing densities and a central hub that will service new and existing residential development in the vicinity. Development taking place as an SHA will ensure that at least 10% of the development will be affordable.

QLDC 2015-2045 Infrastructure Strategy and 2015-2025 Long Term Plan¹⁸

The strategy and the ten-year plan are linked. A common key goal is: *Effective and efficient infrastructure that meets the needs of growth.*

Effective and efficient infrastructure that meets the needs of growth.

Whilst funding is not specifically allocated in the 2015 Long Term Plan, Council now sees the need to lead infrastructure provision into development areas to ensure the right areas are being developed in a comprehensive manner, and housing affordability is managed through appropriate supply of development land.

The project fits with the key objectives and is contiguous with Lake Hayes Estate and Shotover Country developments.

QLDC draft Ten Year Plan 2018-2028

The draft Ten Year Plan is currently out for consultation. It includes the HIF development at Ladies Mile with allocations for 3 waters and roading.

QLDC Affordable Housing Strategy (June 2005)

The affordable Housing Strategy aims to increase access to quality, affordable housing that is integrated into the community. The Ladies Mile development will provide affordable housing close to many new jobs in Frankton Flats and public transport routes for workers in Queenstown. Development taking place as an SHA will ensure that at least 10% of the development will be affordable.

To increase access to quality, affordable housing that is integrated into the community.

Overarching Transport Programme Business Case (2017)

The Queenstown Integrated Transport Programme Business Case (PBC) defines the overarching case for change. It has been developed by NZTA and partnering organisations in parallel with the HIF indicative business case. The fourth (and latest) draft of the PBC was issued in July 2017.

The overarching PBC incorporates the Frankton Flats PBC and aims to progress and co-ordinate this work with the Queenstown Centre PBC (Jan 2016) and Wakatipu Basin Public Transport Network PBC (March 2016) along with several previous projects.

The transport programme business case has identified the following problem statements and investment objectives.

Problem 1: The significant growth in residents, visitors and vehicles, leads to increasing trip unreliability and worsening customer experience across the network.

Investment Objective 1: To improve network performance for private vehicles, public transport and cycling

KPIs:

1. Reduce the proportion of single occupant vehicles into the Queenstown Town Centre by 20% by 2025/2045.
2. Increase the number of people moved (aggregated for all modes) along the State Highway 6 and 6a corridors by 30% by 2025/2045.
3. Improve the travel time reliability for general traffic by 2025/2045 with 15th to 85th percentile PM peak travel time being no worse than 5 minutes for key journeys on State Highway 6 and 6a.

¹⁸ Note that there is a draft Long Term Plan 2018-2028 currently out for consultation which will supersede this, discussed further below.

4. Improve travel time reliability for public transport with at least 80% of peak period bus services in the Wakatipu Basin operating within 5 minutes of scheduled departure times by 2025.

Problem Statement 2: Car dominance and associated congestion is affecting the liveability and attractiveness of the area.

Investment Objective 2: Improved liveability and visitor experience.

KPIs:

1. Improve/maintain residents' liveability with at least 75% satisfied with their transport experience in Queenstown by 2025/2045.
2. Improve/maintain visitor experience with at least 75% satisfied with their transport experience in Queenstown by 2025/2045.

This Detailed Business Case serves to deliver to the identified investment objectives and benefits of that programme. The Ladies Mile development corridor is considered a good strategic fit with the overall network improvements planned by the PBC. The recommended PBC programme is shown in Figure 8 below.

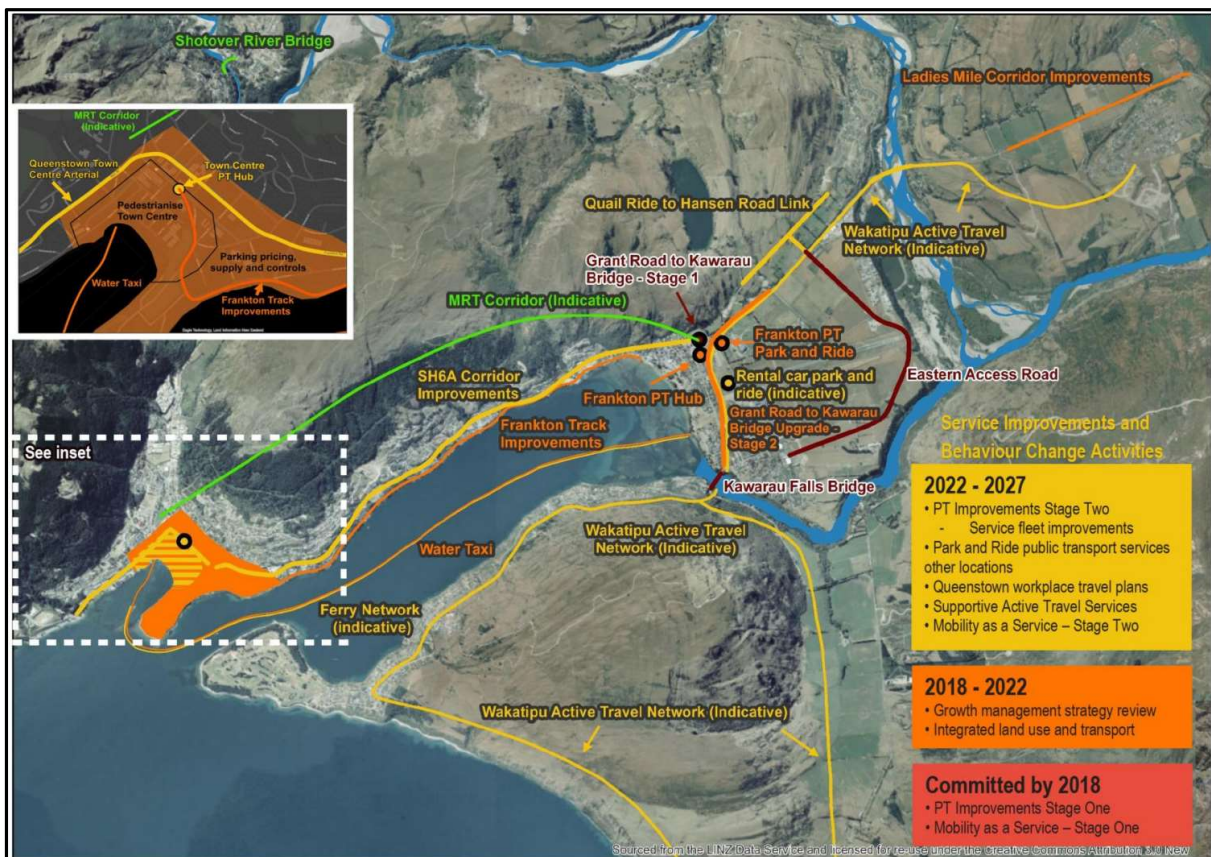


Figure 8: Recommended programme for delivery by 2040 (from NZTA, Queenstown Integrated Transport Programme Business Case, June 2017)

Otago Southland Regional Land Transport Plans (RLTP) 2015-2021 (and proposed variations (Dec 2017) currently out for consultation)

The long-term goal is a transport system in Otago and Southland that provides adequately for mobility, economic activity and productivity while minimising road trauma.

The RLTP outlines the top priority projects proposed for 2018-2021, two that relate to this DBC are shown in Table 5 below. Inclusion in the RLTP demonstrates alignment and ensures that NZTA funding is available for these projects.

Table 5: RLTP top priority projects relating to Ladies Mile

| Priority Project | Description and reason for priority |
|---|--|
| SH6 Ladies Mile Corridor Improvements | <p>The project focus is delivering the Queenstown integrated transport business case, to meet the economic and population growth challenges of this area, to respond to changing mobility user demands and to improve network performance, liveability and visitor experience.</p> <p>Capacity and safety issues related to Howards Drive, which is the only access to the Lake Hayes Estate residential development. Residential development from Stalker Road, Lower Shotover Road and Tucker Beach Road require corridor and access improvements. Further population growth predicted for the area.</p> <p>This project is part of the Queenstown integrated transport business case. Benefits network performance - reduced congestion and improved efficiency of existing corridor - also safety and regional development. Enables greater customer voice and modality shifts.</p> <p>The project is inter-regionally significant. This project is located on the inter-regional journey between Christchurch and Queenstown. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.</p> |
| HIF projects, Ladies Mile & Quail Rise South | <p>The proposed Ladies Mile residential development is located east of Frankton along both sides of Ladies Mile (SH6), between the Shotover River and Lake Hayes. Access improvement from SH6.</p> <p>This project is aligned with the Queenstown integrated transport business case. Benefits network performance and capability, and regional development and connectivity.</p> |

3.3.3 National Policy Statement (NPS), Strategies and Funds

NPS – Urban Development Capacity

A key objective of the NPS – Urban Development Capacity is that the short-term development capacity must be feasible, zoned and serviced with development infrastructure. This current project will assist QLDC in meeting its obligations by providing infrastructure to enable development of 1,100 dwellings in Ladies Mile within the next 10 years, being 36% of the 10-year target for QLDC.

Housing Infrastructure Fund (HIF)

The Housing Infrastructure Fund (HIF) aims to accelerate the short and medium-term supply of new housing where it's most needed. QLDC is eligible for funding assistance due to being in a high growth area. QLDC is facing funding constraints and will need to rely on borrowing to deliver the substantial capital programme included in their Ten-Year Plan¹⁹. The growth portion of the Capital Programme will be largely funded by development contributions in the long run but must be funded primarily by debt in the first instance. For Ladies Mile, the infrastructure is to support dwellings in a greenfield situation. This will enable developers to construct 1,100 mixed density residential units at Ladies Mile.

Housing Infrastructure Fund
One-off contestable fund which councils in high-growth areas can apply to for funding to bring forward the transport and water infrastructure required for new housing.

¹⁹ Taken from QLDC Ten-Year Plan 2018-2028 draft consultation document

4 The Need for Investment

4.1 Problems and Opportunities

As outlined in the strategic context Queenstown is facing challenges caused by high growth. The rate of growth has exceeded historic forecasts and Queenstown is struggling to keep up with housing demand. The logic of the problem is summarised below:

Problem: High growth (higher than historic forecasts)

Consequence: Housing shortage (consequence/evident by affordability/high house prices)

Solution: Prepare more land for development – aiming for more houses faster

Existing constraint: Funding for infrastructure

Opportunities: HIF loan - QLDC identified the following areas where housing development could be accelerated with the help of the HIF loan: Quail Rise South, Kingston and Ladies Mile. This business case relates to Ladies Mile only. At Ladies Mile the HIF loan will be used to provide infrastructure that will unlock developable land for 1,100 residential units.

4.2 Investment Logic Map (ILM)

QLDC have prepared an ILM for meeting district-wide housing demand with an appropriate housing supply. This ILM demonstrates the agreed problems, benefits, strategic responses and solutions for the three HIF projects in Queenstown Lakes district. This integrated approach ensures that these projects can each focus on the key benefits for the district, which are as follows:

- Improved housing affordability (both rental and ownership).
- Efficient and effective housing supply.

The response to this situation is to enable more houses sooner through the following actions:

- Funding support to remove infrastructure constraints, which enables the delivery of the required infrastructure where there is currently none (Kingston, Quail Rise South and Ladies Mile).
- Committing to a common approach between QLDC and developers.
- Putting enabling policy/plans in place including:
 - SHA Lead Policy
 - Proposed District Plan.

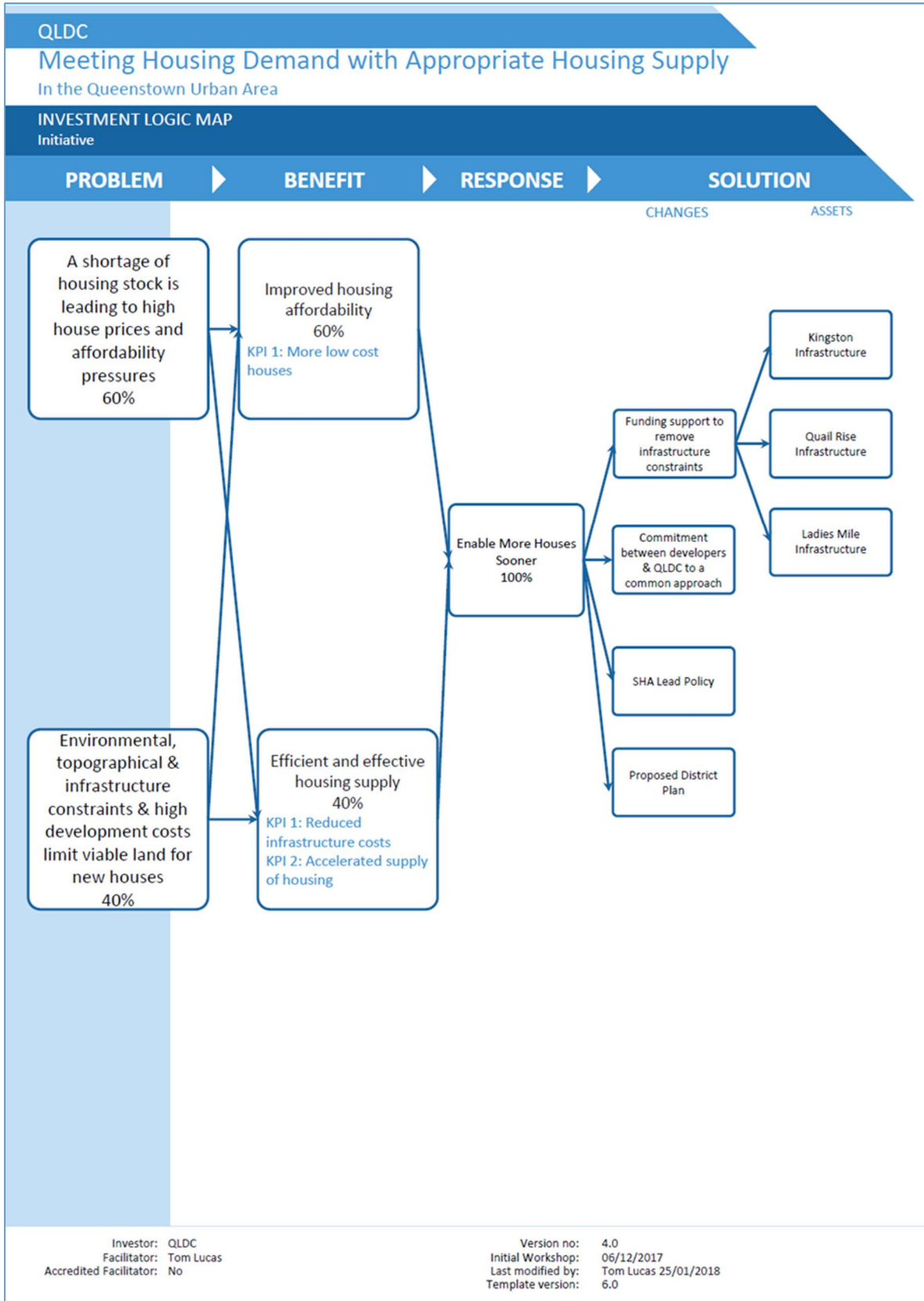


Figure 9: Investment Logic Map for the Queenstown Lakes HIF projects

4.3 Benefits Map

QLDC have prepared a Benefits Map for meeting housing demand with appropriate housing supply. Similar to the ILM, QLDC is using an integrated approach to identify and manage benefits across its three HIF projects. Benefits management will be discussed further in the Management Case and QLDC will continue monitoring and managing the project benefits as part of a wider Benefits Management Framework.

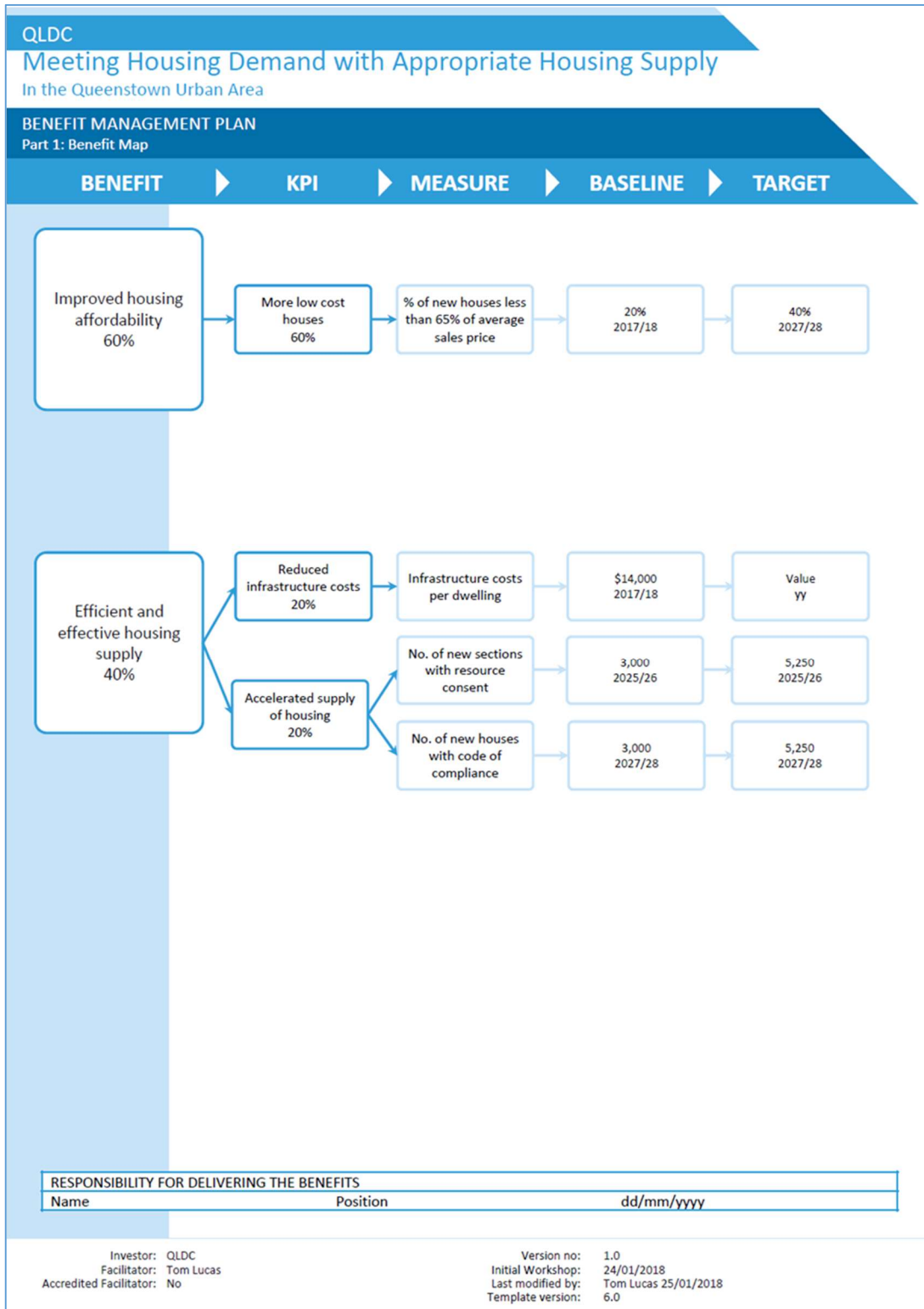


Figure 10: Benefits Map for QLDC HIF projects

4.4 Investment Objectives and Key Performance Indicators (KPIs)

The investment objectives and KPIs for Ladies Mile have evolved as the business case has progressed. Investigations since the IBC highlighted the need to incorporate housing affordability. The updates are summarised below in Table 6:

Table 6: Evolution of investment objectives and KPIs for Ladies Mile business cases

| | IBC Stage | DBC Stage |
|------------------------------|--|--|
| Investment Objectives | 1. Efficient infrastructure that enables housing development 2. To increase the supply of developable land (effectiveness). | 1. Improved housing affordability 2. Efficient and effective housing supply |
| Analysis Method | Long list of all options. Assessed against: <ul style="list-style-type: none"> strategic objectives critical success factors. Cost and yield analysis. | Multi criteria analysis (MCA) of short listed options. Assessed against: <ul style="list-style-type: none"> strategic objectives critical success factors business needs (more houses sooner and from QLDC Business Case Outcomes Framework and Queenstown Integrated Transport Programme Business Case) risks |
| KPIs | KPI 1: Efficiency - Total infrastructure spend per dwelling KPI 2: Yield - The number of dwellings expected to be built as a proportion of projected demand. | More low-cost houses Reduced infrastructure costs. Accelerated supply of housing. |

For the DBC the investment objectives for Ladies Mile have been developed based on the ILM benefits. These objectives are outlined in Table 7, with each objective targeted against an expected performance outcome that is measured by a Key Performance Indicator and tied to an expected level of benefit.

Table 7: Investment Objectives

| Investments Objective | 1. Improved housing affordability | 2. Efficient and effective housing supply |
|--|--|---|
| Investment Objective Summary | Developments with lower cost housing are encouraged and enabled. | The cost of land development infrastructure by dwelling equivalent is reduced. Increase the supply of housing at a faster rate. |
| Existing Arrangement at Ladies Mile | The market is not providing a variety of house types. | There is currently no road access into the development area. The site is adjacent to 3 waters schemes, but infrastructure extensions and upgrades will be required for the development. The land is currently zoned rural but QLDC has opened up the area for Special Housing Expressions of Interest. It is located across the road |

| Investments Objective | 1. Improved housing affordability | 2. Efficient and effective housing supply |
|--|---|---|
| | | from Lake Hayes Estate and Shotover Country developments. It is on a public transport route. |
| Benefits | With the use of the HIF funding to build infrastructure, the residential development of Ladies Mile will enable more low-cost housing. More houses on the market should bring prices down. | With the use of the HIF funding to build a roundabout and 3 Waters infrastructure, the residential development of Ladies Mile will be enabled. It will be a mixed density residential development in an appropriate location. |
| KPI | More low-cost houses. | Reduced infrastructure costs. Accelerated supply of housing. |
| Expected Evidence (note these are district wide measures that Ladies Mile is contributing to) | 40% of new houses in Ladies Mile that are less than 65% of average sales price by 2027/28. | Infrastructure costs per dwelling (improved from 2017/18 baseline of \$14,000 ²⁰) Number of new sections with resource consent (baseline of 3000 by 2025/26 to target 5250 by 2025/26) Number of new houses with code of compliance (baseline of 3000 by 2027/28 to target 5250 by 2027/28) Construction of infrastructure by 2020 at Ladies Mile. |

4.5 Benefits of this proposal to encourage more houses faster

The direct benefit for the community from the proposal is more houses in a shorter timeframe, in the right place:

- Focuses growth closer to jobs and existing facilities -minimizing journeys on the existing corridors, maximising their effective capacity. It will also encourage the uptake of alternative modes of travel.
- Increases the viability of public transport options through proximity to existing corridors.
- Increases supply of housing at a faster rate.
- More supply of housing options for residents leading to more affordable houses and an increase of accommodation options for workers, both permanent and seasonal. It is considered that forty percent of the houses built will be lower-cost housing as defined by the HIF criteria. The economic and social benefits of more affordable housing, and the costs are anticipated to be substantial.
- Area has already been identified as suitable for SHAs through QLDCs Lead Policy.

