rationale > IMPROVING INFRASTRUCTURE OUTCOMES

Queenstown Town Centre Parking

Indicative Business Case

QUEENSTOWN LAKES DISTRICT COUNCIL

October 2017

Document Title:

Queenstown Town Centre Parking Indicative Business Case

Prepared for:

QUEENSTOWN LAKES DISTRICT COUNCIL

Quality Assurance Statement

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Document Control History

Rev.	Date	Revision Details	Prepared by	Reviewed by	Approved by
1.1	September 2017	First draft for internal review	Ben Smith	Adam Feeley	Tom Lucas
2.0	September 2017	First draft for QLDC review	Ben Smith	Adam Feeley	Tom Lucas
2.1/2.2	September 2017	First QLDC revision	Ben Smith	Tom Lucas	Edward Guy

Current Version

Rev.	Date	Revision Details	Prepared by	Reviewed by	Approved by
2.3	October 2017	2nd QLDC revision	Ben Smith	Tom Lucas	Edward Guy

Please note that this document uses A4 and A3 pages in both portrait and landscape formats. Please account for this when printing to provide the best possible readability.

File path: Https://Rationaleltd.Sharepoint.Com/Shared Documents1/Clients/QLDC/Jobs/J000621 - QT TC Parking IBC/4 Working/Full Business Case/QT TC Parking IBC Full Case 2.3Docx

Contents

Glossary of Terms

Abbreviation	Term
CALM	Central Area Logistics Model
CBD	Central Business District
ILM	Investment Logic Map
KPI	Key Performance Indicator
LTP	Long Term Plan
NZTA (or the Agency)	New Zealand Transport Agency
ORC	Otago Regional Council
PBC	Programme Business Case
IBC	Indicative Business Case
PC	Plan Change
PT	Public and Passenger Transport
QLDC	Queenstown Lakes District Council
RMA	Resource Management Act
SH(#)	State Highway (number)
QITPBC	Queenstown Integrated Transport Programme Business Case
QAC	Queenstown Airport Corporation
MCA	Multi Criteria Analysis
ITS	Intelligent Transport Systems

Executive Summary

Document status and purpose

This Queenstown Town Centre Parking Indicative Business Case is part of a wider programme of projects that form a Masterplan Programme for the Queenstown Town Centre. This programme brings together a set of business cases to describe an integrated investment story. These business cases and frameworks are focused on the following:

- Public and Passenger Transport
- Parking
- Town Centre Arterial Routes
- Spatial Framework and Public Realm
- Community and Civic Facilities, including the development of a Community Heart.

Background

The Queenstown Lakes District Council is leading a multi-disciplinary team to identify and address the challenges facing the Town Centre through a Masterplan. The Masterplan is a 35-year vision that sets the direction for the future of the Queenstown Town Centre.

The Queenstown Lakes District is currently experiencing significant and unpredicted population, traffic, residential and tourism growth. Projected visitor growth is significant. Long range forecasts predict that domestic visitors will double and international visitors will nearly triple by 2026.

In the last year alone, tourism spending in this district contributed $2.5b to the national economy, which is over 8% of the national spend. This has resulted in rapid urban development and associated growth tensions that are impacting the way the Town Centre operates, the experiences it provides and its ability to be a huge drawcard for New Zealand tourism.

Access to the Town Centre is a major challenge with significant congestion on the arterial routes, very low use of public transport, inefficient parking and an ad hoc approach to passenger transport contributing to a very constrained and dysfunctional transport network. The state of this network supports car domination and this is reducing the Town Centre's ability to be a walkable, social and engaging area.

Town centre parking has a big role to play in meeting this challenge.

Improved parking solutions can support growth while also acting as a lever to encourage a much-needed increase in public and active transport use.

Parking facilities developed in the right places and managed in the right way can also help attract traffic to the town centre fringes, encouraging people to walk rather than drive to the town's attractions.

The diagrams below demonstrate how changes in parking, arterial upgrades and public and passenger transport improvements can all contribute to improved access to and experiences in the town centre.

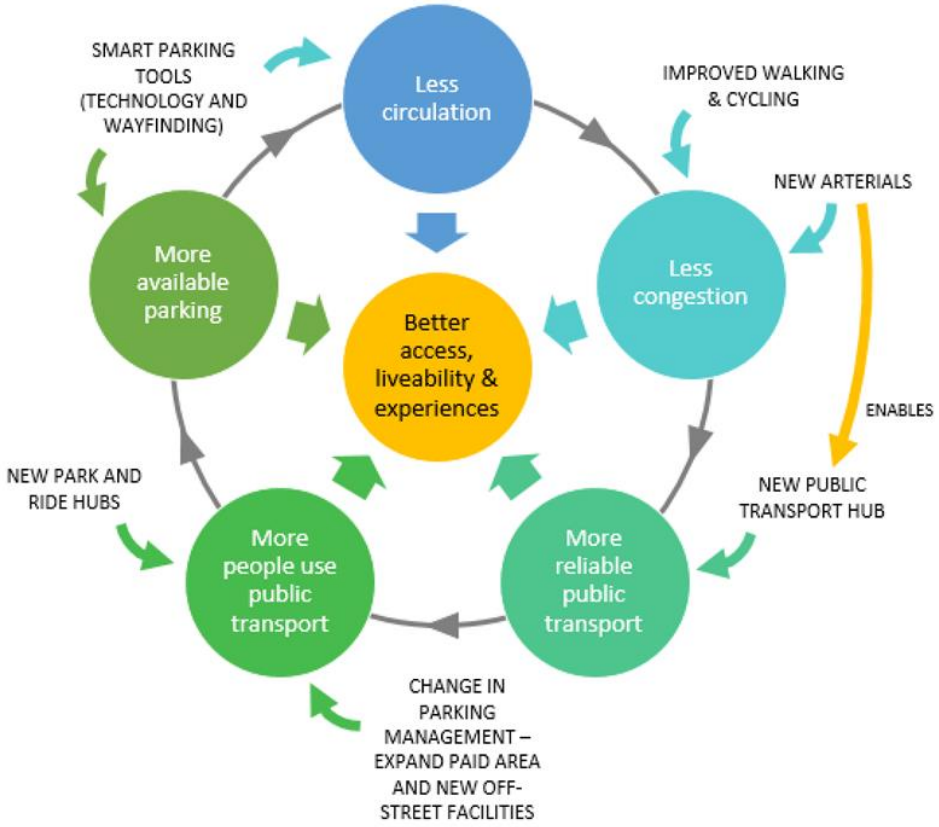

Figure 1: How integrated transport solutions can provide better town centre experiences