Co-benefits to QLDC and NZTA include:

- The new roundabout will provide improved safety for existing residents when exiting/entering Lake Hayes Estate through the SH6 and Howards Drive intersection.
- Ladies Mile is located within walking/cycling distance of the new Shotover Primary School.
- Helps QLDC to meet NPS-UDC regulatory requirements for urban development capacity (refer to Table 8 below).

²⁰ \$14,000 is Queenstown's average Development Contribution for transportation and 3 waters (taken from the QLDC Policy on Development Contributions and Financial Contributions)

- Economic benefits to surrounding areas through greater population base. More workers and more active participants in the economy.
- Could provide for a local shopping area to create more opportunity for economic growth and reduce the need to travel.

The expected housing outcome is presented below in Table 8.

Table 8: Contribution to Development Capacity

| | 2017/18 - 2019/20 (1-3 years) | 2020/21 - 2027/28 (3-10 years) | 2028/29 - 2047/48 (Up to 30yrs) |
|--|---|---|------------------------------------|
| Territorial development capacity targets required to meet the NPS-UDC | 1,800 | 3,000 | 6,000 |
| Ladies Miles contribution to NPS-UDC targets | 75 (first sections ready for housing) 4% of requirement | 1,100 (if all broader transport interventions have been implemented to satisfy the 450 and 750 trigger points) 37% of requirement | 1,100 18% of requirement |

5 Risks and Issues

Every development project includes uncertainty over what will happen. The uncertainty – each assumption or best guess – reduces our chances of project success. We can endeavour to deliver success by managing *risk*.

When something goes wrong – deviates from the plan – it stops being a risk and becomes an *issue* that must be addressed to ensure success. Issues are those conditions that are having a negative impact on one's ability to execute the project plan. They can be easily identified because they directly cause slippage and extra work.

There are two simple tools that can be used to manage risks and issues to prevent project failure. One is the *Risk Register*; the other is the *Uncertainty Log*. These are distinct documents that should contain different information and drive different actions and are explained in the following sections.

5.1 Constraints and Assumptions

Constraints are externally imposed boundaries that determine key requirements or limits of the project, and which must be identified and managed from the outset. The stakeholder workshops have identified the key constraints shown in Table 9 below. These parameters have been captured in the Risk Register and will be further evaluated and monitored throughout the life of the project.

Table 9: Key Constraints

| Factor | Constraint |
|---|---|
| Timing | <ul style="list-style-type: none"> To be eligible for HIF Funding there are timing constraints for both the drawdown (quarterly, for up to approximately 7 years) and repayment (10 years from each drawdown). |
| Costs | <ul style="list-style-type: none"> The development needs to be commercially viable within HIF funding limits, QLDC debt limits, and the affordability of Development Contributions and rate increases during repayment. |
| QLDC design requirements/standards | <ul style="list-style-type: none"> The design will need to meet QLDC standards (unless agreed otherwise) as outlined in the following: <ul style="list-style-type: none"> QLDC Land Development and Subdivision Code of Practice (2015) QLDC 3 Waters Technical Level of Service Specifications (currently draft but to be used if it is adopted in time) |
| Transport | <ul style="list-style-type: none"> The existing built capacity of State Highway 6 to the west of Ladies Mile. Development beyond 1,100 units will trigger substantial upgrades to the corridor to maintain levels of service. A number of other transport interventions are required before 1,100 lots is reached²¹. |
| Access | <ul style="list-style-type: none"> West end access not available. No left/right turn on SH6. |

The key constraint is the capacity of the District-wide transport network including district roads, State Highway and the Shotover Bridge, as well as the availability and utilisation of transport systems such as public transport and active travel modes. Ladies Mile and Shotover Bridge are currently subject to heavy traffic because of large residential developments to the east (including Cromwell) and employment centres to the west, and the reliance on private cars. The capacity constraint nearest to the Ladies Mile development is the section of SH6 either side and including the Shotover Bridge, which is restricted to one lane in each direction and necessitates a merge from 2 lanes on the approach from either side. Traffic flow on this section is further

²¹ The Integrated Transport Study outlines incremental interventions required as the 1,100 lot development progresses, these are summarised in Table 12, in Section 5.3 Interfaces and Interdependencies.

reduced by steep gradients on both sides of the bridge and interactions with traffic exiting Tucker Beach Road. The capacity of the bridge has been assessed previously at 1,600v/h.

In the morning peak, queueing currently occurs at the Stalker Road roundabout, the Shotover bridge and the SH6/6A roundabout. Due to the unpredictable nature of the pinch point downstream of Shotover bridge (at the Tucker Beach intersection and uphill merge to Frankton Flats) and the variability in operation, the resultant queue lengths within this section can be significant from day to day, even with similar levels of demand. Analysis of traffic data in January 2018 found that the morning peak hour (07:30-08:30) is critical with a westbound volume of 1,451 vehicles (.). The afternoon peak is less critical with only 1,255 vehicles travelling from west to east, although there is anecdotal evidence to suggest delays in afternoon eastbound traffic in the Frankton area west of the Shotover Bridge, perhaps exacerbated by the addition of Remarkables ski traffic in winter. The eastbound pinch point in the network is the two-to-one lane merge between the Hawthorne Drive roundabout and the Tucker Beach Road intersection. However, the effect of this is to provide an eastbound gate to traffic passing over the bridge, and therefore traffic generally flows in a free-flow state in the Ladies Mile section. For this Detailed Business Case and the evaluation of the Ladies Mile Development for HIF funding, the focus has therefore been to solve the worst-case morning westbound peak traffic congestion.

Table 10: Peak Hour Traffic Volumes on Ladies Mile East of Shotover Bridge (source: Opus Integrated Transport Assessment, Appendix 7d)

| | Morning | Afternoon |
|------------------|---------|-----------|
| Eastbound | 706 | 1,255 |
| Westbound | 1,451 | 998 |

In recent years, the function of the State Highway has evolved from purely providing movement for regional traffic to providing access to the local residential areas. NZTA, as a key stakeholder, require that the movement function of the highway is not jeopardised by favouring local access. The Ladies Mile corridor is geographically constrained by the Shotover and Kawarau rivers, and the mountainous terrain on all sides, restricting possible solutions for capacity upgrades. The wider QLDC district is also subject to significant background traffic growth that is the result of several unpredictable factors, but which has been accelerating in recent years (Figure 11).

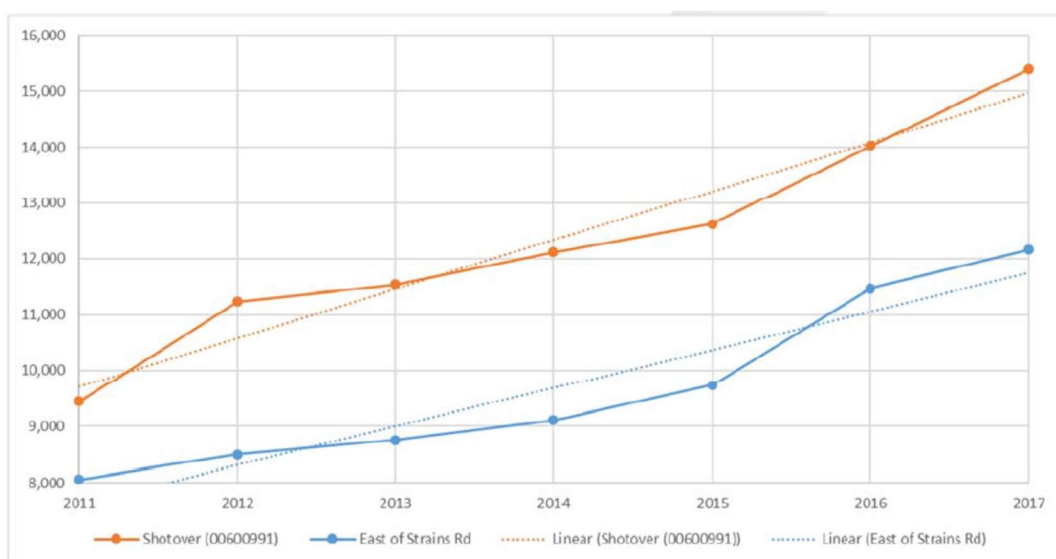


Figure 11: Annual average daily traffic volumes on SH6 to the west (Shotover) and east (Strains Road) of Ladies Mile, 2011-2017.

For this Detailed Business Case, a range of background traffic growth scenarios have been used in the transport model, based on actual average rates seen over the past 2-year, 5-year and 10-year periods as follows:

- Low growth: 3.07% based on 10-year growth rate on SH6, 2007-2017
- Medium growth: 5.69% based on 5-year growth rate on SH6, 2012-2017
- High growth: 9.00% based on 2-year historical growth rate on SH6, 2015-2017

The traffic model prepared by Opus (Appendix 7) notes that there is likely to be a change in commuter patterns following the development of the site, in that the availability of local housing may reduce the number of regional commuters travelling to Queenstown (from the likes of Cromwell). However, measured data suggests that background growth has actually continued despite the completion of various residential developments around Queenstown in recent years such as Lake Hayes Estate and Shotover Country. In addition, recreational traffic makes up a significant amount of the volume observed on SH6, and is not expected to change as a result of the Ladies Mile development.

Figure 12 shows the forecast westbound demand at the Shotover Bridge from local (orange bars) and regional (blue bars) traffic, without the Ladies Mile development. At existing levels, a slight majority of westbound traffic is generated locally. Regional traffic is expected to make up the majority by 2028 under the medium and high growth scenarios. By 2037, even if only 750 houses are completed, there will be 449 vehicle movements into the new Howards Drive roundabout from the local housing areas during the morning peak, compared to 1135 regional vehicles entering from the east (40%). If the required 1,100 lots are completed the local benefit will be even greater.

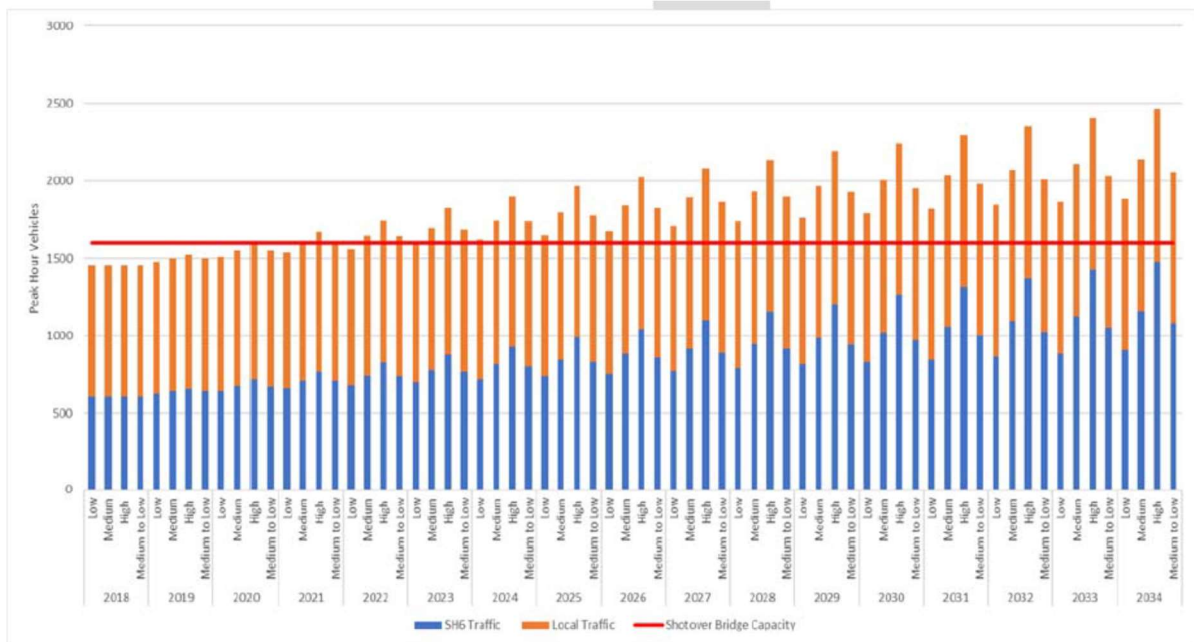


Figure 12: Forecast traffic demand at Shotover Bridge (SH6 and local).

There are also key assumptions upon which the project is based, and which could impact upon the successful delivery of housing in Ladies Mile were they to change materially. These are identified in Table 11 below and are captured in the Risk Register for monitoring throughout the project life.

Table 11: Key Assumptions

| Factor | Assumption |
|---|--|
| Funding | <ul style="list-style-type: none"> The lending conditions do not change through the life of the funding arrangement. |
| Developer's Commitment | <ul style="list-style-type: none"> Developers will proceed with the development of residential sections in alignment with the intent of HIF project as per the Developer Agreement (once finalised). Provision of enabling infrastructure will encourage other landowners and developers to commence developments within the desired timeframes. If the areas included in the preferred programme do not start to develop it is assumed that adjacent landowners in the masterplan area who can access the HIF infrastructure will start to develop. Developed sections will be immediately on-sold to a purchaser who intends to build a dwelling (and not hold the land vacant on speculation). No other developers outside the Ladies Mile Masterplan area will come along and build sooner (and consequently consume the bridge capacity). |
| Construction Industry Capacity | <ul style="list-style-type: none"> Builders and their suppliers have the capacity to commence and complete the construction of residential dwellings in a timely manner. |
| Residential Appeal | <ul style="list-style-type: none"> That completed residential dwellings are priced at a value that enables the normally-resident population of the District to purchase or rent. That completed residential dwellings are occupied predominantly by a normally-resident population, rather than left unoccupied as holiday homes or utilised as short-term holiday accommodation. |
| SHA Lead Policy deadline extension | <ul style="list-style-type: none"> That the deadline for establishing SHAs under the SHA Lead Policy, within which the Ladies Mile Masterplan sits, will be extended beyond the current Sept 2019 deadline²². |

5.2 Constraints to full Masterplan Development

There are several constraints limiting the full development of the Ladies Mile master plan (2185 houses), namely infrastructure capacity and developer readiness. Each stage of develop will require new 3 waters infrastructure to reach the sites and to ensure adequate levels of service are available, this is business as usual. The 3 waters servicing for the 1,100 lots will not require any unplanned upgrades to the water and wastewater headworks, which are already contained in QLDC's 10-year plan.

The SHA Lead Policy includes a 'pause point' at 1,100 lots, this is the threshold at which point a major transport intervention will be required such as a new bridge or mass rapid transit (MRT). The Integrated Transport Study highlights that prior to this there are incremental steps of other interventions required such as increased bus services, park and ride, bus priority lanes and traffic diversions. These interventions need to be implemented interdependently to the HIF project. Table 12, in section 5.3 shows the interventions required at each growth trigger point.

The HIF project focuses on the most developer ready sites. Glenpanel is ready for development once the enabling bulk infrastructure is available. Areas A & B are considered the next most ready to develop sites due to their proximity to the existing developments at Lake Hayes Estates, Shotover Country and the Queenstown Country Club. Council has not received any formal request from these landowners for subdivision at this stage, but they have highlighted their desire during informal discussions. It is noteworthy that the western-most block of vacant land is currently on the market, and Council has had a query from a known developer querying the level of development that could be acceptable.

²² Note that the original deadline was extended by 3 years in 2016 and it assumed that this will occur again.

5.3 Interfaces and Interdependencies

Key dependencies on the success of the case for change (and the management thereof) include:

- Depends on NZTA access approval off SH6 for Glenpanel subdivision.
- Dependent on the willingness of developers (of areas A and B) to implement the preferred option. Council has had some discussions with these landowners but is yet to receive any subdivision plans.
- Supply of housing and infrastructure is dependent on Ministerial approval of a SHA and district plan re-zoning in accordance with the Masterplan.
- Water supply capacity is increased in time to meet additional demand.

The development of headworks infrastructure at Ladies Mile will link and interface with other issues and proposals in the District upon which the success of this project may be dependent. Additional risk could be introduced should some uncertain future action or development under the control of other parties not play out as forecast, so these interfaces and interdependencies are also captured in the Risk Register.

Interfaces include:

- Agreement with the local community about construction traffic movements.
- Contractor and QLDC staff and resource commitments to other community developments, which offer both an opportunity to share resources and a challenge to ensure sufficient resources are available.
- Developer of Glenpanel provides land for location and access of water reservoirs.

Interdependencies include:

- Borefield expansion at Shotover Country.
- House builders have capacity and willingness to commit.
- Transport interventions including the provision of Public Transport (bus) and Park and Ride are required to achieve the proposed number of dwellings. Refer to Table 12 for details of the interdependent transport interventions required as development progresses. A programme of the steps required is included in Section 11 the Management Case.
- Speed limit reduced to 80 kph along Ladies Mile to optimize roundabout size.

Table 12: Interdependent transport interventions

| # of Lots | Public Transport required | Bus Service | Park and Ride for inbound traffic |
|-------------------------|---|--|-----------------------------------|
| 450 (y.2023) | 15% uptake from Ladies Mile 25% uptake from Shotover Country / Lake Hayes Estate | Bus priority on SH6 30-min Ladies Mile 10-min Shotover Country and Lake Hayes Estate | 0% |
| 750 (y.2025) | 15% uptake from Ladies Mile 25% uptake from Shotover Country / Lake Hayes Estate | West-bound transit lane 10-min frequency all locations | 20% turn-in 200 spaces |
| 1100 (y.2028) | 40% uptake from Ladies Mile 40% uptake from Shotover Country / Lake Hayes Estate | Double-decker bus | 20% turn-in |
| 2185 (y.2037) | 50% uptake from Ladies Mile 50% uptake from Shotover Country / Lake Hayes Estate | Low-level Mass Rapid Transit | 40% turn-in |

5.4 Risk Management

The risk register is a means of capturing risks that we want to monitor over the life of the project so that action can be taken before the risk has a negative (or perhaps positive) impact on the project. These are conditions that will not be explicitly worked into the execution plan but cannot be allowed to 'slip under the radar' to create more significant issues later.

A Risk Workshop was held on 29 November 2017 with key stakeholders including QLDC and developer's representatives from Glenpanel in attendance. The highest-level risks identified in that workshop are presented in Table 14 below, showing the controls to be implemented to treat and reduce the risks. The full Risk Register is presented in Appendix 9. The risk register will be a 'live' document throughout the project life and shall be updated and reviewed regularly by the project team. Its purpose shall be to:

- Identify the main risks
- Quantify and appraise the main risks
- Apportion and transfer risks
- Mitigate and manage risks over the entire project life cycle.

The cost of risk has been estimated in the preliminary engineering phase through a multi-point probability analysis to establish a 'risk contingency' which has been added to the costs of the development to provide the full expected value of the preferred option, based on the likelihood of a risk occurring and the size of the financial impact. Details of this risk contingency is presented as part of the cost estimate in Appendix 6. As the design proceeds, more specific risks related to the design and build phases will be identified and managed to reduce the more general risk placeholders. The ongoing management and transfer of risk is further discussed in Section 10.8.

5.4.1 Uncertainty Log

Uncertainty is a lack of complete certainty. In uncertainty, the outcome of any event is completely unknown, and it cannot be measured or guessed because there is no background information on the event. Table 13 presents the key uncertainties that the project team has identified that they may not be in a position to resolve but must work within the context of. The project team will attempt to neutralise these uncertainties by liaising with the key stakeholders and monitoring the drivers.

Uncertainties are classified as:

- Near certain: The outcome will happen or there is high probability that it will happen.
- More than likely: The outcome is likely to happen but there is some uncertainty.
- Reasonably foreseeable: The outcome may happen, but there is significant uncertainty.
- Hypothetical: There is considerable uncertainty whether the outcome will happen.