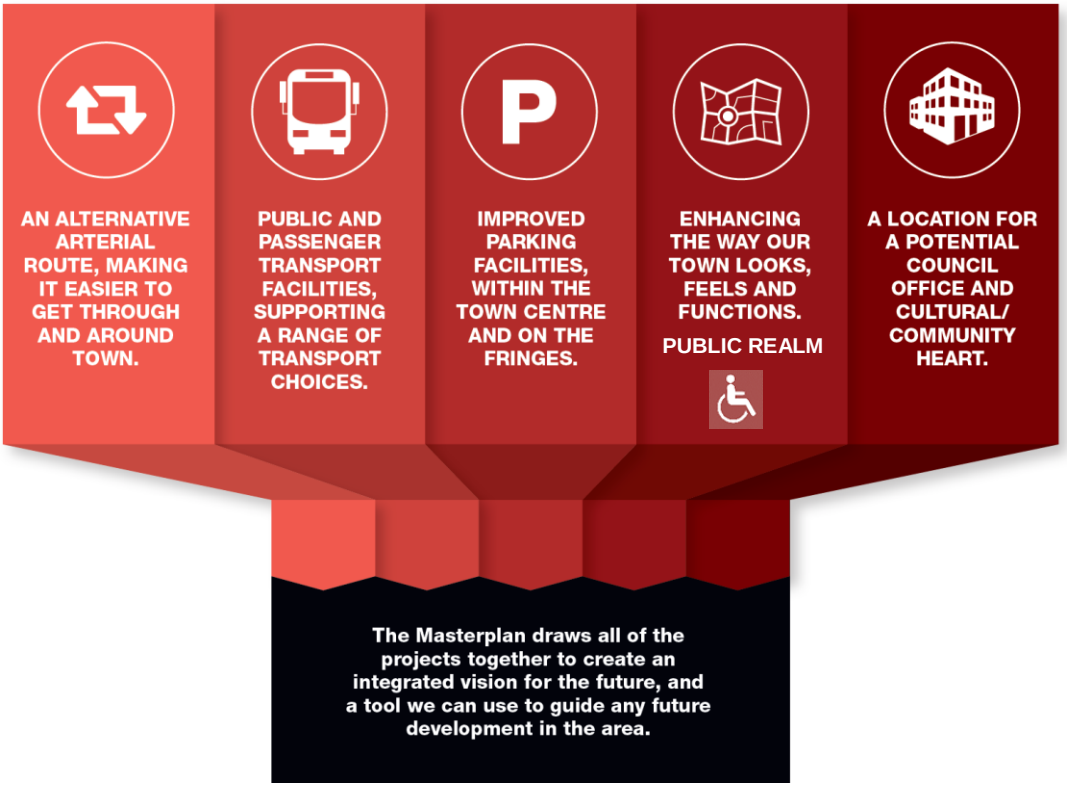

Figure 2: How the masterplan projects come together to guide future development

Problems – why investment is needed

The need to address town centre parking has been recognised since the *Queenstown Transportation and Parking Strategy Study (2004)* and the *Future Links Strategy (2005)* and it consistently rates as the most pressing item to improve in community and visitor surveys.

This Indicative Business Case builds on the need for investment in parking improvements in Queenstown's town centre. The problems and benefits agreed for this programme remain consistent with the Investment Logic Map (ILM completed at a stakeholder workshop in March 2017).

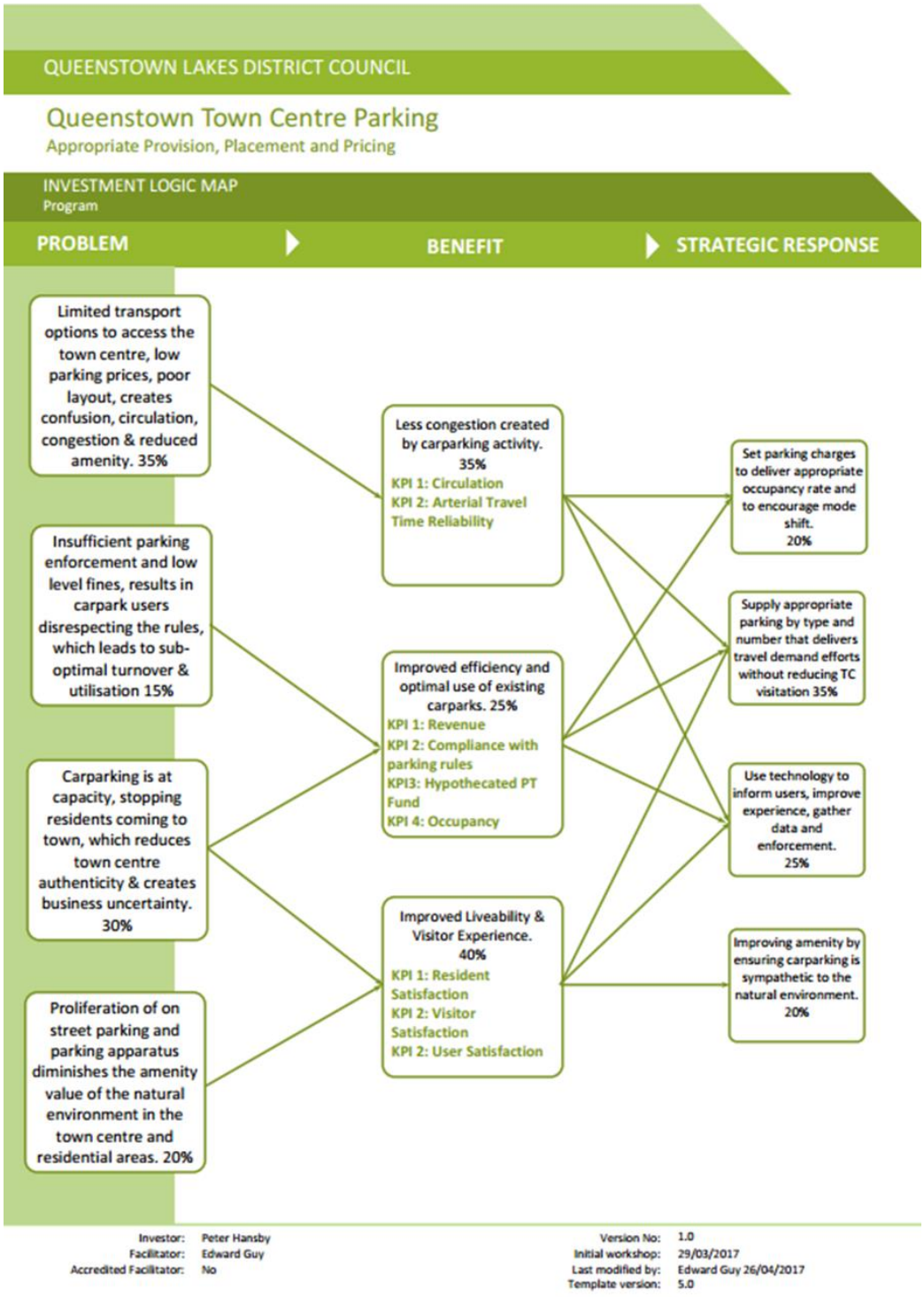

Figure 3: The Queenstown Town Centre Parking ILM

The evidence

The key areas of evidence that support this Indicative Business Case (IBC) are as follows:

- The current parking inventory is at capacity during peak times. Recent surveys show availability of town centre parking to be at around 90% full at 1pm.
- Traffic circling in search of parking in the town centre is contributing around 30 per cent of the congestion in the area.
- The estimated cost of congestion in Queenstown in 2016 was $35 million and this is forecast to more than double in the next 30 years.
- The lack of available parking in the town centre is negatively impacting resident and visitor experiences (see visitor and resident survey results in section 4).
- There are significant amounts of free and cheap parking in the town centre with limited time restrictions. This does not encourage people to use alternative modes of transport.
- The current low infringement charges and parking restrictions do not deter non-compliance.
- Driving into the town centre is more convenient than taking a bus due to the current high bus ticket price and lack of service frequency (see visitor and resident survey results in section 4).

The Economic Case

A wide set of potential alternatives and options to address problems were considered. From this a longlist of 8 options were evaluated and cut down to a shortlist of 3. Through detailed analysis, a preferred programme has been identified.

The preferred programme (Programme 6), was found to be the best balance of activities that has the potential to deliver an efficient and effective solution to the parking problems. This programme includes:

- **Parking enforcement measures** including increased personnel, parking information systems to assist enforcement and increased parking penalties.
- **Marketing and communications** to enable better understanding of the parking and wider transport options, including tourist information, maps, website information, airport and hotel marketing.
- **Demand management initiatives** including increased parking charges to increase mode shift and optimise occupancy rates, less free parking, subsidising public transport (hypothecated fund) and variable charges based on facility, capacity, and time-based demand.
- **Intelligent transport systems** including the delivery of systems (or a single application) to provide real time information, parking information, remote booking/purchasing, parking availability and mobility that is in sequence with intelligent signage systems (to show availability and pricing).
- **On-street parking changes** including reduction of on-street parking in the town centre, supporting a pedestrian/walking focus, reduced free all-day parking in the area of influence, and resident parking schemes.
- **Off-street parking changes** to provide for future growth and offset the reduction in on-street parking due to other masterplan projects, upgrades and new developments are proposed around the town centre fringes. These changes will aim to draw traffic directly from the arterials and encourage drivers to park in these areas and walk into the town centre, reducing the number of cars and congestion in the town centre streets. These changes include a general increase in off-street capacity through enhancement of existing parking sites at Boundary Street, Ballarat Street and Stanley Street, Warren Park and repurposing of Athol Street and Queenstown Gardens parking, bike parking and the 350 new parks at Skyline. To manage affordability, QLDC is considering delivery of the proposed new buildings in a cost-neutral way through a private partnership to design, build and operate these facilities.
- **Integrated park and ride** facilities and services for commuters, visitors and campervan drivers.
- **User type management actions** including commuter, shopper, events and visitor demand management, tourist operator pick up and drop off areas, coach layover, public transport layover, special needs facilities, and dedicated freight and delivery spaces.

- **Additional bike parking** is proposed in strategic locations around Queenstown. This will comprise a combination of covered and uncovered parks with necessary crime prevention features, intended to encourage modal shift. As the numbers of E-Bikes (electric bikes) grow, we expect this would reinforce the demand for formal bike parking. QLDC is aiming to provide a level of town centre preference for activate travel as compared to private vehicle use. While it will be developed further in the detailed business case, the general approach puts walking at the top, cycling second, followed by public and passenger transport next and private car use next.

The economic viability of this programme has been assessed through a Benefit Cost Ratio analysis. This analysis considered parking improvements as part of an assessment of the Masterplan programme that achieved a Benefit Cost Ratio (BCR) range of 2.5-4.7.

This programme is also scalable and flexible in its delivery timing to allow for the impacts of disruption. QLDC is mindful of the effects that developments in technology may have on parking behaviours and this mix of activities can adapt both through delivery timing and the proposed design of new parking buildings (which are proposed to be designed to allow changed use in the future). Primary considerations in this area are the uptake of autonomous vehicles and the use of transport/movement as a service.

The Commercial Case

The Commercial Case highlights the depth of market capability to deliver parking buildings and technology solutions as required by this project.

The procurement strategy focuses on acquiring services to support the detailed business case as the first phase. The second phase involves using QLDC's procurement processes (and complying with investor requirements) to get the services required to deliver the programme, including potentially engaging parking facility and technology partners. This phase also considers the efficiencies that can be gained by using common providers for technology solutions in parking and public transport and private development.

The consenting and property strategy focus on making use of land that is currently owned by QLDC, identifying any need to change its use and proactively starting the consenting and designation process.

The Financial Case

The preferred programme cost is in the order of $57 million, but around $43 million of this is attributed to the new parking buildings which may be funded and operated by a private company (cost neutral to Council).

The current cost breakdown is shown below.

Table 1: 10-year programme costs by type

Cost type	10-year total
Detailed Business Case/ Parking Strategy	$100,000
Parking Interventions/Technology (Phase 1)	$5,425,000
Parking Interventions/Technology (Phase 2)	$8,298,000
Parking Buildings (may be funded privately)	$42,920,000
	$56,743,000

The funding arrangements proposed include:

- A private operator potentially funding the new parking buildings establishment and operations.
- Park and Ride developments may be eligible for a NZTA subsidy given their role in supporting a public transport system.
- QLDC are expected to fund on-street and inventory management changes.
- At this stage, QLDC are assumed to be funding the technology programme, with potential partners in NZTA and ORC.

- There may be some opportunity for this programme to benefit from an investment from Central Government, particularly where it can be demonstrated to address issues and provide significant benefits in Tourism.

The Management Case

An alliance with NZTA and ORC is proposed be used to oversee transport related projects as part of the wider masterplan programme. Underneath this Alliance, a standard management structure is proposed, including a project control/steering group. Given the role that parking plays in the integrated transport elements, it needs to stay connected to the alliance activities.

The high level of community engagement is proposed to be continued, ensuring engagement is maintained and there are no surprises when parking arrangements begin to change.

Project benefits will be further developed through the detailed business case phase and progress in realising benefits should be captured in the regular project reports.

The detailed risk register in place today will be supported by a Risk Management Plan.

A Change Management Plan will also be applied to manage significant changes from a programme level.

1 The Strategic Case (Strategy)

This Indicative Business Case (IBC) asks decision makers to consider proposed options to improve parking in Queenstown town centre, in the context of the Town Centre Masterplan programme.

This case outlines how a set of options were created to solve the parking problems affecting the area. The project team are seeking endorsement to continue detailed analysis of the preferred programme to develop a Detailed Business Case.

In summary, the IBC:

- revisits the strategic context and indicative assessment profile for the proposed investment
- re-examines the evidence base for the key problem or rationale for investing
- demonstrates how the potential benefits of investing may be measured with a range of KPIs
- demonstrates a collaborative approach to option development and selection
- considers a range of activities and presents an optimal programme to achieve the outcomes
- outlines the indicative commercial strategies to deliver the project
- demonstrates the affordability of the programme and potential funding strategies
- outlines indicative management strategies that can be applied for the implementation and evaluation of the project.

2 Strategic Case (Activity)

2.1 Current Situation

2.1.1 Parking Inventory

As part of the Queenstown Strategic Transport Model upgrade, the Parking CALM module has been included. This has been calibrated using the 2017 Parking Survey undertaken by MWH. The CALM parking model includes the following parking types within the area shown below, including:

- private off-street commercial (free parking, such as that provided by an employer)
- public free parking
- public free time restricted
- public paid parking.

In addition, the model includes elasticises for parking changes to reflect changes in parking charges.