Table 13: Uncertainty Log

| Factor | Uncertainty | Impact on Programme |
|--|---|--|
| Factors affecting demand for housing | | |
| Slow-down in regional, national or international growth. | Hypothetical in short term (1-3 years), reasonably foreseeable in long-term (10 years). | Medium |
| Growth in traffic volume on SH6 exceeds forecasts due to other drivers (tourism, other residential) | Reasonably foreseeable | Low impact (high certainty) for up to 450 dwellings. Low certainty (potential high impact) beyond 450. |
| Developer or Builder mis-reads market expectation and/or supplies unappealing product. | Hypothetical | High |
| Commuters preference remains with competing townships | Reasonably foreseeable | Low |

| Factor | Uncertainty | Impact on Programme |
|---|------------------------|---------------------|
| Uptake at Ladies Mile is delayed because competing developer/s get to market first | Hypothetical | Medium |
| Factors affecting supply of housing | | |
| Building contractors committed to other projects elsewhere | Reasonably foreseeable | High |
| Materials supply chain cannot deliver volume | Hypothetical | Medium |
| Other landowners in Ladies Mile Masterplan zone do not wish to subdivide, or delay decision. | Reasonably foreseeable | Medium |
| Factors affecting cost | | |
| Contractors charge premium pricing. | Reasonably foreseeable | Low |
| Global commodity price increases. | Hypothetical | Low |
| Factors affecting success of public transport interventions | | |
| Public chooses not to change travel mode | Reasonably foreseeable | High |
| Public transport interventions are not economically viable | Possible | High |

Table 14: Highest project risks before treatment

| Risk Register - Ladies Mile Housing Infrastructure Fund - v1.5 | | | | | | | | | | | | | | | |
|--|---|---|----------------|---|---------------------------|--------------------|--|------------------------------------|---|--|----------|---------------------------|--------------------|--|------------------------------------|
| STAGE 1 - RISK IDENTIFICATION | | | | STAGE 2 - ANALYSIS OF UNCONTROLLED RISK | | | | | STAGE 3 - RISK CONTROLS AND ANALYSIS OF CONTROLLED RISK | | | | | STAGE 4 - RISK CLASS | |
| RISK DETAILS | | | | Uncontrolled Risk Score | | | | | Risk Controls | | | | | Controlled Risk | |
| Risk ID | Risk Title <i>There is a chance that...</i> | Risk Causes <i>Because...</i> | Risk Owner | Consequences <i>Resulting in...</i> | Consequence Score (1 - 5) | Likelihood (1 - 5) | Level of risk 1 (very low) to 25 (very high) | Risk Class (Very Low to Very High) | Risk Control Options | Selected Control of the options identified | From one | Consequence Score (1 - 5) | Likelihood (1 - 5) | Level of risk 1 (very low) to 25 (very high) | Risk Class (Very Low to Very High) |
| R1 | We cannot deliver the project infrastructure. | There are not enough internal or external resources to undertake design and construction of infrastructure (for ALL upcoming work in the District within Council and private sector). | MBIE | Failure to deliver sections and houses on schedule. | 3 | 3 | 15 | Very High | Treat | Undertake early contractor engagement and develop Contracting Plan to enable broad supply base. | | 3 | 2 | 10 | High |
| R2 | There may be dispute about responsibility to produce houses. | MBIE's expectation for house production may differ from the developer's business model to deliver sections. | MBIE | MBIE or Developer may withdraw, or project experiences significant delay while dispute is resolved. | 3 | 3 | 15 | Very High | Treat | Arrange Developer Agreement | | 3 | 2 | 10 | High |
| R3 | We cannot deliver house construction. | There are not enough internal or external resources to build houses (for ALL upcoming work in the District). | QLDC | Failure to deliver houses on schedule. | 3 | 4 | 20 | Very High | Treat | Undertake early contractor engagement and develop Contracting Plan to enable broad supply base. | | 3 | 2 | 10 | High |
| R8 | Funding is not secured. | Central government (MBIE) and QLDC do not reach funding agreement. | MBIE | Developer may withdraw. | 3 | 4 | 20 | Very High | Treat | Arrange MBIE/QLDC Agreement. | | 3 | 2 | 10 | High |
| R10 | Developer withdraws. | Council and Developer cannot agree terms. | QLDC | Development does not proceed. | 3 | 4 | 20 | Very High | Treat | Arrange Developer Agreement. | | 3 | 2 | 10 | High |
| R38 | We cannot obtain NZTA designations in time. | The procedure for design, assessment and approval may take too long. | Developer/QLDC | Additional time and cost. | 3 | 3 | 15 | Very High | Treat | Commence detailed design and engagement with NZTA as priority. | | 3 | 2 | 10 | High |
| R40 | Detailed Business Case may not be submitted on time. | Required inputs may be delayed, including: - Engineer not yet engaged for 3 waters - NZTA approval of yield not yet confirmed - NZTA approval of roundabout location not yet confirmed - Developer's agreement with neighbour for land purchase not yet confirmed - Development Agreement between QLDC/KVL not confirmed | QLDC | Additional time and cost. | 4 | 3 | 20 | Very High | Treat | Include assumptions in draft Business Case, and update when final data is received. | | 4 | 3 | 12 | High |
| R30 | Patronage of public transport does not achieve the required level | Adequate systems and facilities are not operational at the required time to meet the needs of development: - 20% by first development - 25% by 450 houses - 27% by 750 houses - 29% by 1,100 houses | QLDC | Unacceptable traffic delays on SH6 | 3 | 4 | 20 | Very High | Treat | Develop MOU between ORC, QLDC, NZTA to develop, implement, monitor and control trigger points for public transport interventions | | 4 | 3 | 12 | High |
| R41 | Integrated transport outcomes could dictate unforeseen physical constraints to any proposed infrastructure. | There has been no integrated land transport planning | QLDC | Additional time and cost, or reduction in benefit. | 3 | 4 | 20 | Very High | Treat | Undertake integrated transport planning and incorporate into concept design. | | 3 | 2 | 10 | High |
| R43 | Utility services (e.g. power, telecom, gas) cannot serve the new development | Capacity or reach is insufficient. | QLDC | Additional time and cost to expand utility capacity of reach. | 3 | 3 | 15 | Very High | Treat | Involve utility providers in preliminary design discussions. | | 3 | 2 | 10 | High |
| R31 | Road access to the subdivision cannot be agreed in time. | Some landowners (particularly at west end, and pet lodge) not yet agreed location and size of access with NZTA and QLDC. | QLDC | Delay to commencement / additional cost | 3 | 4 | 20 | Very High | Treat | Progress Developers Agreements and evaluate road/intersection locations. | | 4 | 2 | 8 | Moderate |
| R39 | The SH6 roundabout cannot be located at Howards Drive intersection. | The owner of the Pet Lodge will not sell their land. | Developer/QLDC | The roundabout being relocated to the west, and Howards Drive realigned to suit. | 3 | 3 | 15 | Very High | Treat | Commence negotiation with the owner of the Pet Lodge as priority. Shift roundabout to the west into land currently owned by QCC. | | 3 | 1 | 3 | Moderate |

6 Stakeholders

6.1 Stakeholders and their interests or responsibilities

QLDC is responsible for the planning, development, operation and maintenance of 3 waters infrastructure throughout Queenstown Lakes District, in consultation with Otago Regional Council as the authority responsible for issuing water abstraction and disposal consents for public and private systems under the Resource Management Act.

The primary public agency and private sector partners involved in the planning and implementation of the provision of the HIF-funded infrastructure at Ladies Mile are QLDC, MBIE, NZTA, the landowners and the developers.

- **QLDC** is the primary project partner charged with leading the development of this business case. As the Ladies Mile development falls within the QLDC territorial boundary, the way QLDC manages and invests in roading and 3-waters infrastructure is critical.
- **MBIE** as the central government provider of interest-free loans (the Housing Infrastructure Fund) to local government to enable the construction of infrastructure to achieve the production of more houses sooner. With a national focus, MBIE sees a well-functioning housing market is important for both economic performance and social wellbeing. MBIE is working in a number of areas to enhance affordability, social housing and the quality of the built environment.
- **NZTA** as the central government provider of state highways and public land transport infrastructure. NZTA offers Funding Assistance Rates (FARs) to councils to appropriately share the cost of the national land transport network where national or regional benefits can be derived from the investment.
- **The Landowners** are displayed in Figure 13 below. The landowners of the proposed Glenpanel SHA, Tylden and Stalker/Bennett, are keen to develop their land as part of the HIF project. There are 19 other landowners within the overall Ladies Mile Masterplan area and Council has not yet been formally approached by any to initiate development. However, the Burdis property is currently on the market and a known developer has contacted Council as a potential purchaser enquiring about the development capability of the land.
- **The Developers** are critical to the provision of more houses sooner. At Ladies Mile, the developers of the proposed Glenpanel SHA, Glenpanel Development Ltd and Maryhill Ltd, are currently preparing a SHA EOI, this will form the first stage of the HIF project. These developers will undertake the construction and sale of residential sections and enable the subsequent construction of dwellings by private purchasers.
- **Local residents and business owners** who will be impacted by or have an interest in the proposed development.
- **Otago Regional Council** who issues and administers the water extraction and wastewater disposal consents that will be required (*note*: stormwater discharge is currently a permitted activity under the Regional Plan).

Figure 13 below highlights how the land within the Indicative Masterplan SHA Boundary is shared between various owners. A larger copy is shown in Appendix 5.

Other parties engaged by QLDC to administer the business case process in a consulting role include:

- **Harrison Grierson Limited** is engaged by QLDC as project manager to secure the MBIE funding by controlling the business case process.
- **Rationale Limited** is engaged by QLDC to prepare the business case.

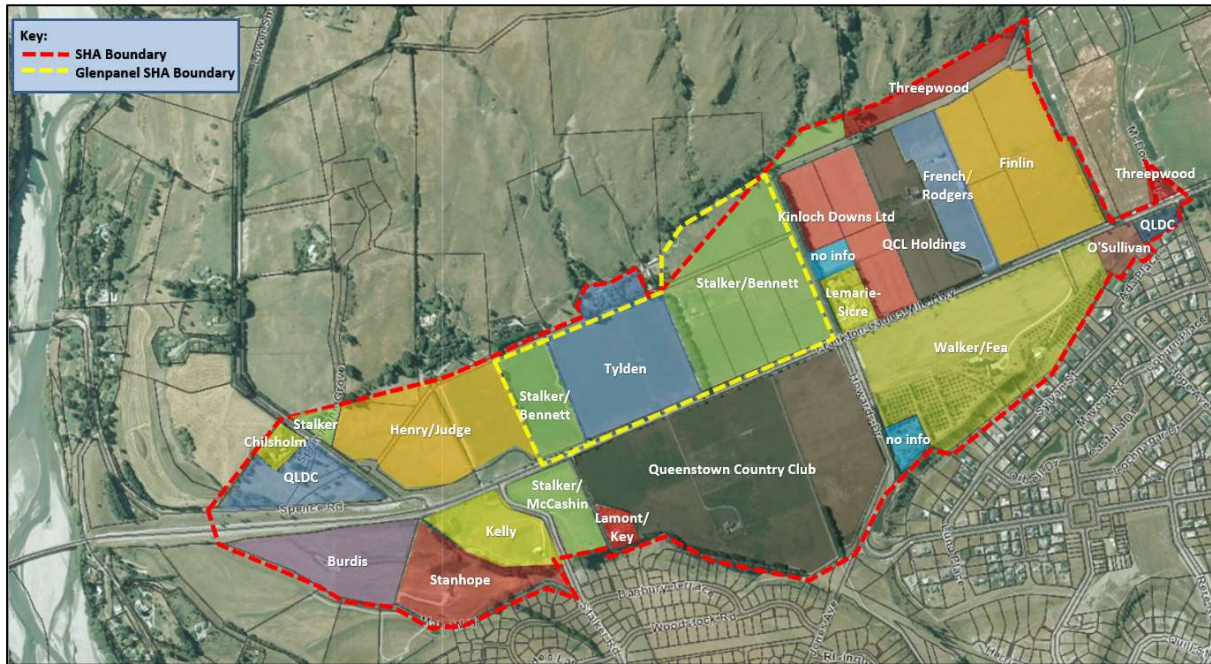


Figure 13: Landowners in the Ladies Mile Indicative Masterplan Area

6.1.1 Recent engagement activities

Following on from the engagement profiled in the IBC, QLDC has led a series of targeted engagements with stakeholders to progress the project. A summary of the consultative activities (to date) is provided below.

Key activities revolved around changes to the SHA Lead Policy and the QLDC 10-Year Plan. Community feedback was sought on the potential to develop a section of the Ladies Mile as part of the SHA Lead Policy. The council received 310 responses to the proposal. Public consultation on the QLDC 2018-2028 Ten-Year Plan received 586 submissions, discussion around the HIF developments was included in the plan.

Table 15: Recent stakeholder engagement snapshot

| Stakeholder | Primary method of engagement | Parties involved in the engagement process |
|---|---|---|
| Glenpanel Development Ltd and Maryhill Ltd – development partners of Glenpanel SHA | <ul style="list-style-type: none"> Technical engineering meetings Risk workshop Finance workshop Commercial & management Workshop Developer Agreement | <ul style="list-style-type: none"> Glenpanel Development Ltd and Marhill Ltd. QLDC Rationale Ltd NZTA |
| Local Residents and Business Operators | <ul style="list-style-type: none"> 2017 QLDC sought public feedback on proposal to amend its current SHA Lead Policy to incorporate the Ladies Mile Area. 2018 QLDC 10 Year Plan 2018-2028 engagement activities included requests for feedback and drop in sessions. | <ul style="list-style-type: none"> QLDC |
| Otago Regional Council | <ul style="list-style-type: none"> Meetings seeking clarification of Public Transport requirements. | <ul style="list-style-type: none"> QLDC |

| Stakeholder | Primary method of engagement | Parties involved in the engagement process |
|--------------------------------|---|--|
| Neighbouring landowners | Meetings with owner of Pet Lodge to discuss relocation. | QLDC |
| NZTA | Meetings regarding planned transport infrastructure development and associated changes (including Public Transport, Park and Ride, Active Travel, and other interventions such as diversions and mass-rapid transit). | QLDC |

7 Alternative options assessment to deliver more houses faster

7.1 Previous Options Analysis (Indicative Business Case)

The Indicative Business Case (IBC) (March 2017) assessed a wide range of potential options²³ against the investment objectives²⁴ and critical success factors²⁵. On the basis of this analysis, a shortlist of options was determined, and indicative costs and benefits compared to confirm the preferred way forward. In addition to this, an analysis of development costs and yields for various zoning densities was performed to confirm the preferred way forward. The areas considered at the IBC stage are shown in Figure 14 below.



Figure 14: Areas considered for development at the IBC stage

More information has become available in the year since the completion of the IBC resulting in changes to the shortlist of options and their analysis. The following subsections summarise:

- key IBC outcomes
- key updates since the IBC.

7.1.1 Key IBC outcomes - preferred way forward (and the more ambitious option)

Key aspects of the IBC preferred way forward included:

- Medium density residential development of Areas A, B and D2 on Ladies Mile/SH6.
- Estimated 1,100 residential units over 5 years (15.3% of projected demand over 30 years).

²³ This is the longlist of options. Based on the Business Case Options Framework this includes the following five dimensions: scope, service solution service delivery, service implementation and funding

²⁴ The investment objectives are outlined in section 4.4

²⁵ The proposal specific critical success factors are outlined in the IBC. In summary they include: strategic fit and business needs, potential value for money, supplier capacity and capability, potential affordability, and potential achievability.

- Transport infrastructure included a new roundabout at Howards Drive/SH6, pedestrian underpasses across SH6 and public transport infrastructure.
- 3-Waters infrastructure reticulated jointly by the developer and QLDC from the existing schemes of Shotover Country and Lake Hayes to the property boundary.
- \$15.7M was sought from Housing Infrastructure Fund to deliver this option. Total investment per residential unit is \$14.3k.
- Area D2 (Glenpanel) has greater developer interest than other areas considered.
- Most likely to be achievable against the 5 critical success factors and addresses the underlying problem statements.
- Brings forward developable land capacity and infrastructure spend by 10 years (currently not planned in current LTP)
- It was considered that an additional 1,100 residential units would impact on the capacity of SH6 at the Shotover Bridge and within Frankton, particularly during peaks. However, it is below the assumed threshold of 1,500 units stated by the NZTA at the time. The IBC recommended modelling of level of service impacts be included in the detailed business case.

7.1.2 Key information updates/changes affecting IBC preferred way forward

The table below summarises what has changed since the completion of the IBC and what this means for the preferred way forward.



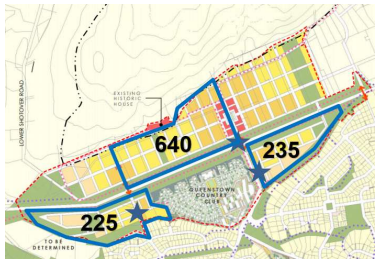
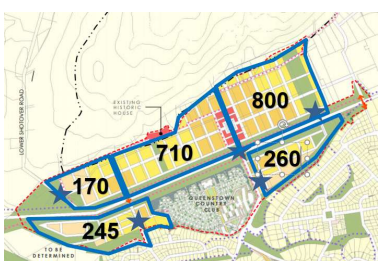
| Information update | Affect on preferred way forward |
|---|--|
| <p>Developer readiness – the developers of Glenpanel are ready to apply for development as a SHA, with the intention of starting development immediately. No other developers have formally approached council yet.</p> | <p>The preferred option now includes staging to reflect the readiness of developers.</p> |
| <p>Ladies Mile added to Category 2 of QLDCs Special Housing Area Lead Policy – this means that development in the Ladies Mile area can be applied for as a Special Housing Area, which allows for a streamlined consenting process. Expressions of Interest (EOI) are to be generally consistent with the following documents included in the Lead Policy: the Ladies Mile Indicative Master Plan, Indicative Landscape Strategy and development objectives. The initial development at Ladies Mile is also capped at 1,100 residents.</p> | <p>Provides structure to the development of Ladies Mile corridor through the indicative masterplan and other guidance documents. It provides an alternative approach for resource consent applications, allowing development to proceed at a faster rate.</p> <p>The yields from each site are more defined. Glenpanel will increase their yield to suit.</p> |
| <p>Highway capacity – during the IBC stage it was believed that the limiting factor for development at Ladies Mile was the remaining capacity of the Shotover Bridge. NZTA had advised that any development greater than 1,500 dwellings would trigger the requirement to upgrade the Shotover Bridge.</p> <p>Ladies Mile HIF Integrated Transport Assessment – further analysis shows that the bridge cannot sustain 1,500 more dwellings without significant interventions to get people out of cars. Modelling currently shows that 750 lots can be developed before the mode shift required is higher than can be reasonable expected. The next step would be</p> | <p>There are a number of interdependent transport interventions that need to occur as development proceeds. These trigger points are captured in this DBC.</p> <p>To be economically viable the preferred way forward is still 1,100 lots. It relies on a very high uptake of public transport (40%). It is assumed that the higher intensity of development will help the network by increasing the public transport level of service provided.</p> |

| Information update | Affect on preferred way forward |
|---|--|
| a major intervention such as mass rapid transit which would be prohibitively expensive. | |
| Concept designs for infrastructure – at the IBC stage the costings were very high level. At the DBC stage cost estimates are based on concept/preliminary designs. The Glenpanel developers have implemented an alternative cost saving stormwater solution. | The cost estimates are more accurate resulting in some infrastructure costs having increased and others decreased. |

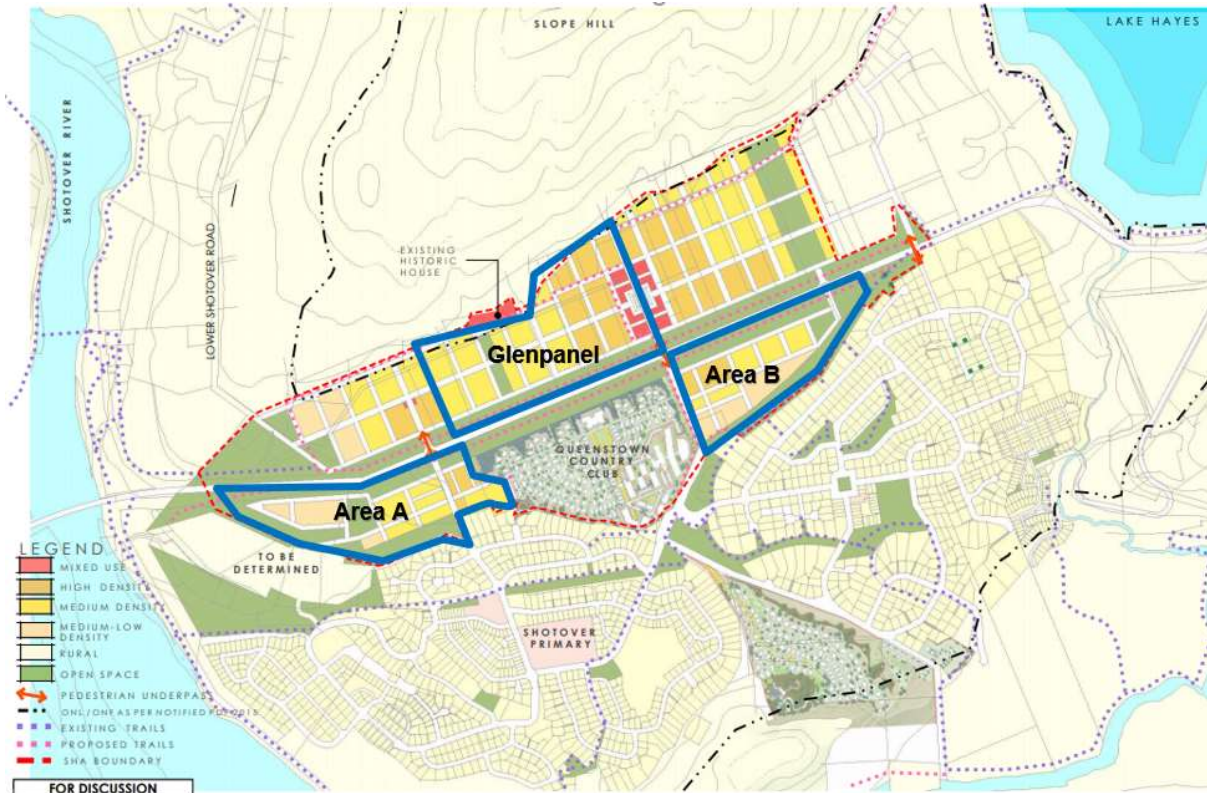
7.2 Shortlisted options

At the Detailed Business Case stage, the recommended shortlist of programmes for further assessment in the Multi-Criteria Analysis (MCA) is as shown in Table 16 below (refer also to Figure 15 below).

Table 16: Shortlist of Programmes (blue stars indicate access points)

| Details | Plan | Comment |
|---|---|---|
| <p>Programme 1: Do minimum Glenpanel proceeds (450 lots)</p> |  | <p>Proposed yield as indicated by developer. This option is developer ready once bulk infrastructure is available to site. The yield is too low to achieve the objectives of the project.</p> |
| <p>Programme 2: Less ambitious Glenpanel + Areas A & B (750 lots)</p> |  | <p>This is an intermediate option that can be achieved with up to 25% uptake of public transport but does not require major traffic interventions. However, the yield is too low to achieve the objectives of the project.</p> |
| <p>Programme 3: Preferred Glenpanel + Areas A & B (1,100 lots)</p> |  | <p>The preferred option at the IBC stage and the target for the DBC. Relies on 40% uptake of public transport and 20% of park and ride to avoid major traffic interventions. The yield from this programme reaches the 'pause point' within the SHA Lead Policy²⁶.</p> |
| <p>Programme 4: More ambitious Full Master Plan Area (2,185 lots)</p> |  | <p>Included for completeness. This programme can only be achieved with major transport interventions occurring concurrently (eg new bridge or MRT). This significant transport investment could further enable and encourage higher development intensity.</p> |

²⁶ The SHA Lead Policy 'pause point' is to allow a transport review and possible implementation of a major transport intervention.



2. INDICATIVE MASTER PLAN

Figure 15: Plan of shortlisted programme areas (full masterplan includes full area inside SHA boundary (red dash))

Details about interventions within each programme are included in Appendix 3. The HIF project has a maximum budget and a yield target, both set at the IBC stage. Traffic modelling for the Integrated Transport Study has confirmed state highway constraints will require interventions to enable development sooner than previously thought. The first three programmes assume progressively higher levels of uptake of public transport and active travel. Programme 4 will require a major transport intervention and is included for completeness because it will be further evaluated in the future once the Ladies Mile Integrated Transport Study has been completed.