Table 2: Existing 2016 parking spaces by type

Year	Total Parking	Private off-Street Commercial (free) parking	Public free all-day parking	Public free time restricted	Public Paid Parking
2016	5,605	1,736	2,373	572	924
Proportion	100%	31%	42%	10%	16%

Figure 4: Queenstown Strategic Transport Model – Parking Zones Map

2.1.2 Off Street Public capacity and occupancy

There are eight key off street public parking locations in the Queenstown Town Centre which were surveyed in March 2017 by MWH consultants to determine the capacity and occupancy (at 7am, 10am and 1pm) of each. It is noted that some of these locations, most notably the Man Street car park include a significant

number of leased parks in addition to paid public spaces. A summary of the observed capacity of each and occupancy by time of day is shown below.

Table 3: Off-street car parking capacity and occupancy

Off Street Facility	Original Capacity	7am Occupancy	10am Occupancy	1pm Occupancy
Athol Street	46	8	37	44
Ballarat Street	102	10	101	101
Boundary Street	162	20	157	153
Brecon Street	42	26	26	23
Church Street	152	27	149	152
Man Street	498	230	370	420
Queenstown Gardens	78	2	71	75
Recreation Ground	53	32	47	49
Total	1133	355	958	1017

2.1.3 Parking Fees and Restrictions

Inexpensive or free parking is available across much of the Queenstown town centre and parts of the CBD, including Shotover Street and Athol Street. Examples are outlined below:

Table 4: Current parking fees and restrictions

Name	Cost details
Boundary Street / Gorge Road carpark	$2.50 per day or $0.50 per hour $12.50 per week Frequently used by commuters if they cannot find a space on the streets.
Campervans	Charged at the same price as cars but take up twice as much land space, charging per vehicle not per the space they occupy. 33 campervan parks have recently been added to the Boundary Street carpark to encourage campervans away from the town centre where their size is a problem on the often tight and constricted roads.
Man Street car park	Current prices are as follows: • Mon-Sun 0530-030 = $3 per hour up to $18.00 for 12 hours • Mon-Sun 0030 – 0530 = $2 per hour up to $18.00 for 12 hours
Athol Street car park	$2 per hour, max stay 4 hours
Ballarat Street car park	$1 per hour (no time limit) $40 per week
Church Street Carparking	$4 per hour $12 per day
QLDC operated pay and display in the CBD	Generally, $2 per hour from 8:00 am or 9:00 am to 6:00 pm Monday to Sunday excluding public holidays.

Name	Cost details
QLDC	QLDC has recently leased 30 carparks within the private carpark at Man Street to allow more public vehicles to use the Church Street carparking.

2.1.4 Enforcement

Insufficient parking enforcement and low-level fines, results in carpark users disrespecting the rules, which leads to sub-optimal turnover and utilisation. Parking fines are currently $12 for exceeding the time limit. This is very low, particularly for overseas visitors with a strong currency. Some signage is in poor condition, which puts the validity of the restrictions into question. QLDC currently employs three enforcement officers to cover the town centre area, which allows a limited level of active enforcement.

2.1.5 Town Centre Parking Initiatives

Several parking initiatives, adopted by QLDC in June 2016 and since implemented, include:

1. 'No return within one hour' restriction across the CBD introduced in August 2016. This divided the CBD into ten zones and inhibits parking within the same zone for one hour after the first parking period has expired. This change was made to address the practice of people who swap parks throughout the day, effectively meaning that they park in the CBD all day in parks designated for short-term parking. QLDC recognises that some people need to come into town on multiple occasions throughout the day, and therefore the exclusion period was set at one hour.
2. Prohibiting large campervans from parking in the CBD through provision of alternative parking areas.
3. Loading zones changed to dual purpose loading zone / taxi stands.
4. Clearer signage to ensure drivers know the difference between loading zones and short-term parking.
5. Buses parking in lower Beach Street and beyond Steamer Wharf on Lake Esplanade are allowed a longer stay of 60 minutes between 6 pm and 10 pm, with a 15-minute restriction during the day. Parking for smaller buses is now allowed in lower Beach Street beside Earnslaw Park in what was previously a loading zone.

Other initiatives recently introduced include:

- A trial of 15-minute restrictions in areas of the CBD between the hours of 3 pm and 6 pm to increase availability for people picking up and returning ski gear during the winter season.
- A 12-month trial extending the evening enforcement hours from 6 pm until 9 pm to understand the impact on parking availability (October 2016 to October 2017).

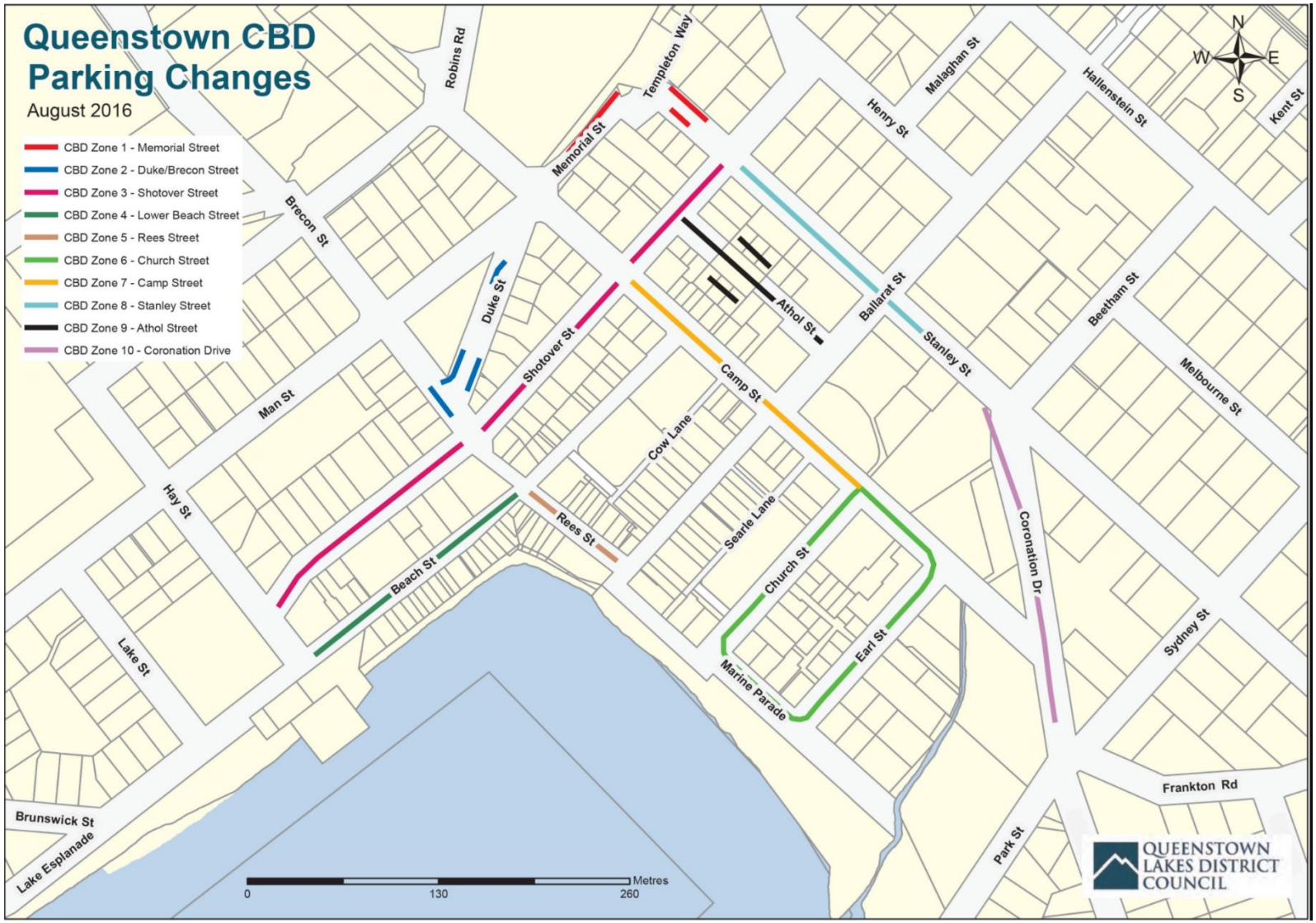

Figure 5: CBD Parking Zones Plan (Source- QLDC Website)

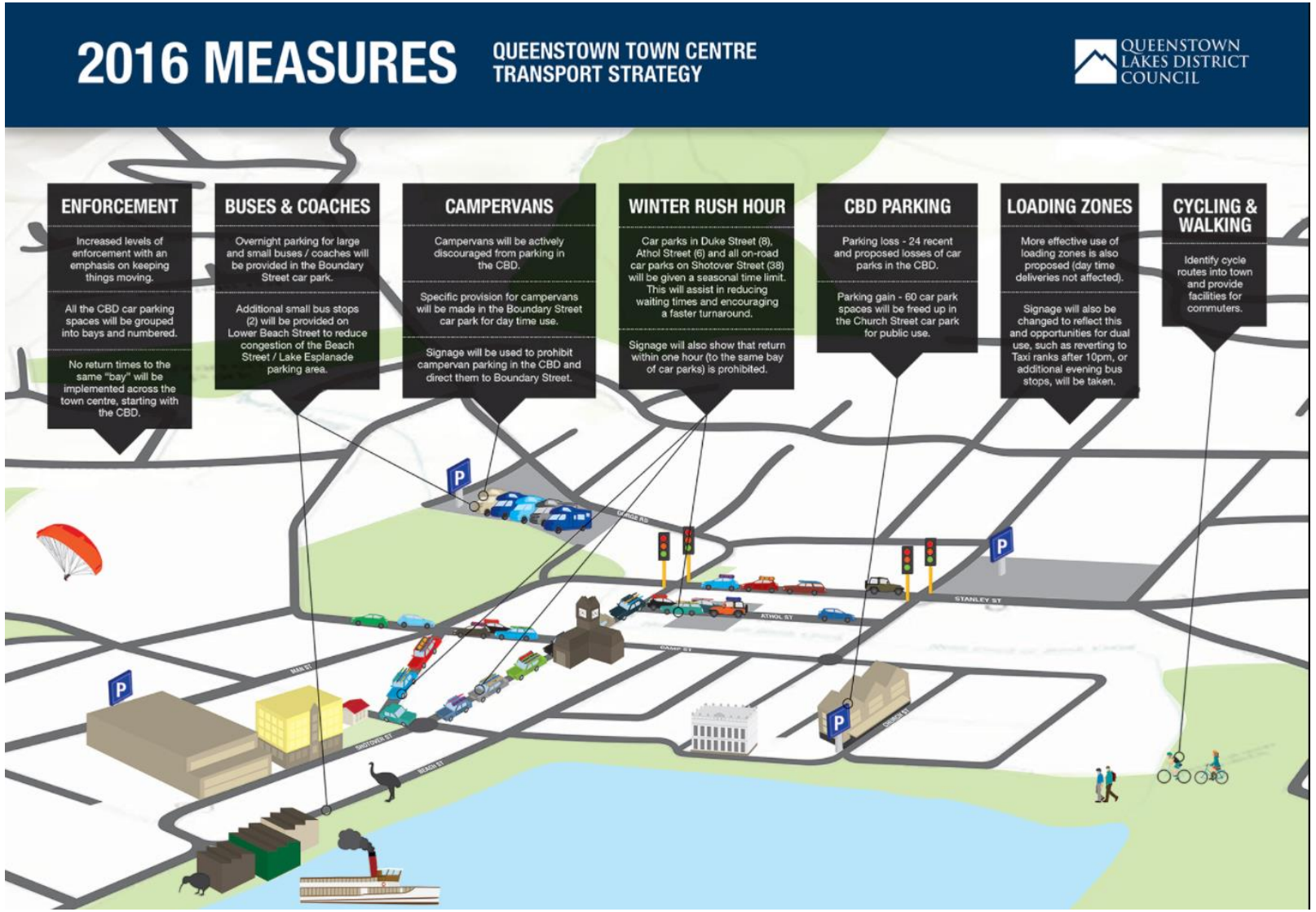

Figure 6: Queenstown CBD 2016 parking changes

2.1.6 Parking pricing changes

QLDC is introducing a new parking regime on 12 December, 2017 as a first stage, with a second stage to follow in late March 2018. These changes have been made to coincide with the introduction of a vastly improved Queenstown public transport service with an all-important $2 fare, which will launch across the Wakatipu Basin on 20 November 2017, in partnership with Otago Regional Council and the New Zealand Transport Agency.

This is the first increase to parking fees in seven years and is regarded as very low. Following the introduction of the new bus fares and routes, these parking changes will be phased in from early-December through to March 2018. The first phase will begin 5 December 2017 and will increase parking fees across the Queenstown CBD. This applies to hourly, daily and weekly rates in all Council-owned carparks. From 31 March 2018, there will no longer be an option for daily or weekly rates, with a maximum 10-hour stay applying to most carparks, nor will there be free all-day parking in areas like the Queenstown Gardens and One Mile car parks. Parking will also be prohibited on road verges.

QLDC, ORC and NZTA have aimed to make the bus as attractive as possible through the $2 bus fare. At $4 a day for a return trip, the bus is considerably cheaper than driving even a short distance and parking all day at current prices. For example, parking in the Gorge Road Carpark is currently $2.50 a day and when you add on fuel costs and car maintenance, not to mention the convenience of the bus – the economics stack up quickly in favour of public transport. The state of town centre parking pricing when this change occurs is shown below.