The following interventions are common to all programmes unless noted otherwise:

- New roundabout at the intersection of SH6 and Howards Drive.
- One pair of bus stops on SH6, location to be confirmed
- SH6 pedestrian/cycleway underpass near bus stops
- Footpaths along SH6 to underpass and bus stops
- New water supply reservoirs (2 x 1000m³), with associated rising main from the Shotover Country bore field and falling main to service the proposed developments (Note “do minimum” option includes only one reservoir).
- New wastewater rising main along SH6 from Howards Drive intersection, connecting to existing infrastructure at the Shotover Bridge.
- Wastewater pumpstations and rising mains for Areas A and B to connect to the existing network (Not included in the “do minimum” option).
- Stormwater will require the installation of two new pipelines; one connecting to the Queenstown Country Club stormwater discharge pipe and one discharging to the Shotover River south of the SH6 bridge. (The second pipeline is not included in the “do minimum” option)

7.2.1 Alternative Access Options

Options considered for accessing the Glenpanel development are summarised in Table 17 below. The preferred option for access to Glenpanel is from a new roundabout at Howards Drive, various options for the positioning of the new roundabout were considered to avoid impacting the Pet Lodge located on the north-east corner of the roundabout. The new roundabout would also benefit Lakes Hayes Estate and Shotover Country residents. Access to Areas A and B are straight forward, with access from Stalker Road and Howards Drive, respectively.

Table 17: Access options considered for Glenpanel

| Access Option | Comment |
|--|---|
| From SH6 midway between Stalker Road and Howards Drive (existing tree lined driveway) - either a roundabout or left in / left out. | X Ruled out by NZTA because it is too close to the other intersections. |
| Modify Stalker Rd roundabout for access. | X Only suitable if Henry land becomes available. |
| Second access point from Lower Shotover Road – using Spence paper road. | X Only suitable if Henry land becomes available. |
| New roundabout at the intersection of SH6 and Howards Drive. | ✓ This is the preferred option. It provides access to the Glenpanel development whilst improving access for Lake Hayes Estate and Area B. |
| New traffic lights at the intersection of SH6 and Howards Drive. | X Ruled out by NZTA for safety reasons and because of no intention to reduce speed below 80km/hr. |

7.3 Analysis of Shortlisted Options

This sub-section includes summaries of the cost, benefits and multi criteria analysis. The preferred programme is outlined in more detail in the following section.

7.3.1 Estimated costs and benefits summary

Table 18 below compares estimated costs and benefits of each shortlisted option. In summary, the options enable an estimated 450 - 2185 dwelling yield. The more ambitious option would include the additional construction of a major transport intervention, which is cost prohibitive for this project but will require addressing in the future.

Table 18: Estimated costs and benefits, by shortlist option.

| \$millions | Shortlisted Programmes | | | |
|---|------------------------|---------------------|----------------|---------------------|
| | 1 Do Minimum | 2 Less Ambitious | 3 Preferred | 4 More Ambitious |
| Total capital costs (HIF funded) | \$19.2M | \$25.3M | \$25.3M | \$115M+ |
| Yield – residential units | 450 | 750 | 1100 | 2185 (+?) |
| Cost/ Residential Unit | \$42,761 | \$33,693 | \$22,972 | \$52,840 (-?) |
| Yield as a % of demand 30 years²⁷ | 8% | 13% | 18% | 36% |

²⁷ The territorial development capacity target required to meet the NPS-UDC is 6,000 for 30 years (refer to section 4.5 for more details)

7.3.2 Multi-criteria assessment - Option analysis and initial RMA screen

The multi criteria assessment demonstrates the balance of factors that are considered to demonstrate that the selected shortlisted programmes deliver against the investment objectives and critical success factors, provides a value for money solution and is affordable. This assessment highlighted that all the programmes performed well in some areas but had different strengths and weaknesses. The full assessment can be found in Appendix 3, showing all criteria included in the MCA screen including preliminary assessment of environmental effects.

Table 19: Summary of multi criteria assessment rankings (refer to the appendices for the full MCA)

| | Programme | | | |
|------------------------|-----------------|---------------------|----------------|---------------------|
| | 1 Do Minimum | 2 Less Ambitious | 3 Preferred | 4 More Ambitious |
| Cost Estimate | 1 | 2 | 2 | 4 |
| Objectives | 4 | 3 | 2 | 1 |
| Benefits | 4 | 3 | 2 | 1 |
| Risks | 2 | 2 | 1 | 4 |
| Overall Ranking | 4 | 2 | 1 | 3 |

7.4 Summary of analysis

The key objective for this project is more houses sooner. To the Council's knowledge only one developer is ready to start right now, that is the Glenpanel SHA. It is assumed that the developments at sites A and B will follow suit once infrastructure is available to the sites. The preferred programme delivers well across all the criteria and fits within the current planning constraints²⁸. Whilst the more ambitious programme delivers the best results against the objectives and benefits, the programme is not achievable at this point in time due to the major transport interventions²⁹ that would be required. The do minimum and less ambitious programmes do not deliver enough houses to meet the objectives nor do they provide value for money.

The preferred project is programme 3, which provides the maximum number of new dwellings within the existing SHA planning constraints. The preferred programme also delivers well across all the MCA criteria and provides the best cost per dwelling.

²⁸ Constraints being the SHA Lead Policy pause point at 1,100 dwellings.

²⁹ Major transport interventions will be required to alleviate capacity issues on State Highway 6, potentially in the order of \$35m.

8 The Preferred Project

8.1 Scope/description

The assessment in the previous section confirmed that the preferred project is Programme 3. This will provide transport and 3waters infrastructure to enable the mixed density residential development of 1,100 lots at Glenpanel plus Areas A and B, at a cost per dwelling of \$22,972. It is uneconomic to develop fewer lots, with the cost per dwelling rising to \$42,761 if only 450 lots are completed. The greater density of 1,100 is therefore the minimum requirement for affordability and is achievable as evidenced by the analysis performed by Opus and contained in Appendix 7e. This aligns with the guidance from the Governance Group.

The development will be staged to work in with developer readiness. The project will include the following interventions:

STAGE 1:

- Transport:
 - New roundabout (SH6/Howards Road)
 - One pair of bus stops and bus shelters on SH6 (location to be confirmed).
 - SH6 pedestrian/cycleway underpass near bus stops.
 - Footpaths along SH6 to underpass and bus stops.
- 3 Waters:
 - New water supply reservoirs (2 x 1000m³), with associated rising main from the Shotover Country bore field and falling main to service the proposed developments.
 - New wastewater rising main along SH6 from Howards Drive intersection, connecting to existing infrastructure at the Shotover Bridge.
 - Stormwater pipe connecting to the Queenstown Country Club stormwater discharge pipe

STAGE 2:

- 3 Waters:
 - Wastewater pumpstations and rising mains for Areas A and B to connect to the existing network.
 - Stormwater pipe discharging to the Shotover River south of the SH6 bridge.

We note that in Glenpanel's initial 2016 SHA EOI the proposal was to direct runoff from undeveloped areas around the developed areas via grass swales and discharge to ground by soakage, replicating the pre-development conditions (Appendix 7f, p19). The runoff from the hillside catchments above the subject site had already had open cutoff drains constructed by the landowner to manage the runoff flow, and this management method was expected to continue post-development (Appendix 7g, p9). In their peer review of Opus' engineering, Stantec failed to locate this cut-off drain during their site inspection, and therefore included the entire hill catchment in their required size of the single stormwater discharge pipe to the Kawarau River (Appendix 7h, Section 7.2). While the capacity in the existing pipeline is 1.5 m³/sec, Stantec identified a potential flow of 2.6 m³/sec from the entire site in a 1-in-100 year ARI rain event. However, Stantec also acknowledged that their analysis was preliminary and does not account for attenuation on site, or diversion off-site via existing channels, which will be required. Analysis by Opus identified that a significant portion of the hill slope area follows natural existing overland flow paths to the east (Figure 16), and that only 1.2 m³/sec will reach the existing pipeline (within the 1.5m³/sec capacity), and providing that the development uses methods to soak and/or attenuate their post-development flows, the pipe in Howards Drive will remain sufficient. We have captured this risk in the risk register, to ensure that it is developed during the design process. If additional stormwater infrastructure is required it could be installed at developer cost as part of the Developer Agreement.

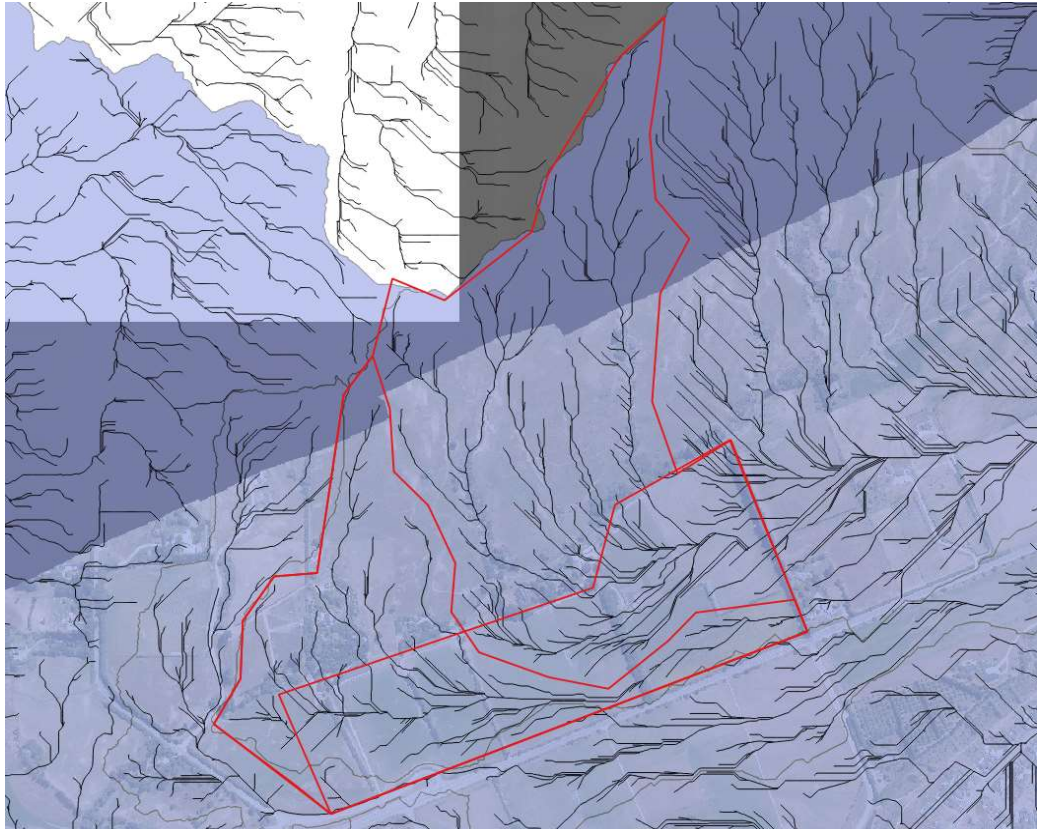


Figure 16: Catchments of the Glenpanel land and upper hill slopes, showing two predominant flow paths towards the east.

Figure 17 and Figure 18 below show the layout of the proposed three waters infrastructure and roundabout for the preferred programme. Enlarged versions are included in Appendix 7.

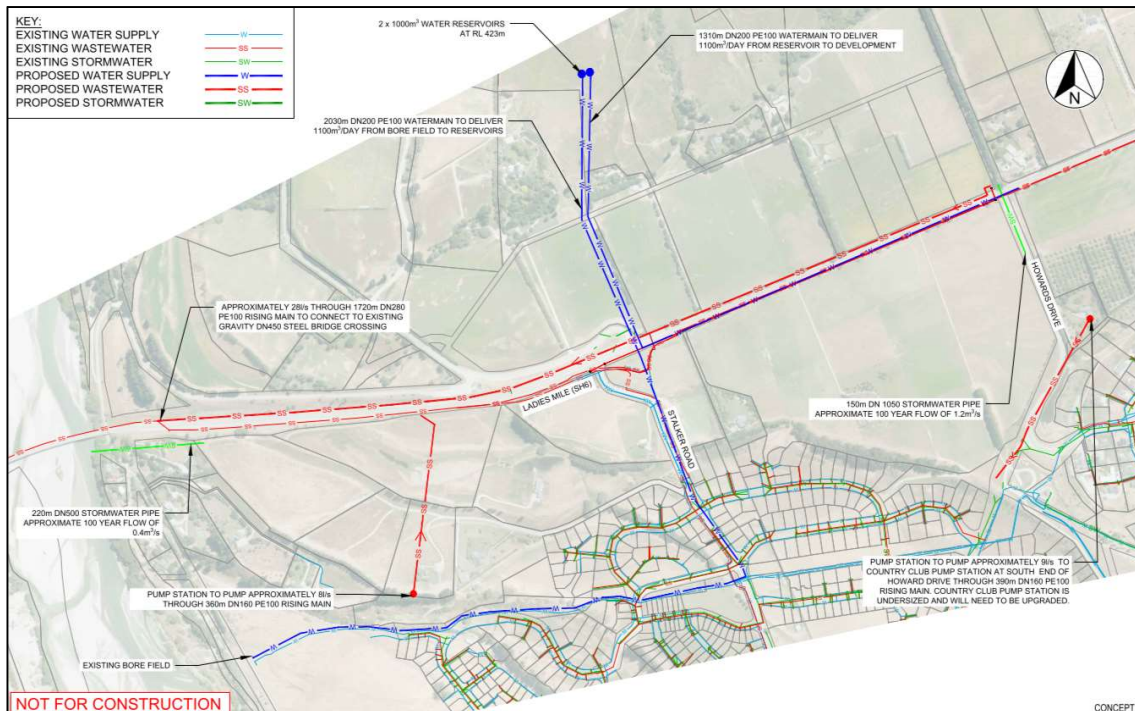


Figure 17: Proposed 3 waters infrastructure



Figure 18: Proposed roundabout on the intersection of SH6 and Howards Drive (note that the final positioning at this location is to be confirmed)

8.2 Assessment

8.2.1 Outcomes

Expected outcomes of the preferred project are summarised in Table 20 below.

Table 20: Outcomes of the preferred project

| Investment Objective | Expected Outcome |
|--|--|
| 1. Improved housing affordability | The new infrastructure will enable 1,100 new mixed-density houses in a short time frame, reducing house price pressure and encouraging affordability. It will contribute to achieving the district wide KPI target of 40% of new houses priced at less than 65% of average sales price by 2027/28. |
| 2. Efficient and effective housing supply | The preferred option provides infrastructure at a cost of \$22,970 per dwelling (compared to the target 2017/18 baseline of \$14,000). The preferred option accelerates housing supply for the 1,100 new houses by removing the existing barriers to development. This will provide a significant contribution to the target of 5,250 by 2027/28. |

8.2.2 Implementability

The preferred project is highly implementable because:

- Design and construction will be straight forward
- QLDC will have a private Developer Agreement in place (currently under negotiation)
- All the works are on either public land, land owned by the developer or on land with agreements in place.

8.2.3 Wider project impacts

Wider project impacts include:

- Provides an affordable housing option for the district.
- Provides improved access for Lake Hayes Estate (roundabout and underpasses).
- Provides an increased number and density of residents, thereby improving the economic performance of public transport.
- The water storage and wastewater pipelines will provide further resilience to the council network.

8.3 Economic analysis including sensitivity analysis

A sensitivity analysis of the MCA was carried out with the weightings on the following criteria:

- Achievement of objectives
- Capital Cost
- Business Needs/ Considerations
- Risks

For the MCA analysis each criterion was equally weighted at 25% each. For the sensitivity analysis each criterion was doubled whilst the others were equally weighted to observe the effect of the rankings of the options. The results are summarised in Table 21 below.

Table 21: Sensitivity Analysis Rankings

| Sensitivity analysis | Programme | | | |
|-------------------------|-----------------|---------------------|----------------|---------------------|
| | 1 Do minimum | 2 Less Ambitious | 3 Preferred | 4 More Ambitious |
| Equal Weightings | 4 | 2 | 1 | 3 |
| 50% Cost | 3 | 2 | 1 | 4 |
| 50% Objectives | 4 | 3 | 1 | 2 |
| 50% Needs | 4 | 3 | 1 | 2 |
| 50% Risks | 3 | 2 | 1 | 4 |

This analysis shows the preferred project (Programme 3) is consistently ranked number 1. Rankings of the other programmes are generally sensitive to each criteria. The do minimum option is consistently ranked 3 or 4, and the less ambitious ranked 2 or 3. The more ambitious option, however, wavers between 2 and 4 ranking depending on the weighting.

8.4 Funding Assistance Justification

Ladies Mile corridor improvements were identified in the Queenstown Integrated Transport Programme Business Case (QITPBC) and have been incorporated into the Otago Southland Regional Land Transport Plan (OSRLTP). Park and ride public transport services were also recommended in the QITPBC.

8.4.1 Transport Economic Analysis

The Ladies Mile HIF Integrated Transport Assessment included a transport economic analysis. Programmes 1 and 2 were assessed to ascertain the relative benefits of implementing the proposed transport strategy, the BCRs were 2.17 and 2.75 respectively. Traffic demand modelling indicated that programmes 3 and 4 would require a step change in public transport intervention and while programmes 3 and 4 were not assessed for BCR their outcomes are expected to be significantly greater due to the higher density.

8.4.2 Queenstown Integrated Transport Programme Business Case (QITPBC)

The QITPBC identified the Ladies Mile Corridor Improvements as a key project, as indicated in the diagram below. QITPBC goes on to describe the programme option as SH6 corridor and access improvements for residential traffic from Howards Drive, Stalker Road, Lower Shotover and Tucker Beach Road. Being identified at this level indicates its importance to the efficient and effective operation of the wider transport network. Hence funding from the NLTF for the roundabout at the local-road (51%) FAR would be expected.

Park and ride public transport services is also recommended in the QITPBC. This included the provision of parking facilities at appropriate locations (such as Frankton, Ladies Mile, Jacks Point, Arrowtown/Arrow Jn) to enable greater use of public transport. Identification at this level shows the importance of public transport at Ladies Mile in the overall integrated network programme and funding from the NLTF at the 51% FAR rate would be expected for the bus stops and underpass.

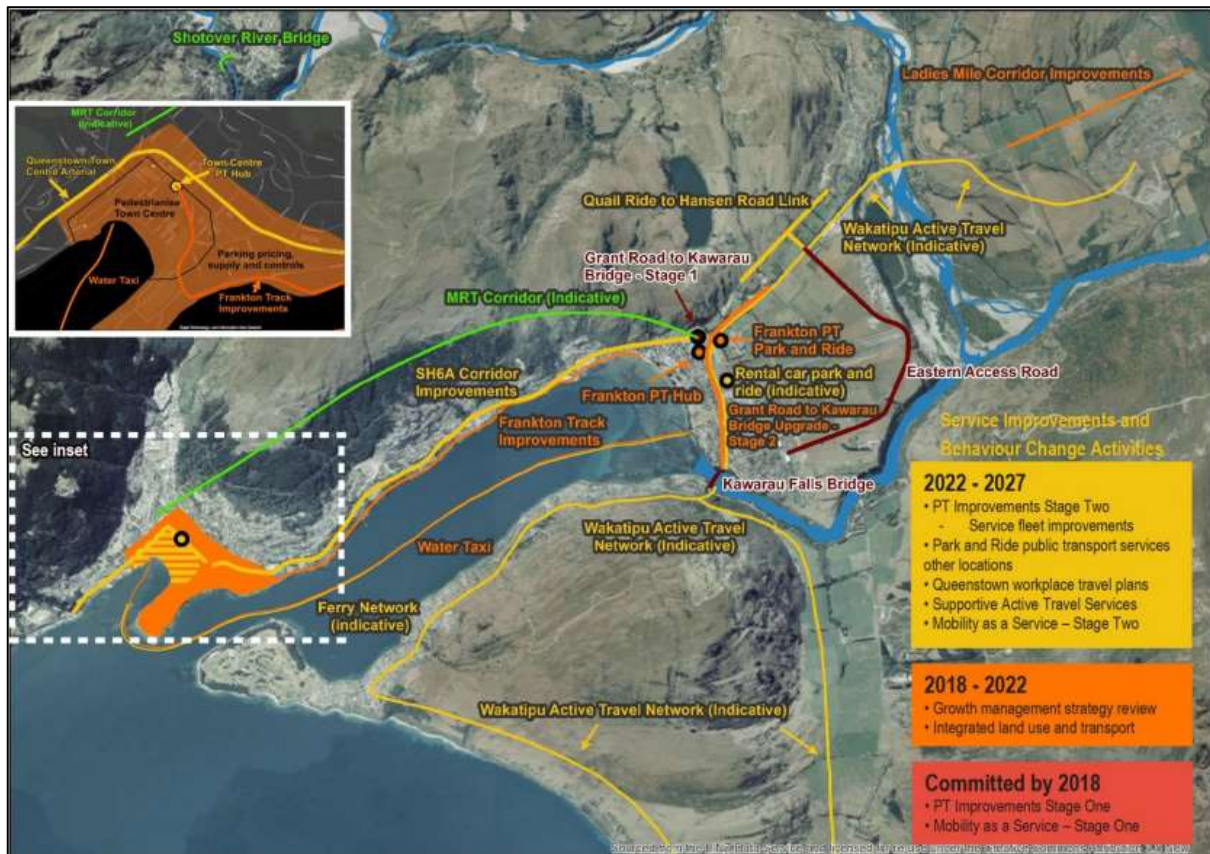


Figure 19: Queenstown Integrated Transport Programme Business Case

8.4.3 Otago Southland Regional Land Transport Plan (OSRLTP)

SH6 Ladies Mile Corridor Improvements are included in the OSRLTP. The project's focus is delivering the QITPBC, to meet the economic and population growth challenges of this area, to respond to changing mobility user demands and to improve network performance, liveability and visitor experience.

The project includes corridor and access improvements to address capacity and safety issues for the residential developments adjacent to the corridor, including Howards Drive. Further population growth predicted for the area.

Benefits include network performance - reduced congestion and improved efficiency of existing corridor - also safety and regional development. Enables greater customer voice and modality shifts.

The project is inter-regionally significant. This project is located on the inter-regional journey between Christchurch and Queenstown. These improvements will improve the appeal of the area to visitors. Queenstown is an important part of national marketing of New Zealand to tourists.

Funding from the NLTF for the roundabout at the local-road (51%) FAR is recommended.

8.4.4 Wider benefits

51% FAR funding of the SH6 / Howards Drive roundabout is further justified by the wider benefits identified during modelling³⁰, this includes:

- The existing intersections (in its current layout) reaches capacity (for side road) before 2025 without development of Ladies Mile, in both AM and PM peak periods.
- A four leg 40m island diameter roundabout, with minor widening on south approach can accommodate forecast demand in all development scenarios beyond 2030. However, if access to a park and ride site (or similar facility) is provided in addition at this location, further widening may be necessary.
- The benefit of the roundabout for existing residents exiting from the south of Ladies Mile at Howards Drive (Lake Hayes Estate and Shotover Country) is captured in Table 22 taken from the Integrated Transport Assessment. In summary, the level of service is improved from 'F' to 'A', and peak delays are reduced from 202 seconds to 7 seconds.