Location	Monday- Sunday (Existing)	Monday – Sunday (Interim) Stage 1 – 12 December 2017	Monday- Sunday (Final) Stage 2 – 31 March 2018
Athol Street	9am - 9pm $2/hr Max 4hrs	9am - 9pm $4/hr Max 4hrs	9am - 9pm $4/hr Max 4hrs
Camp Street	9am - 9pm $2/hr Max 2hrs	9am - 9pm $4/hr Max 2hrs	9am - 9pm $4/hr Max 2hrs
Earl Street	9am - 9pm $2/hr Max 2hrs	9am - 9pm $4/hr Max 2hrs	9am - 9pm $4/hr Max 2hrs
Marine Parade	9am - 9pm $2/hr Max 2hrs	9am - 9pm $4/hr Max 2hrs	9am - 9pm $4/hr Max 2hrs
Memorial Street	8am - 9pm $2/hr Max 1hr	8am - 9pm $4/hr Max 1hr	8am - 9pm $4/hr Max 1hr
Stanley Street	8am - 9pm $2/hr Max 1hr	8am - 9pm $4/hr Max 1hr	8am - 9pm $4/hr Max 1hr
Coronation Drive	8am - 9pm Free Max 2hrs	8am - 9pm $4/hr Max 2hrs	8am - 9pm $4/hr Max 2hrs
Ballarat A	8am - 6pm $1 Max 10 hrs $40.00/Week, 7 Days	8am - 6pm $2/hr Max 10 hrs $80.00/Week, 7 Days	8am - 6pm $2/hr Max 10 hrs
Ballarat B	8am - 6pm, $1/hr Max 10 hrs $40.00/Week, 7 Days	8am - 6pm $2/hr Max 10 hrs $80.00/Week, 7 Days	8am - 6pm $2/hr Max 10 hrs
Ballarat C	Permit holders only	Permit holders only	8am - 6pm 2/hr Max 10 hrs
Ballarat Street	8am - 6pm, $2/hr Max 1hr	8am - 6pm, $4/hr Max 1hr	8am - 6pm, $4/hr Max 1hr
Boundary Street	8am - 6pm, $0.50/hr Max 5 Hrs $2.50 All Day, Max 10 Hrs $12.50/Week, 7 DAYS	8am - 6pm $1/hr Max 10 Hrs $5.00 All day, Max 10 hrs $25.00 / Week, 7 Days	8am - 6pm $1/hr Max 10 Hrs
Recreation Ground	8am - 6pm $0.50/hr Max 5 Hrs $2.50 All Day, Max 10 Hrs $12.50/Week, 7 DAYS	8am - 6pm $1/hr Max 10 Hrs $5.00 All day, Max 10 hrs $25.00 / Week, 7 Days	8am - 6pm $1/hr Max 10 Hrs
Church Street (Covered)	$2/hr $5 Early bird $10 Maximum daily rate	$4/hr $10 Early bird $20 Maximum daily rate	$4/hr

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Figure 7: Town Centre parking from 12 December 2017 and 31 March 2018

2.1.7 Car Pool Scheme

QLDC has recently reviewed the ride share / car pool scheme as a potential option for reducing the number of vehicles in the CBD and the resulting pressure on parking. The report resolutions in November 2016, provide details on various options including location of carparks and costs.

The main Council resolution was to "*Revise the existing scheme, including – incorporation of amended rules, introduction of an administrative fee, and retention of the existing parking provision (spaces) for the scheme*."

Whilst this initiative has been implemented, its success to date has been limited. This supports the view that the convenience and perceived lower cost of using private cars is still the preferred option for travel to the town centre.

2.1.8 Park and Ride Scheme

QLDC undertook a Park and Ride Survey in 2016 to which there were 428 respondents from across the district. The aim of the survey was primarily to determine the need for a park and ride facility.

Key points taken from the feedback are as follows:

1. Potential locations need to be assessed to maximise use and to provide links to other services.
2. Park and ride will not suit everyone; a wide range of operating hours and high frequency of shuttles would be needed to accommodate the mix of employment/enjoyment hours.
3. The bus fare needs to be lower. Public transport is currently seen as expensive and parking, although limited in Queenstown, is still cheap or free.

3 The Problems

As outlined in the Parking Strategic Case completed in May 2017, specific parking issues were identified during a parking stakeholder workshop in March 2017 and are summarised in the table below. These comments are listed as they were said in the workshop.

Table 5: Parking issue statements

ILM Problem	Issues	Discussion
PRICES		
1	Prices are below market rates (especially with minimal time restrictions), which leads to high demand for parking with no incentive to use alternative modes of transport.	Low prices/charges lead to higher demand, which leads to more traffic entering the town centre, more circling to find a vacant space, and consequently increasing congestion.
1	People do not want to pay market rates in private parking facilities, leading to drivers circling the town centre looking for council parks.	
INFORMATION		
1	Lack of waymarking signage to indicate where parking is, availability, type – which causes unnecessary circulation.	Results in more circling to find a vacant space and consequently increasing congestion.
1,3,4	Lack of legibility and intuitive locations means people continue to search.	
ENFORCEMENT		
2	Enforcement - cost of infringement fines is relatively low at $12 and is not high enough to encourage people to comply.	With carparks at or near capacity, and with relatively low fines and levels of enforcement, people are not deterred from parking illegally.
2	Misuse of bus stops and loading zones is also a problem – it causes delays for public and passenger transport operators.	
PLANNING & MANAGEMENT		
3	Planning – lack of alignment between Council teams.	Need an integrated approach to identifying solutions. Stand-alone studies and projects in the past have not had the desired positive impact.
3	Management – we are not making the most of what we've got in the meantime.	
3	Planning – changes occur in an ad hoc fashion, not long-term. Squeaky wheel.	
3	The town centre is more experiential not transactional requiring a different type of demand but we're not changing.	
1,3	Collaboration between parking providers is limited – public and private.	
1,3	Personal productivity is reducing due to car parking search and walking.	A lot more time searching for parking spaces, adding to congestion (see cost of congestion in section 2.3)
DEMAND		

ILM Problem	Issues	Discussion
3	Parking demand – continues to grow and we are at capacity, including Man Street.	No incentives to encourage alternative mode choice (public and passenger transport / walking / cycling). Commuters are using parking spaces for the working day. This does not support the more transient and short-term nature of visitors parking or locals who are visiting town. Cost of public transport exceeds that of parking and is considered less convenient. Commuters could be a prime target market for the new bus system if parking charges and restrictions are less attractive.
3	The lack of alternative modes continues to drive demand.	
3	Commuters are consuming much of the valuable parking spaces.	
1,3	Behaviour change to alternative transport modes is slow, which continues to drive parking demand.	
1	Lots of free parking within 5-minute walk of town centre – people are parking in residential areas.	
AESTHETICS / LAYOUT		
1,4	Parking search is diminishing the town centre experience/aesthetics.	People are recognising that public areas can offer an alternative, more attractive use from an amenity and economic perspective, than on-street parking and the associated infrastructure such as signage and parking meters.
1,4	Parking is consuming the public realm that potentially has a higher valued use.	
1,4	There are too many on-street parking options meaning it's not simple.	
4	On-street parking infrastructure/apparatus are ugly.	

The Town Centre Parking ILM shown below reflects the parking issues above and conversations from the stakeholder workshop held on 29 March 2017.