Table 22: SIDRA Modelling Summary of Howards Drive Intersection

| programme | Time of day | Performance | | | | | | | | |
|---------------------|-------------|---|---------|-----------|---|---------|-----------|--------------------------|---------|-----------|
| | | Do Minimum | | | | | | Do Something | | |
| | | Howards Drive South Priority Intersection | | | Howards Drive North Priority Intersection | | | Howards Drive Roundabout | | |
| | | LOS | Max DoS | Delay (s) | LOS | Max DoS | Delay (s) | LOS | Max DoS | Delay (s) |
| Programme 1 2023 | AM | F | 0.89 | 11 | F | 9.06 | 758 | A | 0.30 | 7 |
| | PM | F | 1.50 | 15 | F | 3.18 | 105 | A | 0.40 | 7 |
| Reference Case 2025 | AM | F | 1.58 | 69 | F | 19.64 | 1596 | A | 0.34 | 7 |
| | PM | F | 3.48 | 54 | F | 5.25 | 186 | A | 0.38 | 8 |
| Programme 2 2028 | AM | F | 3.18 | 202 | F | 49.5 | 5095 | A | 0.34 | 7 |
| | PM | F | 7.67 | 181 | F | 17.8 | 886 | A | 0.40 | 8 |

8.5 Transport Interventions to Achieve Benefit

To deliver 1,100 houses and achieve the desired benefit, several initiatives will need to be implemented beyond the immediate supply of infrastructure to enable development. As outlined in the Preferred Case, a roundabout, underpass, bus stops and 3-waters infrastructure will be required prior to the completion of the first lots. This portion of work is to be HIF funded.

As the number of developed lots increases and more residents move in to the subdivision, the intensity of public transport and alternative transport measures will need to be increased. An indicative list showing the extent and timing of these interventions is presented in Table 23 below, which highlights the need to continually monitor and review the impact of development on the roading network at the key Trigger Points. We emphasise that these additional transport interventions are not to be funded by the HIF, but instead must be determined by MOU agreement between NZTA, ORC and QLDC (and any other party that may be necessary or desirable).

It is critical to prepare this MOU between the parties as a priority, to establish an Action Plan for development for the wider transport network and systems. These longer term and larger scale interventions are particularly

³⁰ Taken from Opus modelling memos included in Appendix 7.

aspirational and will be challenging to achieve. Significant collaboration between the parties will be required to determine in greater detail the requirements prior to implementation as part of an overall public transport strategy. This current Detailed Business Case does not have sufficient time, scope or resources to undertake this evaluation.

The outcome of this collaboration, however, will be of significant benefit to development in the District, with housing concentrated on Ladies Mile rather than scattered in an ad-hoc fashion through the Wakatipu Basin and beyond.

Table 23: Transport intervention steps to implement the preferred programme (1,100 lots)

| Sequence | Action / Intervention | Trigger | Control Mechanism | Funding |
|----------|-----------------------|--|---------------------------------|--------------------------|
| 1 | Prior to first lots | Construct access Roundabout at Howards Drive | DA for Development | DA HIF |
| 2 | Prior to first lots | Construct Bus Stops and Underpass on SH | DA for Development | DA HIF |
| 3 | Prior to first lots | Improve PT Level of Service - Target 20% | DA for Development | MOU ORC |
| 4 | By end of 450th lot | Construct Park & Ride East of Ladies Mile | Design @150. Construct @300. | MOU NZTA |
| 5 | Park & Ride | Complete Improve PT Level of Service - Target 25% | Park & Ride Complete | MOU ORC |
| 6 | By end of 750th lot | Construct Bus Priority Lane (Park & Ride to Shotover Bridge) | Design @450. Construct @600. | MOU QLDC / NZTA |
| 7 | Priority Lane | Complete Improve PT Level of Service - Target 27% | Priority Lane Complete | MOU ORC |
| 8 | By end of 900th lot | Implement Diversion Improvements | Design @750. Construct @825. | MOU QLDC / NZTA |
| 9 | By end of 1,100th lot | Improve PT Level of Service - Target 29% | 900 Lots | MOU ORC |
| 10 | Prior to 1,101st lot | Future PT Infrastructure / Modal Shift | 900 Lots | MOU QLDC / NZTA / ORC |

9 Financial Case to deliver infrastructure projects

9.1 General

The Financial Case will look to develop the financial model to be used for the HIF Ladies Mile project. It will assess the affordability of the proposal, its funding arrangements and technical accounting issues.

9.1.1 Dollar representations

Throughout the financial analysis costs are shown in either 2018 dollars or inflated dollars. The dollar value used is generally stated on each table or figure. 2018 dollars are used for the project delivery costs as they are priced for today's costs. It has also been used to provide a like for like comparison to the IBC and transport related items to fit the NZTA requirements. The drawdown and repayment analysis use inflated dollars to meet the requirements of MBIE.

9.2 Project Delivery Costs

Project construction cost estimates are attached in Appendix 6. These are the expected costs in 2018 dollars. QLDC proposes to manage the contingency across all 3 waters projects to reduce the funding risk since the HIF funding amount is capped.

Table 25 below presents the key infrastructure elements for the overall project. The expected 2018 and inflated costs are used in economic evaluation. Total costs include project property, project development, pre-implementation costs and implementations costs. Details of what is included in each category of the project delivery costs are shown in Table 24 below. The P50 is the base estimate with 30% added contingency to produce the expected project cost.

Table 24: Category breakdown of cost estimate

| Category | Items |
|----------------------------|---|
| Project Property | No land or property required to be purchased. |
| Project Development | Consultancy fees as a % of physical works, client managed costs: internal fees, geotech, archaeology, topographical fees. |
| Pre-Implementation | Consultancy fees and client managed costs as a % of physical works. |
| Implementation | MSQA, consent costs and client managed costs as a % of physical works. |
| Physical Works | Any and all construction works such as earthworks and landscaping. Preliminary and general, overheads and profit. |

Table 25: Expected project delivery costs (2018 \$)

| Item | Description | Base Estimate | Contingency (P ₅₀) | Funding Risk Contingency (P ₉₅) |
|----------|---|---------------------|--------------------------------|---|
| A | Nett Project Property Cost | \$- | \$- | \$- |
| | Project Development Phase | | | |
| | - Consultancy Fees | \$462,417 | \$138,725 | \$- |
| | - Client Managed Costs | \$308,125 | \$92,437 | \$- |
| B | Total Project Development | \$770,541 | \$231,162 | \$- |
| | Pre-implementation Phase | | | |
| | - Consultancy Fees | \$1,076,089 | \$322,827 | \$- |
| | - Client Managed Costs | \$154,139 | \$46,242 | \$- |
| C | Total Pre-implementation | \$1,230,228 | \$369,068 | \$- |
| | Implementation Phase | | | |
| | Implementation Fees | | | |
| | - Consultancy Fees | \$407,603 | \$122,281 | \$- |
| | - Client Managed Costs | \$154,139 | \$46,242 | \$- |
| | - Construction Monitoring Fees | \$154,139 | \$46,242 | \$- |
| | Sub Total Base Implementation Fees | \$715,881 | \$214,764 | \$- |
| | Physical Works | | | |
| 1 | Risks | \$- | \$- | \$- |
| 2 | Earthworks | \$948,445 | \$284,534 | \$- |
| 3 | Tanks and Reservoirs | \$1,248,400 | \$374,520 | \$- |
| 4 | Stormwater Drainage | \$2,109,500 | \$122,850 | \$- |
| 5 | Pavement and Surfacing | \$3,747,784 | \$1,124,335 | \$- |
| 6 | Conveyance Pipelines | \$3,914,150 | \$1,174,245 | \$- |
| 7 | Retaining Walls | \$- | \$- | \$- |
| 8 | Traffic Services | \$1,439,572 | \$431,872 | \$- |
| 9 | Service Relocations | \$295,000 | \$88,500 | \$- |
| 10 | Landscaping | \$208,713 | \$62,614 | \$- |
| 11 | Traffic Management and Temporary Works | \$148,000 | \$44,400 | \$- |
| 12 | Preliminary and General | \$3,054,322 | \$916,297 | \$- |
| 13 | Extraordinary Construction Costs | \$- | \$- | \$- |
| | Sub Total Base Physical works | \$17,113,886 | \$4,624,166 | \$- |
| D | Total for Implementation Phase | \$17,829,767 | \$4,838,930 | \$- |
| E | Project Base Estimate (A+B+C+D) | \$19,830,536 | | |
| F | Contingency (Assessed/Analysed) | (A+B+C+D) | \$5,439,161 | |
| G | Project Expected Estimate (P₅₀) | (E+F) | \$25,269,697 | |
| | Nett Project Property Cost Expected Estimate | | \$- | |
| | Project Development Phase Expected Estimate | | \$1,001,704 | |
| | Pre-implementation Phase Expected Estimate | | \$1,599,296 | |
| | Implementation Phase Expected Estimate | | \$22,668,697 | |

9.2.1 HIF portion

The HIF loan will be used to pay for the growth portion of the project, that is the 1,100 dwellings at the Ladies Mile development. The new water supply infrastructure also benefits the Queenstown Country Club (332 dwellings). The HIF loan will pay only 77% of the water supply infrastructure total cost, the remaining 23% will be covered by the Queenstown Country Club. NZTA FAR funding of 51% will be sought for transport components as they will have wider benefits, this will use a HIF-funded loan to NLTF. The wastewater and stormwater infrastructure will benefit only the new development and is hence funded 100% by the HIF loan. Table 26 below shows the portion of the project using the HIF loan in inflated dollars, including a breakdown for each activity.

Table 26: HIF portion (inflated \$)

| Activity | Total | HIF Funding | HIF as a % of total |
|------------------|----------------|----------------|---------------------|
| 3-Waters | \$13.7m | \$13.0m | 95% |
| Transport | \$12.7m | \$6.2m | 49% |
| TOTAL | \$26.4m | \$19.2m | 73% |

9.2.2 Changes to cost estimate since the IBC

Table 27 below shows the comparison between the cost estimates from the IBC and the DBC stages. The overall project cost at the DBC stage has increased approximately 60% since the IBC stage. Overall, a 30% contingency has been added. Some of the increase since the IBC stage is due to more detailed design and cost estimating during the DBC to include the cost of risks. The total cost for water has increased because it includes a new water reservoir and rising main. The cost of wastewater has increased during detailed design because it includes greater lengths of pipe and some pump stations. The total cost for stormwater has decrease almost 50% because a more economical solution for managing stormwater from Glenpanel has been found. The total transport costs have increased due to more detailed cost estimation and the addition of bus shelters.

Notably, the cost estimate includes \$600,000 for 'iconic' bus shelter/s, which we consider critical to entice residents onto public transport. These bus shelters will be attractive, glass-walled enclosed structures that will provide a safe, comfortable and appealing transit point during both the cold winter and hot summer weather, shielded from the discomforts generated by the considerable traffic movement on the highway.

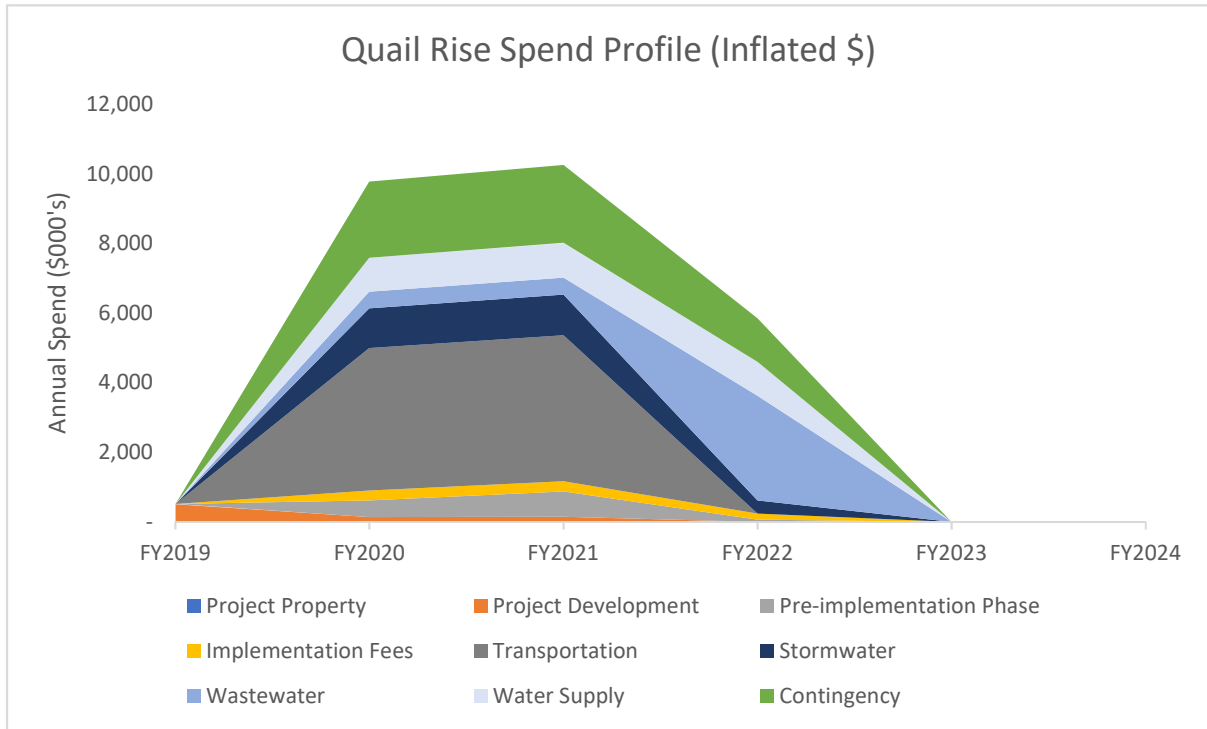
The comparisons between IBC and DBC have been done in 2018 dollars to allow a like for like comparison as the IBC was only conducted in 2018 dollars.

Table 27: IBC and DBC Cost Comparison (2018 \$)

| Activity | IBC | DBC |
|---------------------|----------------|----------------|
| Water Supply | \$2.2m | \$4.0m |
| Wastewater | \$1.2m | \$5.3m |
| Stormwater | \$6.2m | \$3.7m |
| Transport | \$6.1m | \$12.3m |
| Total | \$15.7m | \$25.3m |

9.2.3 Cost breakdown by year

Figure 20 below demonstrates how the delivery costs are expected to breakdown across a four-year horizon. The graph highlights the two main stages of construction. Most of the construction spend occurs in 2020/21, the first house connections will be enabled at the end of the first stage at 2021. The timing of the second stage is 2021 based on the expected interest of other landowners. All the transport infrastructure is expected to be completed in stage 1 at the end of FY2021. This analysis is shown using inflated dollars to match the financial analysis on drawdown and repayments in section 9.6 which follows. Inflated dollars are used from here on unless otherwise stated, to reflect the real costs associated with the project.



| Annual Spend (\$000's) | FY2918 | FY2020 | FY2021 | FY2022 | FY2023 | Total |
|---------------------------------|--------------|----------------|-----------------|----------------|--------|-----------------|
| Project Property | - | - | - | - | - | - |
| Project Development | \$511 | \$131 | \$139 | - | - | \$780 |
| Pre-implementation Phase | - | \$486 | \$734 | \$60 | - | \$1,281 |
| Implementation Fees | - | \$285 | \$293 | \$170 | - | \$748 |
| 3-Waters | - | \$2,588 | \$2,654 | \$4,365 | - | \$9,606 |
| Transport | - | \$4,094 | \$4,198 | - | - | \$8,291 |
| Contingency | - | \$2,189 | \$2,245 | \$1,250 | - | \$5,683 |
| Total | \$511 | \$9,772 | \$10,262 | \$5,846 | - | \$26,390 |

Figure 20: Ladies Mile HIF spend profile

9.3 Ongoing maintenance and operations costs

Post-implementation costs allow for ongoing maintenance and operations costs. Given the small scale of the Ladies Mile project compared to the overall size of the existing QLDC infrastructure network, maintenance costs have no significant effect on the total maintenance costs across the district. QLDC currently maintains

approximately 500km of roads and 857³¹ km of water and wastewater pipes. The development includes small wastewater pump stations connecting to existing gravity pipes to the Shotover wastewater treatment plant. O&M for the wastewater pump stations is considered to be negligible. Similarly, the increase in costs at the water and wastewater treatment plants is negligible.

9.4 Overall affordability

QLDC has used the initial costings to test the affordability of the programme as part of the Council's Long-Term Plan budget forecast. Given the significant cost of the full QLDC masterplan programme and the other infrastructure investments the Council is required to undertake in the coming decades (such as water treatment plants and arterial road upgrades), QLDC would approach its debt ceilings. The HIF funding helps to make the LTP more affordable as described in Section 3.2.5 and shown in Appendix 8.

Calculations for development contributions are yet to be finalised, indicative estimates are shown below.

Table 28: Indicative development contributions per dwelling equivalent (2018 \$)

| Activity | Indicative Development Contribution per Dwelling Equivalent |
|-----------------------------------|---|
| Water Supply | \$5,170 |
| Wastewater | \$3,466 |
| Stormwater | \$2,121 |
| District Wide Transport DC | \$4,960 |
| TOTAL | \$15,717 |

9.5 Funding/revenue sources and profile

It is proposed that funding for this project is provided via the Housing Infrastructure Fund (HIF) with repayments being made from development contributions. Transport HIF funding will be part-funded via a 51% Funding Assistance Rate (FAR) which will be applied across the entire QLDC Land Transport Programme. We understand that the HIF funding for infrastructure will be via interest free debt from the Crown, and the FAR will be funded from a HIF loan directly to NLTF, not QLDC.

We understand the total HIF funding is near its full allocation and this Detailed Business Case is perhaps the last to be submitted. In this regard, we highlight that the requested \$26.4 million includes 30% contingency on top of a Base Estimate of \$19.8 million. Should the full funding not be available, we propose considering the following mechanisms to proceed with development within the available funding allowance:

- Given that the proposed infrastructure and topography is not technically or commercially challenging, the parties may favour a lower contingency allowance.
- There may be components of the work that could be excluded from the HIF and funded directly either by Council or the developer as part of the Developer Agreement.
- We could deduct or defer certain items from the immediate development phase.
- Risk and contingency could be balanced across all three QLDC HIF projects, and this could be incorporated into the future loan documentation (whereas currently we are simply explaining the scope of work and cost required).

³¹ From QLDC Annual Plan 2017/18

9.5.1 Funding options

The options for funding the growth, operational costs and depreciation are shown below.

Table 29: Options for funding the growth

| Cost | Funding Mechanism |
|---------------------|---|
| OPEX & Depreciation | General rates |
| Growth CAPEX | DC's, external debt and, NZTA FAR subsidies |

9.5.2 NZTA contributions

The NZTA Funding Assistance Rate (FAR) is expected to be in the order of 51% with the balance of the budget to be provided through a local share. The FAR assumptions in Table 30 are in 2018 dollars to be in line with NZTA working in 2018 dollars. The total roading component is funded by NZTA (via separate HIF loan to NLTF) at 51% FAR.

Table 30: Cost sharing and FAR assumptions (2018 \$)

| Roading | P50 Estimate | FAR | HIF Portion | NZTA Subsidy |
|--------------|-----------------|-----|----------------|----------------|
| Roundabout | \$7.65m | 51% | \$3.75m | \$3.90m |
| Bus Stop | \$2.37m | 51% | \$1.16m | \$1.21m |
| Underpass | \$2.23m | 51% | \$1.09m | \$1.14m |
| Total | \$12.26m | | \$6.01m | \$6.25m |

A comparison of the overall FAR assumptions in inflated vs 2018 dollars is shown below in Table 31.

Table 31: Cost sharing and FAR assumptions 2018 vs inflated

| Roading | Total | HIF Portion | NZTA Subsidy |
|--------------------|----------|-------------|--------------|
| 2018 \$ | \$12.26m | \$6.01m | \$6.25m |
| Inflated \$ | \$12.70m | \$6.22m | \$6.47m |

9.5.3 Funding Model assumptions

- Construction commences in FY2020. The 3 Waters infrastructure for Glenpanel, and the transport infrastructure construction is assumed to be finished over a two-year period. The wastewater infrastructure for areas A and B will be constructed in year 4 (2021).
- All DCs are used to pay back the HIF loan. Any surplus DC from a financial year will be held in reserve to pay off any future HIF debt in the following financial year.
- Any loan that must be borrowed externally to pay back the HIF balance 10 years from drawdown is assumed to be taken at 5% with a repayment period of 10 years.
- 51% FAR is assumed for the transport infrastructure (roundabout, bus stops/shelters and underpass). Direct HIF transport drawdowns occur after the NZTA FAR subsidy.
- Figure 21 below outlines the assumed lot release schedule used to calculate the DC repayments, following guidance from developers.

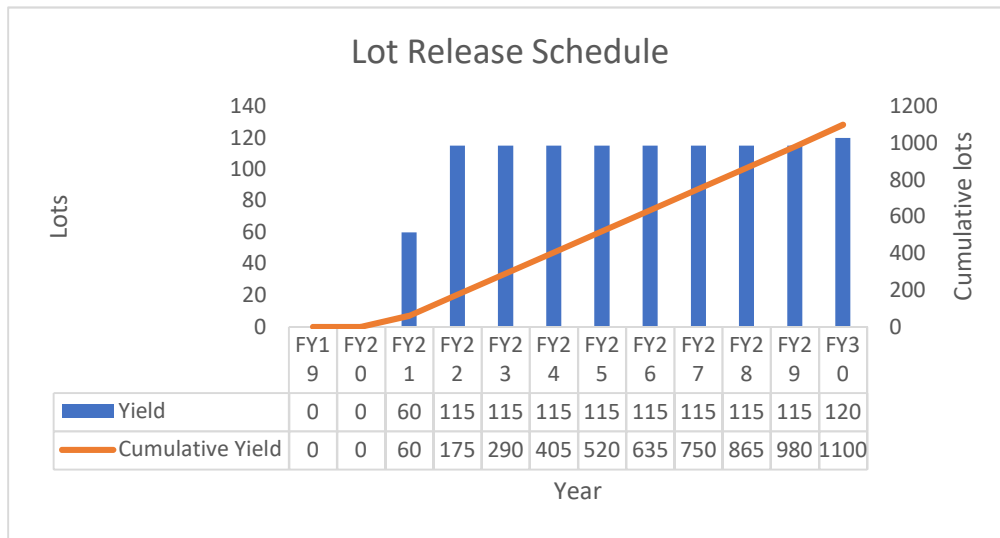


Figure 21: Lot release schedule

9.6 HIF Loan Drawdown and Repayment Profiles

The proposed HIF loan drawdown and repayment profiles are summarised in this section. A summary table of both is included after the figures.