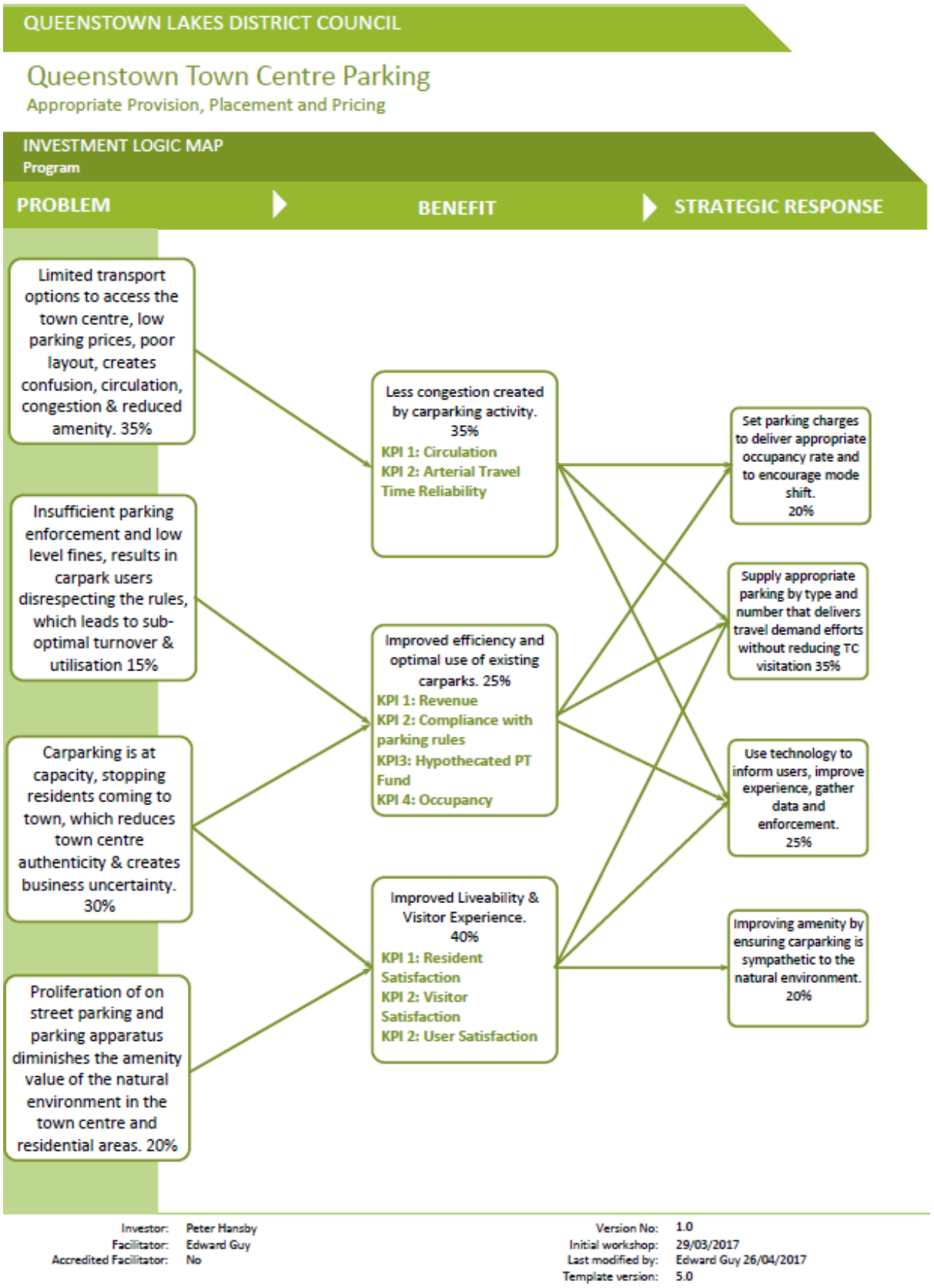


Figure 8: Queenstown Town Centre Parking Investment Logic Map

4 The Evidence

4.1 Status of the evidence

Due to the recent completion of the Strategic Case (May 2017), the evidence previously presented is still current and is summarised below.

The case for change is justified through evidence that the demand for parking is increasing. The growing number of residents and visitors has led to an increase in traffic and congestion in the town centre. This then contributes to a conflict between vehicles and pedestrians, and reduced liveability in the town centre.

The key areas of evidence that support this Indicative Business Case (IBC) are captured below:

- The lack of available parking in the town centre in peak periods is contributing to congestion through circling in search of a parking space.
- The dominance of cars in the town centre is negatively impacting resident and visitor experiences.
- The current parking inventory is at capacity during peak times.
- Growth in population and visitors is putting significant pressure on transport infrastructure, including parking inventory and the enabling roadways.
- Traffic circling in search of parking in the town centre is contributing around 30 per cent of the congestion in the area.
- Resident and visitor surveys continue to identify roading, parking and traffic as the key issues in Queenstown.
- Commuters are taking much of the available parking in the morning, leaving visitors with a lack of parking options, which contributes to congestion and negatively impacts their experiences.
- There are significant amounts of free and cheap parking in the town centre with limited time restrictions. This does not encourage people to use alternative modes of transport.
- Current infringement charges and parking restrictions do not deter non-compliance.
- Driving into the town centre is seen as more convenient than taking a bus due to the current high-ticket price and lack of service frequency.

4.2 Growth

4.2.1 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, visitors, dwellings and rating units.

The following graph and table 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.

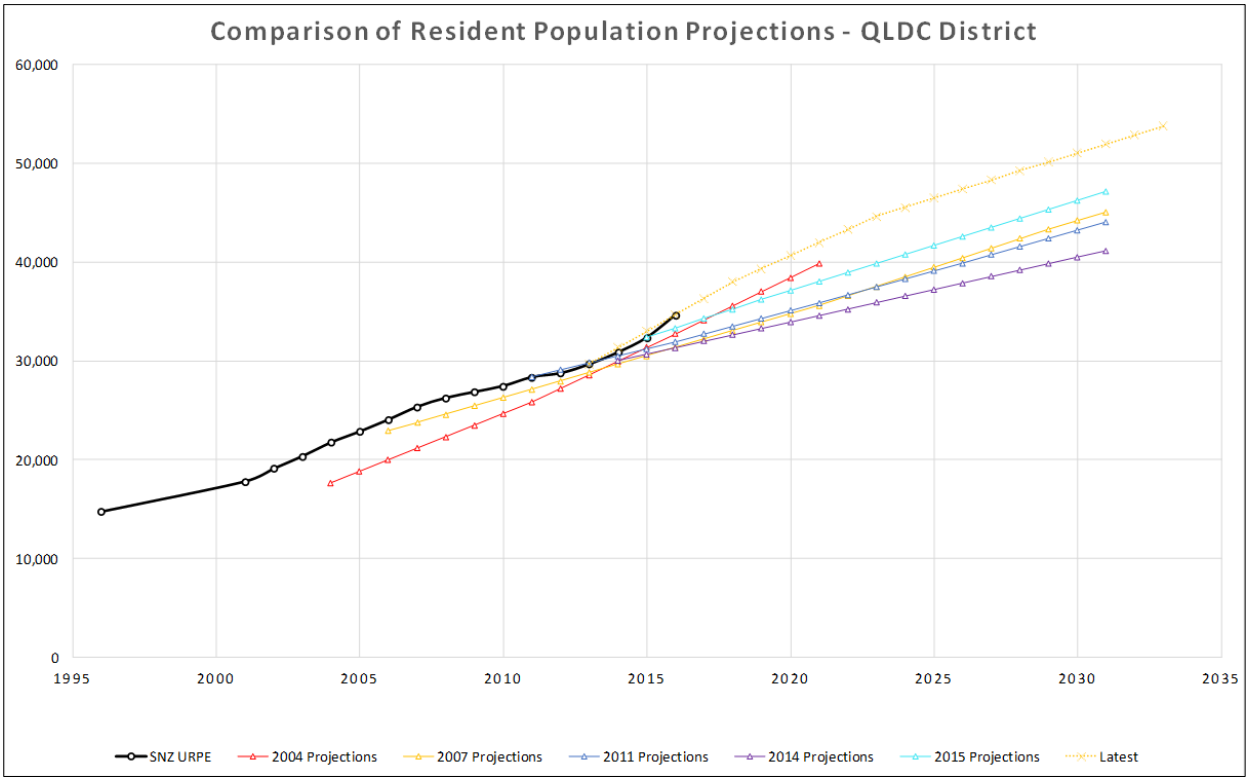


Figure 9: Comparison of Resident Population Projections - QLDC District 2004-2016

Table 6: QLDC Residential and Visitor Growth Predictions 2018-2048

Growth Variable	2018	2028	2048	Average annual growth (10 years)	Average annual growth (30 years)
Usually Resident Population	38,050	49,280	66,350	1,120	945
Residential Dwellings	19,720	24,670	31,600	500	400
Total Visitors (Peak)	79,300	99,750	126,375	2,045	1,570
Total Visitors (Average)	24,860	31,490	39,040	665	475
Total Rating Units	26,025	30,900	38,780	490	425

The table below, from the same report, shows the acute difference between the 2014 and 2015 predictions.