The proposed loan drawdown profile is presented in Figure 22 below.

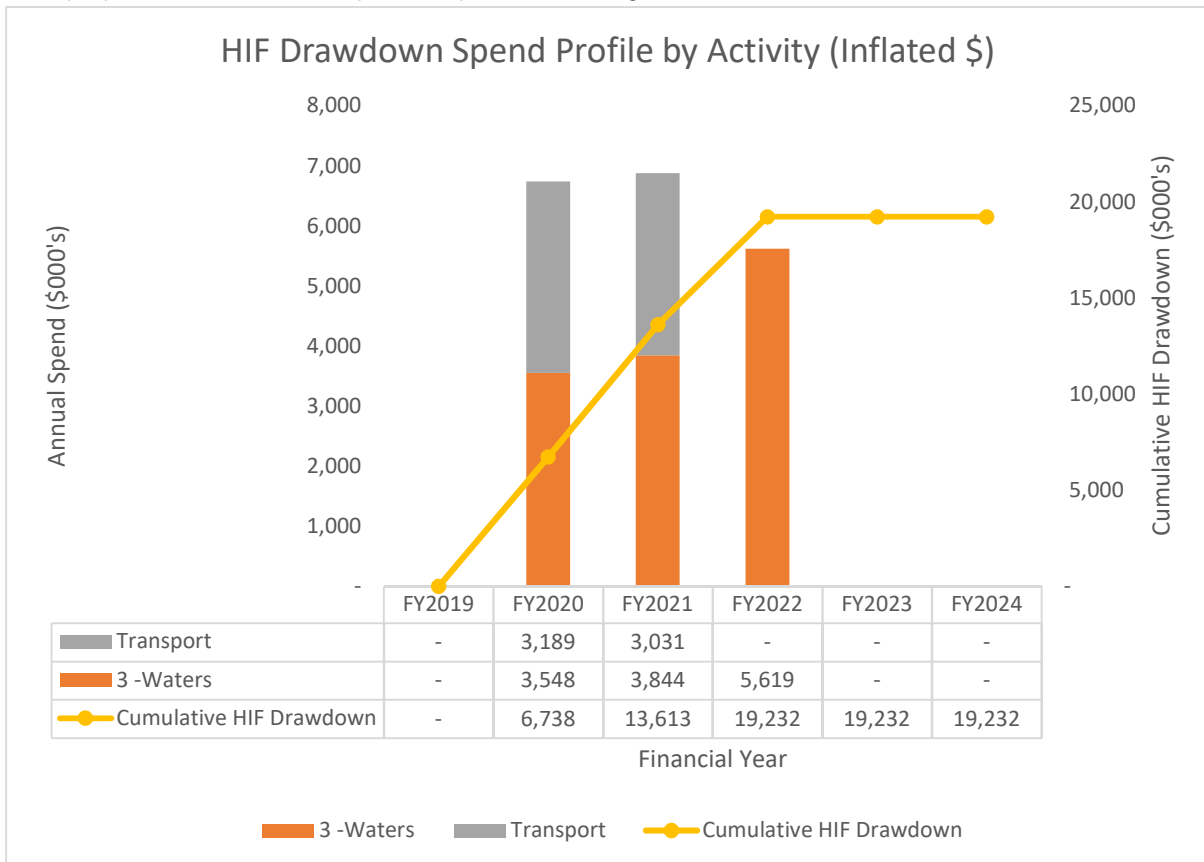


Figure 22: HIF Loan Drawdown Profile

The loan repayment profile is presented in Figure 23 below. Repayments will be paid upon receipt of Development Contributions, with full repayment of each drawn amount 10 years after drawdown. As can be seen, the HIF debt will be repaid by 2032.

At this stage a fixed repayment schedule has not been agreed. If this is desired, then it will be negotiated in the final loan agreement between QLDC and MBIE.

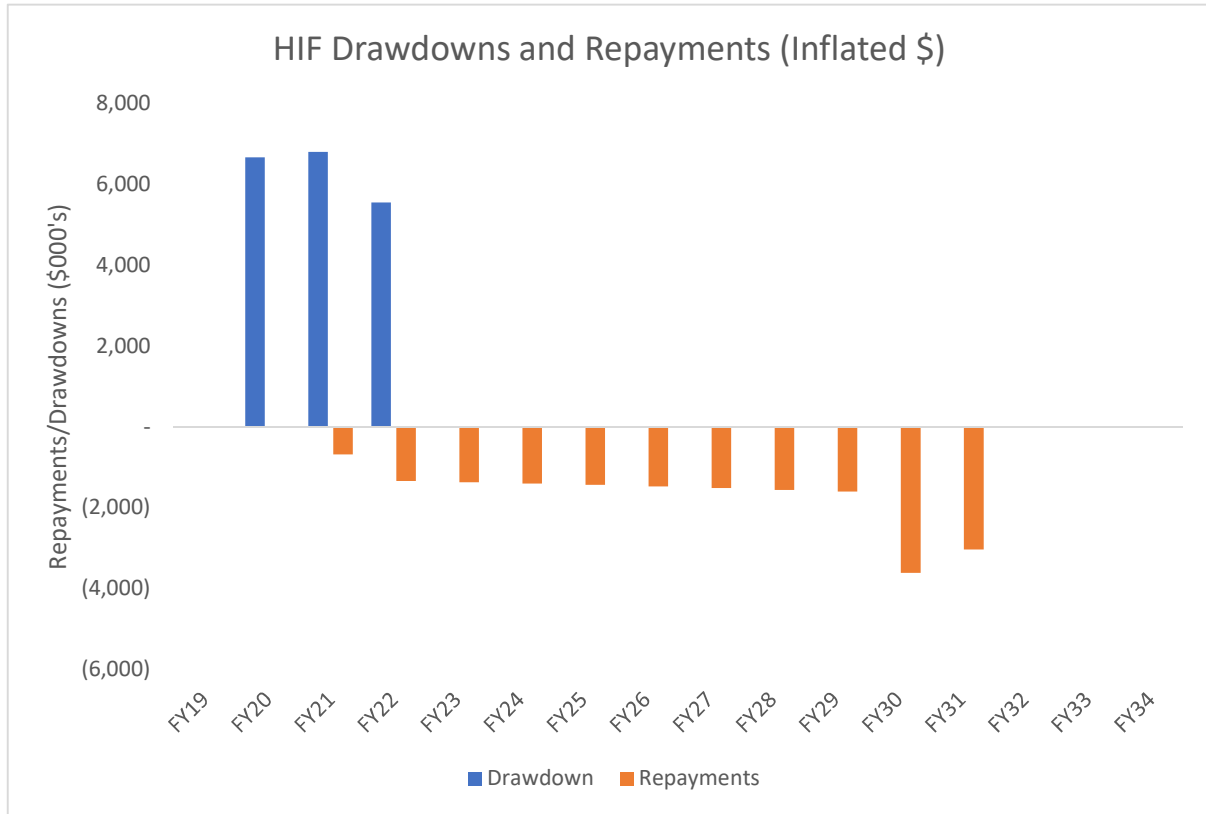


Figure 23: HIF Loan Repayment Profile

Table 32: Drawdown/repayment schedule (Inflated \$)

| Annual in (\$000's) | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | FY27 | FY28 | FY29 | FY30 | FY31 | FY32 | FY33 | FY34 | Total |
|---------------------|------|-------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|------|------|----------|
| Drawdown | - | 6,738 | 6,875 | 5,619 | - | - | - | - | - | - | - | - | - | - | - | - | 19,232 |
| Repayments | - | - | (682) | (1,336) | (1,369) | (1,402) | (1,438) | (1,476) | (1,516) | (1,558) | (1,603) | (3,821) | (3,031) | - | - | - | (19,232) |
| Balance | - | 6,738 | 6,194 | 4,282 | (1,369) | (1,402) | (1,438) | (1,476) | (1,516) | (1,558) | (1,603) | (3,821) | (3,031) | - | - | - | - |

Table 33: Repayment revenue sources

| Annual in (\$000's) | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | FY27 | FY28 | FY29 | FY30 | FY31 | FY32 | FY33 | FY34 | Total |
|-------------------------|------|------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|------|------|----------|
| DCs | - | - | (682) | (1,336) | (1,369) | (1,402) | (1,438) | (1,476) | (1,516) | (1,558) | (1,603) | (713) | - | - | - | - | (13,092) |
| Balloon | - | - | - | - | - | - | - | - | - | - | - | (3,109) | (3,031) | - | - | - | (6,140) |
| Total Repayments | - | - | (682) | (1,336) | (1,369) | (1,402) | (1,438) | (1,476) | (1,516) | (1,558) | (1,603) | (3,821) | (3,031) | - | - | - | (19,232) |

Table 34: Pre and post Inflation cashflows

| | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | FY27 | FY28 | FY29 | FY30 | FY31 | FY32 | FY33 | FY34 | Total |
|-----------------------|------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|------|------|----------|
| PRE-INFLATION | | | | | | | | | | | | | | | | | |
| Total CAPEX | 511 | 9,543 | 9,773 | 5,443 | - | - | - | - | - | - | - | - | - | - | - | - | 25,270 |
| HIF Benefit | 317 | 6,270 | 6,548 | 5,232 | - | - | - | - | - | - | - | - | - | - | - | - | 18,367 |
| Other Benefit (QCC) | - | 220 | 220 | 211 | - | - | - | - | - | - | - | - | - | - | - | - | 652 |
| NZTA Funding | 193 | 3,053 | 3,005 | - | - | - | - | - | - | - | - | - | - | - | - | - | 6,251 |
| | | | | | | | | | | | | | | | | | |
| Drawdown | - | 6,587 | 6,548 | 5,232 | - | - | - | - | - | - | - | - | - | - | - | - | 18,367 |
| Repayments | - | - | (649) | (1,244) | (1,244) | (1,244) | (1,244) | (1,244) | (1,244) | (1,244) | (1,244) | (4,349) | (2,887) | (527) | 0 | - | (18,367) |
| Balance | - | 6,587 | 5,899 | 3,987 | (1,244) | (1,244) | (1,244) | (1,244) | (1,244) | (1,244) | (1,244) | (4,349) | (2,887) | (527) | 0 | - | - |
| POST-INFLATION | | | | | | | | | | | | | | | | | |
| Inflation | 0% | 2% | 3% | 2% | 2% | 2% | 3% | 3% | 3% | 3% | 3% | 2% | 2% | 2% | 2% | 2% | 2% |
| Cumulative inflation | 0% | 2% | 5% | 7% | 10% | 13% | 16% | 19% | 22% | 25% | 29% | 32% | 35% | 38% | 40% | 43% | 46% |
| | | | | | | | | | | | | | | | | | |
| Total CAPEX | 511 | 9,772 | 10,262 | 5,846 | - | - | - | - | - | - | - | - | - | - | - | - | 26,390 |
| HIF Benefit | 317 | 6,421 | 6,875 | 5,619 | - | - | - | - | - | - | - | - | - | - | - | - | 19,232 |
| Other Benefit (QCC) | - | 226 | 231 | 227 | - | - | - | - | - | - | - | - | - | - | - | - | 684 |
| NZTA Funding | 193 | 3,126 | 3,155 | - | - | - | - | - | - | - | - | - | - | - | - | - | 6,475 |
| | | | | | | | | | | | | | | | | | |
| Drawdown | - | 6,738 | 6,875 | 5,619 | - | - | - | - | - | - | - | - | - | - | - | - | 19,232 |
| Repayments | - | - | (682) | (1,336) | (1,369) | (1,402) | (1,438) | (1,476) | (1,516) | (1,558) | (1,603) | (3,821) | (3,031) | - | - | - | (19,232) |
| Balance | - | 6,738 | 6,194 | 4,282 | (1,369) | (1,402) | (1,438) | (1,476) | (1,516) | (1,558) | (1,603) | (3,821) | (3,031) | - | - | - | (0) |

9.7 Financial Risk

There are a number of financial risks associated with this project and the key ones are shown below.

Table 35: Financial risks

| | |
|---|--|
| Construction Costs in Excess of Estimate | <ul style="list-style-type: none"> Some of the designs are currently immature (eg pedestrian underpass and bus stop design) May require additional approval processes through NZTA and may delay commencement and/or completion of the road. May compromise design specification if negotiations with preferred supplier unsuccessful |
| HIF Funding not secured: | <ul style="list-style-type: none"> Central government (MBIE) and QLDC do not reach funding agreement. |
| NZTA does not Approve the Requested Funding Application: | <ul style="list-style-type: none"> The development will be delayed or not progressed. Lower design specification which will likely compromise the investment objectives and the national and community requirements. |
| Delays in NZTA Funding Approval: | <ul style="list-style-type: none"> Delays in funding approval will delay the commencement of the roading physical works, delaying the development of houses. |
| Funding of required transport interventions not obtained | <ul style="list-style-type: none"> Will compromise the number of achievable dwellings, compromising the objective. |

9.8 Allocation of financial risks to other parties and their ability to manage risks

Financial risks will be transferred or shared through the project implementation where it makes sense. Risks will be managed by the organisations that are best placed to manage them.

Table 36: Allocation of financial risks

| Organisation | Risk details |
|-----------------------|---|
| MBIE | MBIE holds the risk of loaning money to QLDC in an interest free situation. This risk is focused on the threat of the loan not being repaid and not providing the intended return or benefits. |
| QLDC | QLDC take on the risk of debt to construct the infrastructure ahead of the returns that will help them repay the loan. |
| NZTA | As an investor in the required roading and transport infrastructure, NZTA will be keen to manage risks around the effective development of the proposed area and the effectiveness of the transport solution (including wider network impacts). |
| The Developers | After the infrastructure is constructed, QLDC transfers some risk to the developer through the responsibility to develop the agreed area and provide returns to fund the loan repayment. |
| The Ratepayer | The ratepayer owns financial risk through providing funds to repay debt through rates. They also may be subject to higher rates levels if the operational cost of the new infrastructure is higher than expected. |

The transfer of risk may vary based on the approach agreed. Refer to the Management Case for mitigation methods to minimise these risks. Wider project risks are captured in the risk register included in Appendix 9.

PART B: READINESS AND ASSURANCE

10 Commercial Case to deliver more houses faster

This Commercial Case focuses on the key strategies to ensure this project is commercially viable and how the market will be engaged to deliver it. Key components are the strategies for procurement, consenting and property acquisition, alongside the approach to risk allocation and delivery responsibilities.

10.1 Commercial viability of housing supply

Within the Queenstown Lakes District, there is a buoyant house construction market with strong capability and demand. This situation bodes well for the commercial viability of housing supply in the area. Figure 24 demonstrates the strong sales growth for properties in the area.

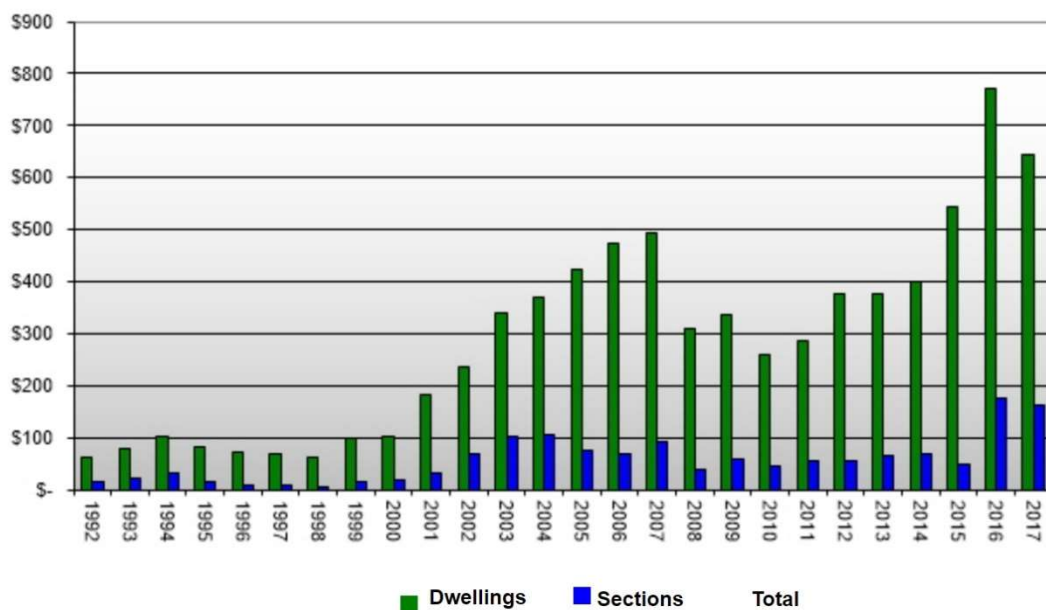


Figure 24: Total sales in millions year on year for properties in Queenstown and Arrowtown
Source: http://www.queenstownproperty.com/queenstown_real_estate_sales.html

In 2017 Ladies Mile was added to QLDCs Special Housing Area (SHA) Lead Policy, which includes an indicative Ladies Mile masterplan, strategies and objectives for SHA Expressions of Interest (EOIs) to align with. The bulk infrastructure to be built with the HIF funding will enable the Ladies Mile developments.

Through the SHA process at least 10% of the development will need to be identified as affordable housing.

Glenpanel Development Ltd and Maryhill Ltd are together an active developer interested in this area, in 2016 they lodged an EOI for an SHA on the land they own at Glenpanel. The EOI was unsuccessful due to insufficient information to determine if the site could be adequately serviced. The previous barriers faced at Glenpanel have potentially been removed by the subsequent change to the SHA Lead Policy and the potential of HIF funding for bulk infrastructure. Glenpanel Development Ltd and Maryhill Ltd have together indicated that as partners they intend to lodge a reworking of their EOI.

Located within five minutes drive of the large commercial developments at Frankton Flats, on a bus route and adjacent to the Lake Hayes Estate and Shotover Country residential developments, houses at Ladies Mile will be in a highly desirable location.

10.2 Implementation Strategy

The Implementation Strategy considers these key areas:

- The deal requirements

- Staging
- Implementing organisations
- Developer Strategy
- Procurement Strategy
- Consenting Strategy
- Property Acquisition Strategy

Each of these will be addressed separately in the following sections. The schedule below provides a snapshot of what needs to be procured, how it will be funded and responsibilities for each phase of work. In summary QLDC lead all bulk infrastructure and the developers lead the works through their land, two exceptions could be the wastewater pump stations for A and B and the water pipeline to the reservoir which are likely to be funded by QLDC-HIF but constructed by the developer as they are on the developers land (to be confirmed in Developer Agreements).

Table 37: Outline of anticipated commercial and implementation responsibilities (to be included as Schedule 2A of the Developer Agreements)

| Item | Funded By | Approval/ Consent Responsibility | Design Responsibility | Procurement Responsibility | Constructed By | Construction Management Responsibility | Owned By | Operated & Maintained By |
|---|----------------------|--|--------------------------|-------------------------------|-------------------|--|---------------|-----------------------------|
| Watermain Installation | | | | | | | | |
| Internal reticulation | Dev. | Dev. | Dev. | Dev. | Dev. | Dev. | QLDC (vested) | QLDC |
| External trunk mains | QLDC – BAU/HIF | QLDC | QLDC | QLDC | QLDC | QLDC | QLDC | QLDC |
| Pipeline to/from Water Reservoir | QLDC – BAU/HIF | Dev. | Dev. | Dev. | Dev. | Dev. | QLDC (vested) | QLDC |
| Water Reservoir | QLDC – BAU/HIF | QLDC | QLDC | QLDC | QLDC | QLDC | QLDC | QLDC |
| Wastewater Installation | | | | | | | | |
| Internal infrastructure | Dev. | Dev. | Dev. | Dev. | Dev. | Dev. | QLDC (vested) | QLDC |
| Pipe Installation External | QLDC - HIF | QLDC | QLDC | QLDC | QLDC | QLDC | QLDC | QLDC |
| Pumpstation and rising main for Areas A and B | QLDC - HIF | Dev. | Dev. | Dev. | Dev. | Dev. | QLDC (vested) | QLDC |
| Stormwater Installation | | | | | | | | |
| Internal Infrastructure | Dev. | Dev. | Dev. | Dev. | Dev. | Dev. | QLDC (vested) | QLDC |
| External discharge pipe and outfall installation | QLDC - HIF | QLDC | QLDC | QLDC | QLDC | QLDC | QLDC | QLDC |
| Roading | | | | | | | | |
| Internal roads | Dev. | Dev. | Dev. | Dev. | Dev. | Dev. | QLDC (vested) | QLDC |
| Roundabout at SH6/ Howards Drive intersection | QLDC / NZTA - HIF | QLDC / NZTA | QLDC / NZTA | QLDC / NZTA | QLDC / NZTA | QLDC / NZTA | NZTA | NZTA |
| Underpass & Bus Shelter | QLDC / NZTA - HIF | QLDC / NZTA | QLDC / NZTA | QLDC / NZTA | QLDC / NZTA | QLDC / NZTA | NZTA | NZTA |

10.2.1 The deal – what is required

Schedule 2A (Table 37, Page 76), above outlines what is required in the deal to successfully deliver the project. Some of the services and facilities can be delivered by QLDC internally, while other elements need to be procured from the market. The items required from the market can be broadly broken into two categories:

- Professional services (such as engineering design and legal counsel).
- The construction of transport and 3 waters bulk infrastructure.

To enable this, the following needs to be completed:

- Secure funding through an appropriate agreement.
- A procurement process must be in place to ensure that suitable service providers, capable of delivering to the required specification, are in place for both the design and construction phases of the project.
- Property purchases and/or access agreements and affected party approvals must be complete to enable the project to be constructed in the preferred location and to the desired specification.
- Planning approvals and any required consents must be in place to comply with the Resource Management Act.

10.2.2 Implementing Organisations

To ensure commercial viability, to date all key organisations have been involved and advice sought from experts in their field. This includes:

- QLDC (Project Manager, Project Sponsor, Engineer, Planner and owner of the 3 Waters Infrastructure)
- MBIE – as investment partners.
- NZTA – through the required roading developments.
- Harrison Grierson consultants (QLDC HIF Programme Management)
- Glenpanel Development Ltd and Maryhill Ltd (partnering developers of Stage 1 (Glenpanel))
- Rationale – Business Case Advisors
- Stantec – Peer review of engineering documentation.
- WT Partnership – Cost estimate peer review and risk contingency evaluation
- Various legal, engineering, planning and commercial advisers as engaged by QLDC or developer.

The role for each party is outlined in Schedule 2A (Table 37, Page 76).

10.2.3 Governance/steering group

It is proposed to retain the governance group (see the Management Case) that will play a role at a strategic level, ensuring the project activities are coordinated with related activities occurring in the district. It is assumed that a governance or steering group will be used to represent the partners and oversee project delivery activities.

Through this steering group, QLDC will work in partnership with NZTA and ORC where appropriate to plan, review and appoint the suppliers for the roundabout, bus stop and underpass design and construction.

10.3 Developer Strategy

Queenstown Lakes District Council is in ongoing and productive discussions with the Glenpanel land owners/developers (Glenpanel Development Ltd and Maryhill Ltd) to align their aspirations and program for delivering sections and housing in a way that matches the planned investment through the HIF allocation to Council.

The addition of Ladies Mile to QLDCs Special Housing Area Lead Policy in 2017 followed public consultation, including the owners and property developers. The SHA lead policy includes an indicative masterplan and guidelines for developments. The bulk infrastructure to be built with the HIF funding will enable the Ladies Mile developments.

Figure 25 below shows the Ladies Mile landowners within the SHA Boundary, the Glenpanel site has a yellow outline.

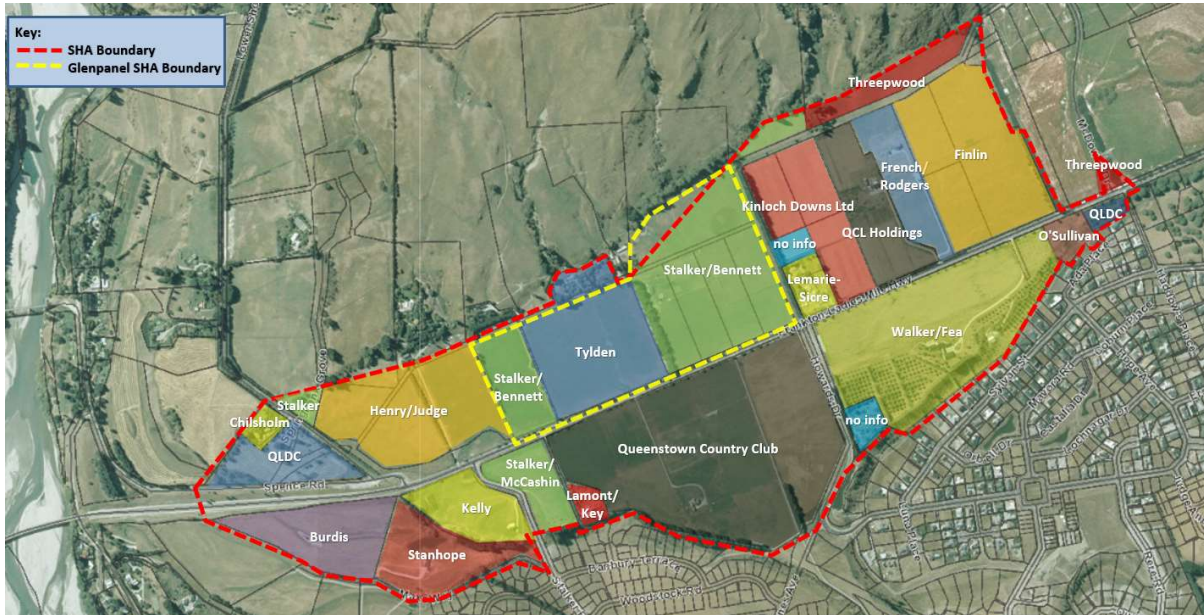


Figure 25: Ladies Mile Landowners

The Council is negotiating with the land owners to secure housing supply once any HIF allocation has been confirmed. The developers of Glenpanel, Glenpanel Development Ltd and Maryhill Ltd, are together preparing an EOI for an SHA on their land, they are the most progressed to advance the delivery of between 450-650 houses. Land in Area A is currently for sale and has been shown interest by developers, the other two landowners in Area A have also shown interest to Council in developing their land. Our developer strategy consists of the following elements at this time:

- Private Developer Agreement (PDA) discussions with Glenpanel Development Ltd and Maryhill Ltd (regarding Glenpanel)
- Discussions with other land owners (currently informal and in development).

10.3.1 Discussions with Glenpanel Development Ltd and Maryhill Ltd (Glenpanel SHA)

Glenpanel Development Ltd and Maryhill Ltd are together two of the key land owners in the Ladies Mile area. Together they are the readiest to proceed with development and they own a large part of the land, centrally located in the overall development. Council is actively working with them to gain a designated SHA status to enable the development of approximately 450 dwellings across their land, although following this project the developer will be encouraged to provide a higher density of the development, in line with the Ladies Mile Masterplan. The previous EOI for Glenpanel SHA in 2016 was for 200 residences as shown in the concept masterplan in Figure 26 below, note that this will be superseded in their new EOI currently being designed.



Figure 26: Glenpanel previous masterplan concept for 200 houses (2016)

Council has shared a draft joint Development Agreement with Glenpanel Development Ltd and Maryhill Ltd, with both having stated they will readily enter joint agreement as soon as access to their development is provided off SH6.

To gain confidence that houses will be built on the completed sections as soon as practicable, QLDC will negotiate with the developers to include a covenant on the titles that will require the purchaser to construct a house within 2 years of land purchase.

10.3.2 Discussions with other land owners

The focus of our discussions has been principally with Glenpanel Development Ltd and Maryhill Ltd. At this stage there have been no other formal expressions of interest towards QLDC. However, it is reported that there is developer interest in the land currently for sale in Area A, and that two other landowners in Area A have had informal discussions with Council about developing their land.

Council will continue discussions with the other main land owners to create investment alignment and to boost housing supply enabled by the HIF allocation.

10.4 Procurement Strategy

10.4.1 Market capability

QLDC is confident that there is adequate market capability to deliver this infrastructure given the low level of complexity and the straight forward nature of the construction. Current assessments identify several engineering and construction firms based locally and/or regionally that are capable of providing the deliverables.

Works within the state highway corridor (e.g. roundabout, underpass, bus stops and 3 waters infrastructure) will require the designers and construction firm to work closely with NZTA on an acceptable solution, including

the final location and construction methodology. There are several firms based locally/regionally that are capable of meeting these requirements.

Servicing within Glenpanel development will be carried out jointly by Glenpanel Development Ltd and Maryhill Ltd, the major landowners. Glenpanel Development Ltd is an experienced and proven developer who has been active in the Queenstown Lakes District for 25 years, and was the developer behind Shotover Country subdivision. Whilst this is not part of the HIF project, it is essential for achieving the overall benefit of more houses faster.

10.4.2 Overall Delivery

Council will adopt a Programme Delivery Model for this HIF project, in conjunction with other infrastructure works identified in the Long-Term Plan. The guiding principles for programme delivery are:

- Programme must be met within:
 - Non-Negotiable Needs dates (NNNs)
 - Budget
 - Scope
 - Identified benefits
 - Appropriate risk tolerances
- Delivery model must achieve programme efficiencies (the approach to delivery must achieve measurable programme and value benefits over and above business-as-usual).
- The approach must be consistent with QLDCs principles for procurement:
 - Quality and Value for Money
 - Transparency and Fairness
 - Accountability and Integrity
 - Sustainability
- The approach to programme delivery must maximise QLDC's control whilst minimising risk.
- Delivery must pass from one phase to another through a Gateway review and approval process.
- The approach must enable QLDC to be agile, within set principles and boundaries.
- The approach must be attractive to the market.

The Delivery Model for the Ladies Mile HIF Project is likely to be mainly 'traditional' (i.e. separate design and construction contracts). There is little opportunity for value-driven innovation under a design/build contracting arrangement. The primary steps for the delivery involve:

- Appointment of a Design Consultant by QLDC to:
 - prepare designs, including:
 - prepare funding applications
 - determine a procurement process and programme for the delivery of the physical works
 - tender, evaluate and award physical works contracts on behalf of QLDC
 - administer Construction Contract(s).
- Appointed Contractors will complete the physical work for each contract to specified completion dates with liquidated damages for late completion.

QLDC will appoint a dedicated, specialist Project Manager for the Ladies Mile project. They will assist QLDC in overseeing the consents and technical aspects of the project for both the roading and utilities aspects of the overall infrastructure programme.

10.4.3 Construction

All physical works could be awarded under one or more contracts, depending on further analysis of the market and commercial condition.

A two-stage procurement process will likely be implemented, comprising:

- Expressions of Interest (EOI).
- Tender.

This will enable the market place to be tested for interest prior to full tender.

A price quality method of tender evaluation will ensure quality of works is a key consideration in the evaluation of tenders. The works will likely be undertaken as a 'measure and value' contract allowing a transfer of risk to the contractor. Provided unforeseen circumstances are minimal, with little amendment to the quantities, the price for construction will be relatively certain.

10.5 Consenting Strategy

The consenting strategy will aim to gain approvals in a timely manner to prevent delays to construction activities. The land is currently zoned rural, however it has been opened up to receive EOIs for SHAs through its addition to the SHA Lead Policy in 2017. This will ensure the land can be developed in line with the preferred option. Glenpanel Development Ltd and Maryhill Ltd, are together currently advancing with an EOI for Glenpanel to become a SHA.

There are no water abstraction or disposal consents required for this development. The borefield expansion at Shotover Country will be undertaken as a separate Council project, and all wastewater from the development will be piped directly to the existing Shotover wastewater treatment plant. Glenpanel will discharge stormwater to an already consented outfall that was installed by Queenstown Country Club and for which there is a \$1.7m cost-share agreement forming part of this HIF funding.

The only consent required by Council will be for a new stormwater outfall into the Shotover River from Area A, this will require a stormwater discharge consent from Otago Regional Council. It is expected that this consent will be publicly notified and will take approximately six months to obtain. The consent application will be lodged at the outset of detailed engineering design.

QLDC will need to seek legal and planning advice to assess and inform the detailed approach to consenting process management. The scope for this support will be focused on determining the Resource Management Act (RMA) requirements for obtaining the necessary planning approvals to deliver the project as a whole.

10.5.1 Designations

A new roundabout is required on SH6 to service the Ladies Mile Development and also Howards Drive, which leads to Lake Hayes Estate. QLDC Planners will need to work through the underlining zonings and land holdings and determine whether to utilise the designation process and lodge Notices of Requirement. This would provide certainty with respect to on-going operation, maintenance and upgrading. Preparing Notices of Requirement would follow a similar process to that followed for resource consent and is expected to be achieved within a comparable timeframe and require the same technical reports.

Preliminary designs and site investigations will determine the extent of effects associated with the proposed roundabout, potential mitigation measures and ultimately whether some or all applications are likely to be publicly notified. Until these variables are confirmed public notification of all consent applications has been assumed. Based on similar types of applications it is anticipated that allowing 12 – 18 months for preparation, lodgement and granting of approvals is realistic. The process will include the following stages:

Preliminary Design and Site Investigations

This will include commissioning the necessary technical reports to identify potential constraints, adverse effects and recommend suitable mitigation measures to support the application. Once preliminary design is completed the works will be assessed against the rules under the relevant Regional and District Plans to confirm the extent of consents required and activity status. At this

stage potential risks to the timeframes will be confirmed and will be managed by the project team early in the process to avoid undue delays.

Pre-application discussions with consenting authorities

Pre-application discussions with the relevant consenting authorities will be undertaken prior to lodgement of the consent. This will ensure that sufficient information is provided with the application and identify any stakeholder groups that have not already been confirmed as interested / affected parties to the proposal. Pre-application meetings will also allow the applicant to provide background and context to the application before it is lodged.

Stakeholder and affected party consultation

Stakeholder consultation and engagement has commenced and will continue throughout the duration of the project. Stakeholders and affected/interested parties identified specifically relating to the resource consent applications include:

- Local residents and landowners
- NZTA
- Otago Regional Council (for public transport impacts)
- Heritage New Zealand
- Local Iwi (Kai Tahu ki Otago Ltd)
- Additional stakeholders or affected parties may be identified through either the preliminary investigation or preapplication processes described above. Stakeholder consultation will be tailored to each party in recognition of the different interests and information requirements.

Finalising applications and lodgement

Finalising the application will bring together stakeholder consultation and matters raised in the preapplication meeting.

Public notification, hearings and decisions

Public notification, processing and the subsequent hearings will follow the statutory timeframes set out under the Resource Management Act, however allowing for further information requests and any other matters through the process a timeframe of 12 months has been allowed for, in consideration of timeframes for similar projects undertaken and work undertaken to date.

Appeal period

Consultation with stakeholders and community engagement at the early stages of the projects and throughout the duration of the consent process will be undertaken to mitigate the risk of appeals. The effect an appeal on timeframes and costs would vary depending on scope and matters of contention and are therefore difficult to anticipate. It is noted however that the roundabout will add significant safety measures to the existing intersection and consultation to date has not identified significant issues that would result in an appeal to the proposed consents.

10.6 Property acquisition strategy

At this point in time (pre-detailed design) there are no known property purchases required. The developer and Council have separately tried negotiating with the owner of the Pet Lodge for the sale of land to allow the roundabout to be installed at the current intersection of Howard's Drive and SH6. The Pet Lodge owner is reluctant to sell, and therefore the roundabout will be relocated further west along SH6 and a portion of Howards Drive will be realigned to suit. This will require acquisition of some land on the south side of SH6 owned by the Queenstown Country Club. As part of their HAASHA consent, Queenstown Country Club volunteered a Condition to transfer land reasonably required for a roundabout to NZTA without any compensation payable to the Consent Holder ("Condition No.71"). Glenpanel will provide the required land to the north of SH6 at no cost. If any further property is required for facilities and service provision, then standard QLDC acquisition processes would be applied.

Glenpanel also owns the land where the water reservoir will be located. An easement will be obtained for this and the rising/falling water mains prior to subdivision.

10.7 Contract Management

The design of all headworks shall be performed by a consulting engineering company, engaged by QLDC under the terms of the *ACENZ/IPENZ Short Form Agreement*.

The procurement of all equipment and materials, and the installation and construction of all works shall be performed by a construction contractor on behalf of QLDC under the terms of *NZS3910:2013 Conditions of Contract for Building and Civil Engineering Construction*.

During construction, the appointed design consultant will act as the Engineer to Contract and perform all MSQA.

10.8 Risk allocation and transfer/mitigation

The strategy, framework and plan for managing change, contracts and risk will be founded on QLDC's established quality, risk, contract and cost management policies and procedures, which are based on the Government Rules of Sourcing. QLDC has consistently demonstrated its ability to procure and deliver technically challenging water and wastewater projects in partnership with the private sector, including the Lake Hayes water and wastewater scheme, Project Pure, and the recently completed Shotover wastewater treatment plant.

As part of this current business case process, QLDC has held workshops to identify, evaluate and manage risks. This risk management process will continue through all stages of the planning and implementation of this project, so that all risks are owned by the group most capable of managing it, subject to the relative cost. The primary objective will be to optimise the allocation of risk, rather than simply maximising risk transfer. The Risk Register will be the key to a successful risk transfer process, providing QLDC as the procuring authority with a clear understanding of the risks, their potential impact on their incentives and financing costs, and the degree to which risk transfer offers value for money.

Contractors will be encouraged to take all those risks that they can manage more effectively than QLDC, where clear ownership, responsibility and control can be established. This transfer of risk will generate incentives for Contractors to supply timely, cost effective and more innovative solutions.

A Risk Transfer Matrix shall be implemented as part of the project execution, illustrating the percentage of risk to be borne by each party. The preliminary matrix is currently under preparation as part of the Development Agreement negotiations.

11 Management Case to deliver more houses faster

11.1 Overview

The Management Case addresses how the project will be delivered. It considers:

- Governance structure and project roles.
- Peer review and assurance.
- Decision gateways.
- Change management.
- Cost and issue management.
- Benefits realisation.
- Implementation programme.
- Key milestones.

All of these elements will be captured in a detailed Project Execution Plan to be developed by QLDC upon approval of the HIF funding.

It must be noted that this Management Case focuses on the activities required to deliver residential sections and the subsequent houses to be constructed. But of equal or perhaps more importance will be the Management Case required to implement the improved public transport services required to achieve the target patronage levels. This is critical to the viability of development at Ladies Mile but is beyond the capability of this Detailed Business Case at this time of concept design. This greater Management Case will establish procedures for the measurement, monitoring and enforcement of the trigger points, and will likely utilise the number of consented/developed lots as the monitoring criteria up to the existing hold point of 1,100 established lots. It is proposed that enforcement will be undertaken by QLDC, supported by NZTA by the provision of traffic counts, and by ORC by the provision of public transport patronage and economic data.

The Governance Group and the Project Control Group presented below are aware of this need and support the strategy to develop a separate Action Plan for public transport.

11.2 Governance Structure and Project Roles

QLDC's proposed management structure is based on collaboration with NZTA at a governance and control group level, supported by a Project Delivery Team that will have an implementation focus with mixed representation from QLDC, ORC, developers and supporting consultants. MBIE's role during implementation (i.e. post loan drawdown) will be one of receiving progress reports and monitoring status. The HIF Project Governance Group will look across each HIF project in the district and provide a mechanism to share learnings and to balance competing priorities across the three HIF projects. Ladies Mile will benefit from a dedicated Infrastructure Project Control Group and the supporting Project Delivery Team.

The organisational structure and group/individual roles are outlined below.

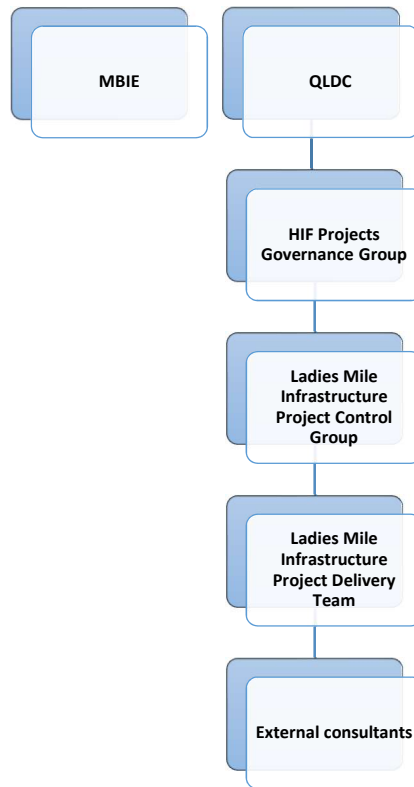


Figure 27: Proposed organisational structure

11.2.1 HIF Projects Governance Group

A Governance Group will be formed to provide leadership for the implementation of Housing Infrastructure Fund projects in the Queenstown Lakes District. The groups role will be to ensure the mutual support of representative organisations and staff, to resolve differences that arise during the development of Kingston, Quail Rise South, and Ladies Mile projects.

Terms of Reference: To provide leadership for the implementation of Housing Infrastructure Fund projects in the Queenstown Lakes District; to ensure the mutual support of representative organisations and staff; and agree to resolve differences that arise during the development of these projects.

Meeting frequency: Approximately monthly, but no less than quarterly.

Attendees

- Jim Boulton – QLDC Mayor (Chair)
- Mike Theelen – QLDC CEO (Alternate Chair)
- Stewart Burns – QLDC CFO
- Tony Avery – QLDC Planning & Development GM
- Peter Hansby – QLDC Property & Infrastructure GM
- Leigh Halstead (or replacement) – MBIE Manager of HIF Unit
- Ian Duncan – NZTA Chief Advisor
- Steve Higgs – NZTA Planning & Investment Manager
- Gerard Collings – ORC Manager Support Services
- Ulrich Glasner – QLDC Chief Engineer (PCG Chair)
- TBC – QLDC Programme Manager (PCG Alt.)

11.2.2 Ladies Mile Infrastructure Project Control Group

A Project Control Group (PCG) will be established to encourage effective collaboration in the implementation of the Housing Infrastructure Fund projects in the Queenstown Lakes District. The groups role will be to provide efficient resolution of practical matters during the development of the design, procurement, construction, and benefits realisation phases of these projects.

Terms of Reference: A forum to effectively collaborate in the implementation of the Housing Infrastructure Fund projects in the Queenstown Lakes District; to provide efficient resolution of practical matters during the development of the Business Case, Design, Procurement, Construction, and Benefits Realisation phases of these projects.

Meeting frequency: Approximately fortnightly, but no less than monthly.

| Attendees |
|--|
| Ulrich Glasner – QLDC Chief Engineer (Chair) |
| TBC – QLDC Ladies Mile Infrastructure Project Manager (Alt. Chair) |
| TBC – QLDC Finance Department |
| Gareth Noble – QLDC Programme Director – Property and Infrastructure |
| Blair Devlin – QLDC Planning Practice Manager |
| Coral Aldridge – NZTA Outcomes Planner |
| To be confirmed – ORC (for Public Transport) |
| Other – Land/Housing Developers (As Required) |

11.2.3 Ladies Mile Infrastructure Project Delivery Meetings

The Project Delivery Meetings will be held to evaluate project status and consider any risks of the Ladies Mile Infrastructure Project under the HIF/CAPEX Programme. The meetings will incorporate design and construction progress with the required consultants.

Meeting frequency: Approximately weekly, but no less than fortnightly.

| Attendees |
|--|
| TBC – QLDC Ladies Mile Infrastructure Project Manager |
| Simon Leary – Technical Project Manager |
| TBC – ORC (for Public Transport) |
| TBC – Other QLDC Staff, as required |
| Designers and Construction Contractors: |
| TBC – Designer for Glenpanel Development Ltd and Maryhill Ltd |
| TBC – QLDC appointed Ladies Mile Infrastructure Designer, MSQA |
| TBC – appointed Ladies Mile Infrastructure Construction Rep |

11.2.4 Functional role descriptions

The key functional roles for the project implementation are shown below.

Table 38: Functional role descriptions

| Role | Description |
|--------------------------|--|
| Programme Manager | A Programme Manager will be appointed by QLDC to oversee the development and delivery of the HIF Infrastructure across the three projects. The Programme |

| Role | Description |
|---------------------------------------|---|
| | Manager will report to the Governance Group and oversee the work of the Project Managers for each HIF project. |
| Project Managers | <p>A Project Manager will be appointed for each HIF project. Their roles will include:</p> <ul style="list-style-type: none"> • Day-to-day management of the project against the approved project plan, budget and scope to deliver the specified objectives and benefits. • Ensuring the project is resourced and formally and efficiently planned. • Providing regular progress reports to the PCG. • Delivering project plans, budgets, scoping and resourcing requirements and changes to the PCG for approval. • Ensuring effective delivery of the business process changes, including documentation and training. • Undertaking full risk assessments and developing and implementing risk mitigation strategies as agreed by the PCG. • Ensuring full and proper quality assurance is carried out at regular intervals. Acting on the quality assurance findings and reporting progress on these to the Executive where appropriate. • Managing all third parties contracted during the project life cycle. |
| Engineer to Contract | An Engineer to Contract will need to be appointed under NZS 3910 as part of their professional services contract. |
| Design, Documentation and MSQA | QLDC will nominate people for the design, procurement documentation and MSQA for this project. They will do this in coordination with the Project Manager. In their MSQA role, they will act as the Engineer's Representative (NZS 3910). |
| Consents | <p>Consent applications will be processed by the council or its consultants acting in its regulatory capacity, in coordination with the developer.</p> <p>Planning consultants may be engaged to address legal and Resource Management Act 1991 (RMA) requirements including supporting applications for resource consent for the HIF Infrastructure and associated land use activities.</p> |
| Contractor/s | <p>The Contractor/s will be responsible for ensuring that the works are constructed to specification, time and budget.</p> <p>It is yet to be confirmed exactly how the works will be packaged. The preferred approach is to combine multiple packages of a similar nature to ensure it is attractive to the market. Using this approach, separate contractors will be engaged to construct the infrastructure under direction of both the developer and QLDC.</p> <p>The Contractor's main point of contact during the construction phase will be the Engineer's Representative.</p> |
| Probity | Independent role to provide a level of assurance to key investors that the project is implemented appropriately through an independent scrutiny of processes. |

11.3 Peer review and assurance

Peer review will play an important role in the management of the project and it will form a part of the controls applied by QLDC. QLDC will apply a comprehensive system of controls, management reporting, audit and assurance processes throughout the development and implementation of the Ladies Mile infrastructure project. This will include:

- QLDC delegation's policy
- Strategic planning, programme and project development following the business case philosophy

- QLDC Project Management Office oversight
- Key project reporting to the infrastructure committee.
- Budget allocations and financial monitoring
- Management reporting
- Internal audits
- Committee and Council reporting of financials
- External audits (LG Funding Authority, etc)
- Subdivision code of practice.

A key component of the assurance process is the review of engineering designs and cost estimates. QLDC will establish an Engineering Team to review and approve all designs, including HIF elements designed by the developer, which will be performed through the normal Engineering Acceptance submission process used for Subdivision Resource Consents. Independent technical specialists will be engaged to perform peer reviews of key contracted professional services such as the engineering design. This may involve review of entire design, or individual components such as geotechnical investigations or pipeline design.

The key stages and documents that will require formal review and approval are identified in

Table 39 below.

Table 39: Review and approval stages

| Component | Review and Approval required |
|--|--|
| Supplier Engagement | <p>Tender Evaluation Teams will be selected from appropriately qualified personnel with no conflict of interest in the process.</p> <p>Contractor/s will be procured in accordance with the QLDC Procurement Manual.</p> <p>Tender Evaluation Recommendations will be submitted for approval in accordance with QLDC procedures.</p> |
| Preliminary and Final Designs/Documentation | <p>To follow normal internal review procedures of each relevant contracting organisation.</p> <p>Preliminary and final designs and documentation to be submitted to QLDC for approval.</p> <p>Documentation of key identified or high-risk components to be peer reviewed by independent third party.</p> |
| Budget/Cost Estimates | <p>To follow normal internal review procedures of each relevant contracting organisation.</p> <p>To be submitted to QLDC for approval.</p> <p>Estimates for key identified or high-risk components to be peer reviewed by independent third party.</p> <p>During implementation, budgets to be updated and reported monthly, with deviations passing through the approved Project Control process.</p> |
| Construction | <p>Quality assurance requirements to be specified in Contract documents.</p> <p>Contractor to submit Quality Assurance Plan prior to commencing physical works, to include QA procedures for construction as well as identification and rectification of faults.</p> |

11.4 Decision gateways

A robust Project Execution Plan will be developed that will outline the strategy, framework and plans required for successful delivery of the project. This Plan will guide the project through a controlled, well managed and visible set of activities.

The principles of programme and project management will be adopted by the project team, based on best practice and quality management principles. A project management methodology based on best-practice bodies of knowledge such as PRINCE or PMP will be adopted, covering the life cycle of the project from start-up to closure. The methodology will provide the mechanisms and reporting arrangements to ensure project planning and monitoring are carried out rigorously and will be based on the following key principles:

- A project is a finite process with definite start and end dates.
- A project always needs to be managed in order to be successful.
- All parties must be clear about why the project is needed, what it is designed to deliver, how the outcomes are to be achieved, and a clear definition of roles and responsibilities.

These principles will be used on all occasions throughout the life of the project.

The methodology will establish a rigorous Gateway Review Process to ensure 'health checks' are performed as the project moves from one defined stage to the other, such as from preliminary to detailed design, or from design through to tendering and construction.

11.5 Change Management

During the development and delivery of the preferred engineered solution, it is important to control changes to ensure value for money is still being achieved, and benefits realised. A Change Management Plan will be prepared that will outline how changes in scope, schedule and cost are to be reviewed, agreed, documented and communicated. This will need to be an ongoing process throughout the design and construction stages.

This plan needs to address two key aspects:

1. **Planned changes:** Change that is required to implement the project, that needs to be embraced by individuals and applied to systems. Essentially this Business Case forms the strategy that defines the needs for the change and identifies the benefits to be realised and sets the framework for delivering the change (roles, responsibilities, governance structure). But, there are specific milestones with significant impacts that must be well managed to ensure the project can continue successfully. These are outlined below.
2. **Unplanned changes:** Unforeseen changes are often captured from a risk perspective and strategies must be in place to direct efforts and activities if unforeseen events threaten the implementation of the project or the future operation of the assets. In addition to utilising the governance and management structure outlined above, ongoing management and testing of the risk register and mitigation strategies can help the implementing or operating organisations to manage unforeseen changes.

11.5.1 Planned changes to be managed

Table 40 below identifies the more significant changes that will need to be managed and how this will be done.

Table 40: Planned changes to be managed

| Planned change | Estimated timing | Management steps |
|---|--|--|
| Formation of the implementing governance arrangements - including new roles and responsibilities | Immediate | Part established for the Business Case process. Implementing organisations to agree roles and commit personnel. |
| 3 waters and road design and construction commencement | July 2018 | Undertake procurement procedure and assign key roles. Proactively manage construction impacts in coordination with the developer. QLDC is in process of recruiting a Senior Project Manager. |
| 3 waters infrastructure operations | As soon as construction commences. | Confirm training needs and arrangements for QLDC operations staff. |
| Roading construction and commissioning | Prior to construction commencing and the new road opening. | Notify impacted residents and motorists via various channels to outline changes and benefits. |
| Housing construction commencement and ongoing impact | Prior to Stage 1 subdivision release to market. | Deployment of building inspectors, implementation of impact management measures. |
| Future Business Cases and work streams that will be required to support the | Immediate Action Plan | Initiate the following work: |

| Planned change | Estimated timing | Management steps |
|--|---|--|
| necessary State Highway relief interventions. | | <ul style="list-style-type: none"> - Monitoring of build rates, traffic growth rates and effectiveness of interventions - Ladies Mile corridor planning - Shotover Bridge and alternatives - Park and Ride - Public Transport - Mass Rapid Transport - District Plan controls |
| Maintenance contract extension | Negotiate prior to start of house construction. Needs to start of Day 1 of residents moving in. | Negotiate contract change and educate users where changes apply. |
| Rubbish collection extension | Negotiate prior to start of house construction. Needs to start of Day 1 of residents moving in. | Negotiate contract change and educate users where changes apply. |
| Roading network change | Negotiate prior to start of house construction. Needs to start ahead of Day 1 of residents moving in. | Negotiation of timing and delivery. |
| Benefits Realisation | From start of implementation | Allocate resource to monitor benefits. Identify ongoing benefits owner through each phase, including post implementation. Define procedure for ongoing reporting to MBIE for fund repayments. |

11.6 Cost and issues management

Issues will be identified by the Project Manager and raised with the Programme Manager and/or Project Control Group, with copy to the PCG. The PCG will then monitor the issue and ensure appropriate management actions are prescribed by the relevant Project Manager.

Any departures from scope, performance expectations or disputes not resolved at project delivery or control group level will be escalated to governance level for consideration. Any remaining disputes shall be resolved in accordance with the relevant, signed agreements.

QLDC will also agree the basis for issues management with MBIE as part of funding approval and the funding agreement, prior to signing the HIF loan. This will include the following elements:

- Confirmation that QLDC is lead organisation that is responsible for the overall project management, recovering costs from other parties.
- The total project cost, the total cost of each phase and the agreed division of these costs between each party, and what level of financial summary reports are required.

- The organisation responsible for reporting on project changes (QLDC).
- The organisation responsible for preparing and updating the economic analysis at key points.
- How the parties' separate interests are protected within the contractual arrangement.
- A risk-sharing and approvals procedure for any variations, contractual disputes, etc. (Escalation to governance group for resolution).
- The basis for accounting for the respective parties' costs associated with the project.

Once the funding arrangement is approved, QLDC' programme relies on no further approvals being necessary for HIF funding drawdown, beyond the following standard requirements.

- Project costs being within expected costs or manageable within HIF contingencies or alternative confirmed third-party funding.
- Independent safety audit, safety in design review, safety in maintenance review.
- Project scope remaining as set out in this case.
- MBIE may audit multi-party projects at any time to confirm that all accounting and reporting requirements are being met.

Council and all contracting parties will be required to submit monthly reports of all project costs and physical progress to the PCG during the design and construction phases. Reporting shall include costs and progress to date plus the anticipated forecast final cost and milestone/completion dates, with the risk being reviewed monthly.

11.6.1 Contingency Management

A contingency has been allocated within the funding application which aims to provide an offset for uncertainty that arises through design and development. If the contingency funding is required, this will be accessed through a request to the PCG, where it can be approved or escalated to the Governance Group.

11.7 Benefits Realisation

The benefits map shown in Section 4.3 demonstrates the way the agreed benefits will be measured.

For Ladies Mile, the targeted benefits and their realisation milestones are outlined in Table 41 below.

Table 41: Benefits realisation schedule for Ladies Mile

| Benefit | KPI | Measure | Target and date | Responsibility to track the benefits |
|--|-------------------------------|--|---------------------|--------------------------------------|
| Improved housing affordability | More low-cost houses | % of new houses less than 65% of the average sales price | 40% by 2027/28 | QLDC |
| Efficient and effective housing supply | Reduced infrastructure costs | Infrastructure costs per dwelling | \$14,000 by 2017/18 | QLDC |
| | Accelerated supply of housing | Number of new sections with resource consent | 1,100 by 2025/26 | QLDC |
| | | Number of new houses with code of compliance | 1,100 by 2027/28 | QLDC |

On a broader scale, QLDC will develop a Benefits Realisation Plan that sits across all HIF projects and monitors their progress in delivering the agreed benefits. This plan will be developed using NZ Treasury

guidance and templates. This plan will contain a benefits schedule that will be included in the reporting provided to the project PCG and also shared with the Governance Group as part of a wider district HIF summary.

The Benefits Realisation Plan will include:

- The Benefits Management Map.
- A detailed Benefits Profile, including details on each benefit, supporting KPIs, assumptions and how they will be measured and monitored.
- A benefits realisation schedule or roadmap.
- Roles and responsibilities including benefits owners.
- Significant milestones for post implementation reviews and transfer of benefits management responsibilities as part of a monitoring and reporting schedule.
- Links to outcomes and evaluation frameworks for QLDC and MBIE.
- Processes for determining the extent to which each project or program benefit is achieved prior to formal closure.

Where benefits are not being realised, an assessment will be completed to understand why not and whether the measures or reporting mechanisms need to be updated.

Figure 28 below (sourced from NZ Treasury Benefits Management Guidance), demonstrates how the Benefits Realisation Plan develops throughout the project lifecycle. For the development and delivery of this project, the emphasis will be on the development of the plan, the register and the reporting steps that track progress through implementation and embedding into BAU.

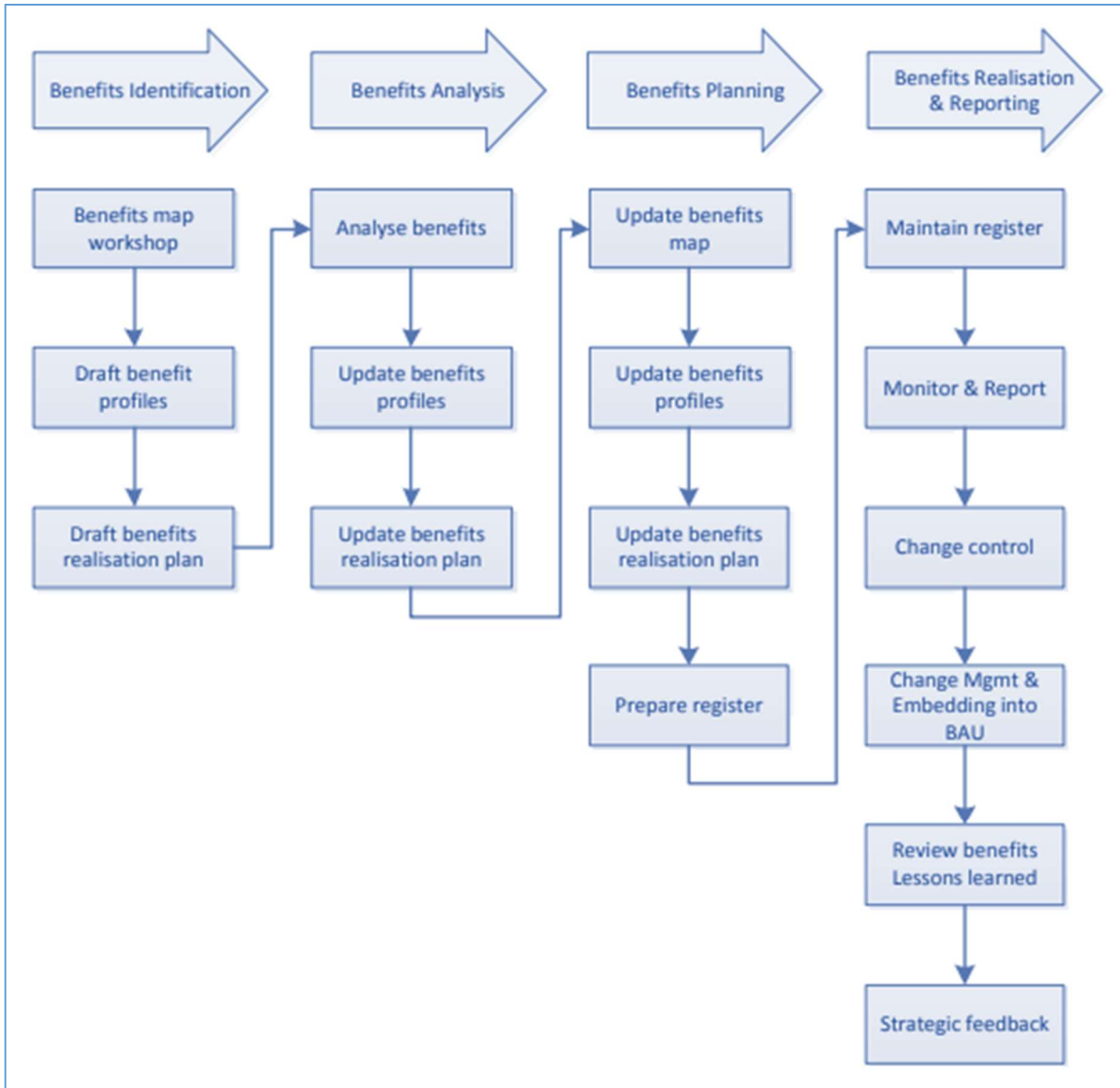


Figure 28: Process flow for benefits activities

11.8 Implementation Programme

A preliminary programme of works, including pre-implementation is included in Appendix 10, and a summary programme is shown in Figure 29 below.

| WORK PHASE | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-------------------------------|------|------|------|------|------|---|---|---|---|----|----|----|
| Detailed Business Case | | | | | | | | | | | | |
| Development Agreement | | | | | | | | | | | | |
| MBIE HIF approval | | | | | | | | | | | | |
| 3-Waters and Transport | | | | | | | | | | | | |
| Prepare scope of services | | | | | | | | | | | | |
| Tender for engineering | | | | | | | | | | | | |
| Resource Consent | | | | | | | | | | | | |
| Detailed design | | | | | | | | | | | | |
| Tender for construction | | | | | | | | | | | | |
| Construction | | | | | | | | | | | | |
| Subdivision | | | | | | | | | | | | |
| Detailed design | | | | | | | | | | | | |
| Subdivision Consents | | | | | | | | | | | | |
| Tender | | | | | | | | | | | | |
| Stage 1 construct (60 lots) | | | | | | | | | | | | |
| Tender | | | | | | | | | | | | |
| Stage 2 construct (115 lots) | | | | | | | | | | | | |
| Tender | | | | | | | | | | | | |
| Stage 3 construct (115 lots) | | | | | | | | | | | | |
| Tender | | | | | | | | | | | | |
| Stage 4 construct (115 lots) | | | | | | | | | | | | |
| Stage 5 construct (115 lots) | | | | | | | | | | | | |
| Stage 6 construct (115 lots) | | | | | | | | | | | | |
| Stage 7 construct (115 lots) | | | | | | | | | | | | |
| Stage 8 construct (115 lots) | | | | | | | | | | | | |
| Stage 9 construct (115 lots) | | | | | | | | | | | | |

Figure 29: High level implementation programme

11.9 Key milestones

Upon approval of the HIF funding and commencement of the project, a Project Execution Plan will be developed that will describe how, when and by whom the specific milestones and targets will be achieved. It will comprise a detailed analysis of how the identified targets, milestones, deliverables and infrastructure will be delivered to timescales, costs and quality. The significant milestones to be captured in this plan are presented in Table 42 below.

Table 42: Key Milestone Dates

| Activity | Target Date | No Later Than |
|---|--------------|---------------|
| Development Agreement signed | August 2018 | December 2018 |
| Loan & Funding Agreement signed by the Crown | August 2018 | October 2018 |
| Construction start of 3 waters and road | July 2019 | December 2019 |
| Practical completion of 3 waters and road | July 2020 | December 2020 |
| Lodge subdivision consent | October 2018 | December 2018 |

| Activity | Target Date | No Later Than |
|--|---------------|----------------|
| Award construction contract for Stage 1 | July 2019 | September 2019 |
| Release Stage 1 sections to market | November 2020 | January 2021 |

11.10 Stakeholder Engagement and Communications Plan

A stakeholder engagement and communications plan will be developed to support all QLDC HIF projects. This plan will leverage the strength of the Council's breadth of communications channels used and their active engagement programme. Following on from the Long-Term Plan consultation programme currently underway, this plan will provide agreed content and actions to ensure local audiences that may face impacts are engaged proactively while the wider community are kept up to date on what is happening and what benefit each HIF development will bring to the District. Use of the following channels is recommended:

- Targeted community briefing sessions for high impact areas.
- Distribution of letters or educational materials to targeted high impact areas to explain changes or developments.
- Targeted emails using rates databases.
- Broader social media and traditional media updates/releases.
- Updates in regular QLDC publications, such as Scuttlebutt (Scuttlebutt is QLDC's bi-monthly newsletter that goes out to residents and ratepayers).

12 Post-implementation monitoring

12.1 Monitoring and reporting approach and schedule

12.1.1 Project Implementation Review (PIR)

At the end of the project implementation, a Project Implementation Review will be completed. This will focus on lessons learned through the project and will be captured in a way that can be used meaningfully in the initiation of new projects of a similar nature.

12.1.2 Post Evaluation Review

A post implementation review will be scheduled after the project is completed. The focus for this review will be analysis of benefits realisation.

The Benefits Realisation Plan will provide the platform and schedule for monitoring project outcomes post-implementation. Once the HIF project and programme governance structures for implementation are dissolved, ongoing monitoring and reporting should occur within QLDC's traditional organisational structure until the HIF is repaid in full.

As the benefit and asset owner in a BAU sense, QLDC will be responsible for monitoring the performance of the new assets and the benefits they bring to the district. The results of the monitoring will be provided to MBIE for the period that the loans remain drawn.

Appendix 1 – Queenstown House Prices Sales

Table 43: Queenstown Lakes District Residential Sales³² in the 3 months prior to 15/11/2017

| Suburb (and distance from Queenstown) | House Sales | | Flat Sales | | Section Sales | |
|---------------------------------------|-------------|-------------------|------------|-------------------|---------------|-------------------|
| | Number of | Median Sale Price | Number of | Median Sale Price | Number of | Median Sale Price |
| Makarora (150 mins) | 1 | \$439,000 | | | 1 | \$183,300 |
| Glenorchy (46 mins) | 1 | \$469,000 | | | 1 | \$250,000 |
| Kingston (46 mins) | 4 | \$478,500 | | | 1 | \$200,000 |
| Luggate (75 mins) | 3 | \$514,000 | | | 1 | \$249,000 |
| Ben Lomond (7 mins) | | | | | 1 | \$540,000 |
| Queensberry (69 mins) | 1 | \$603,000 | | | | |
| Fernhill (7 mins) | | | 6 | \$629,500 | | |
| Lake Hawea (120 mins) | 5 | \$637,000 | | | 2 | \$243,500 |
| Gladstone (87 mins) | 1 | \$735,000 | | | | |
| Sunshine Bay (7mins) | | | 1 | \$752,000 | 1 | \$325,000 |
| Lower Shotover (17 mins) | 3 | \$769,000 | | | 5 | \$280,000 |
| Arthurs Point (7 mins) | 3 | \$807,000 | | | 1 | \$875,000 |
| Lake Hayes Est. (20 mins) | 7 | \$868,000 | | | 2 | \$313,750 |
| Lake Hayes (21 mins) | 5 | \$886,000 | | | 3 | \$840,000 |
| Albert Town (70 mins) | 3 | \$939,500 | | | 1 | \$330,000 |
| Arrowtown (21 mins) | 5 | \$954,000 | 2 | \$697,500 | 1 | \$800,000 |
| Wanaka (70 mins) | 26 | \$1,060,500 | 3 | \$752,000 | 6 | \$544,130 |
| Jacks Point (21 mins) | 7 | \$1,085,000 | | | 8 | \$409,000 |
| Kelvin Heights (20 mins) | 1 | \$1,385,000 | | | | |
| Frankton (16mins) | 1 | \$1,410,000 | 2 | \$730,500 | | |
| Queenstown (0 mins) | 9 | \$1,687,000 | 8 | \$704,500 | 4 | \$822,500 |

³² Information from QV

Appendix 2 – Long List

Appendix 3 – Multi Criteria Analysis (MCA)

Appendix 4 – Ladies Mile Indicative Masterplan

Appendix 5 – Land Ownership

Appendix 6 – Cost Estimates

Appendix 7 – Engineering Report and Drawings

Appendix 8 – Supporting Financial Analysis

Appendix 9 – Risk Register

Appendix 10 – Preliminary Programme

Appendix 11 – Register of review comments and amendments