Table 7: Previous projections (2014) versus 2015 projections district-wide.

Output	2015 LTP Projections (Apr 2014)			2015 Projections (Dec 2015)		
	2015	2025	Change (2015-2025)	2015	2025	Change (2015-2025)
Usually Resident Population	30,700	37,300	6,600	32,400	41,700	9,300
Total Visitors (average day)	17,100	19,700	2,600	20,900	26,100	5,200
Total Visitors (peak day)	65,800	78,200	12,400	66,900	83,900	17,000
Total Dwellings	16,300	19,300	3,000	17,000	21,100	4,100
Total Rating Units	22,400	26,500	4,100	22,500	27,800	5,300

Current projections 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.

NB: Population continues to grow (both resident and visitor) at a higher rate than that predicted in 2014 and in earlier years.

Visitors, residents and commuters generally have different parking needs; an issue that will need to be addressed.

Plan Change 50 (PC50), which was made operative in 2016, is already providing for growth in the town centre. Potential projects such as the Gorge Road Special Housing Area, hotel development, Skyline Enterprises expansion, further development of the ski fields and walking tracks, as well as capacity increases at the airport, all need to be considered as growth catalysts.

Where demand for parking spaces exceeds supply, accessibility to the town centre is reduced to people who arrive after the CBD becomes full. This causes spill over carparking and increased parking search by visitors and commuters into residential areas of the town.

4.2.2 Traffic

The Queenstown Lakes District, and the wider South Island, is a desirable place to live and to visit.

Considered to be the 'gateway' to the wider southern region, Queenstown has become New Zealand's second largest vehicle hire port. The continued increase of visitors, their use of rental vehicles, and the growth of Queenstown Airport (including evening flights) is expected to place further strain on the transport system.

The latest modelling results (from Abley Transportation Consultants, October 2017) show continued predicted traffic growth with significant increased traffic volumes over the next 30 years and consequent worsening of levels of service, with increased congestion and delays.

Traffic growth = more demand for parking.

4.2.3 Modelled parking occupancy

Through the Abley Transportation modelling, it was shown that parking occupancies will stay near capacity without intervention. The modelled occupancies in the future remain largely unchanged as the car park facilities are operating near capacity. It is noted that with a component of leased parking included within these

totals it is impractical for the parking to reach 100% occupied as the model assumes that they can't be more than 95% occupied at any one time.

Table 8: Modelled parking occupancy

	Survey	2016 Model	2025 Model	2045 Model
9am (10am survey)	84.6%	76.5%	79.5%	78.1%
1pm	89.8%	91.6%	90.8%	94.5%

4.2.4 Traffic Modelling

Further studies since the 2012 modelling with supporting computer/capacity models have been developed and support the need for intervention in relation to the town centre access.

The latest modelling results (Abley, Oct 2017) show continued predicted traffic growth with significant increased traffic volumes through to 2045. The images below show a predicted increase in traffic volumes and subsequent degradation of service levels under a do-minimum scenario.

Key to Levels of Service:

A
free-flow operations at average travel speeds

B
reasonably unimpeded operations at average travel speeds.

C
stable operations; ability to manoeuvre and change lanes may be more restricted than at LoS B

D
small increases in flow may cause substantial increases in delay and decreases in travel speed.

E
significant delays caused by a combination of adverse progression, high volumes and extensive delays at critical intersections.

F
extremely low flow speeds. Intersection congestion is likely at critical locations, with high delays, high volumes, and extensive queuing.

2016 PM Peak Level of Service Plot

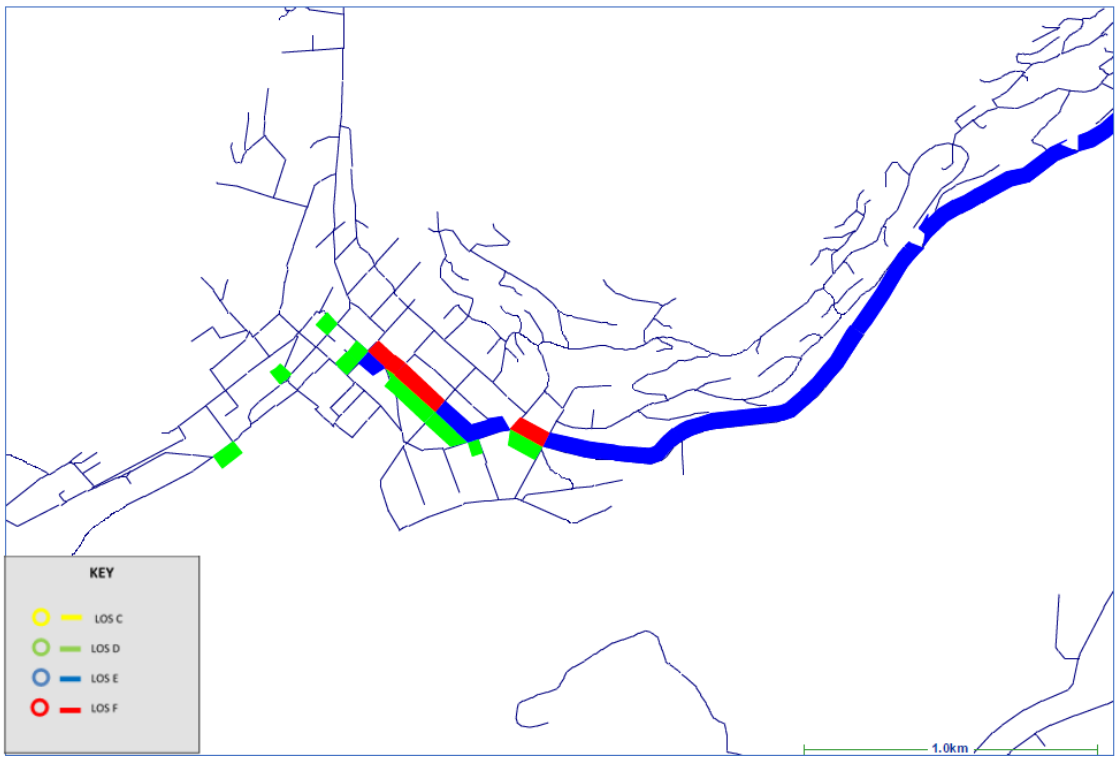


Figure 10: 2016 Level of service PM Peak

The 2017 Abley modelling showed significant degradation of levels of service through modelling a 'do minimum' scenario with no new arterials.

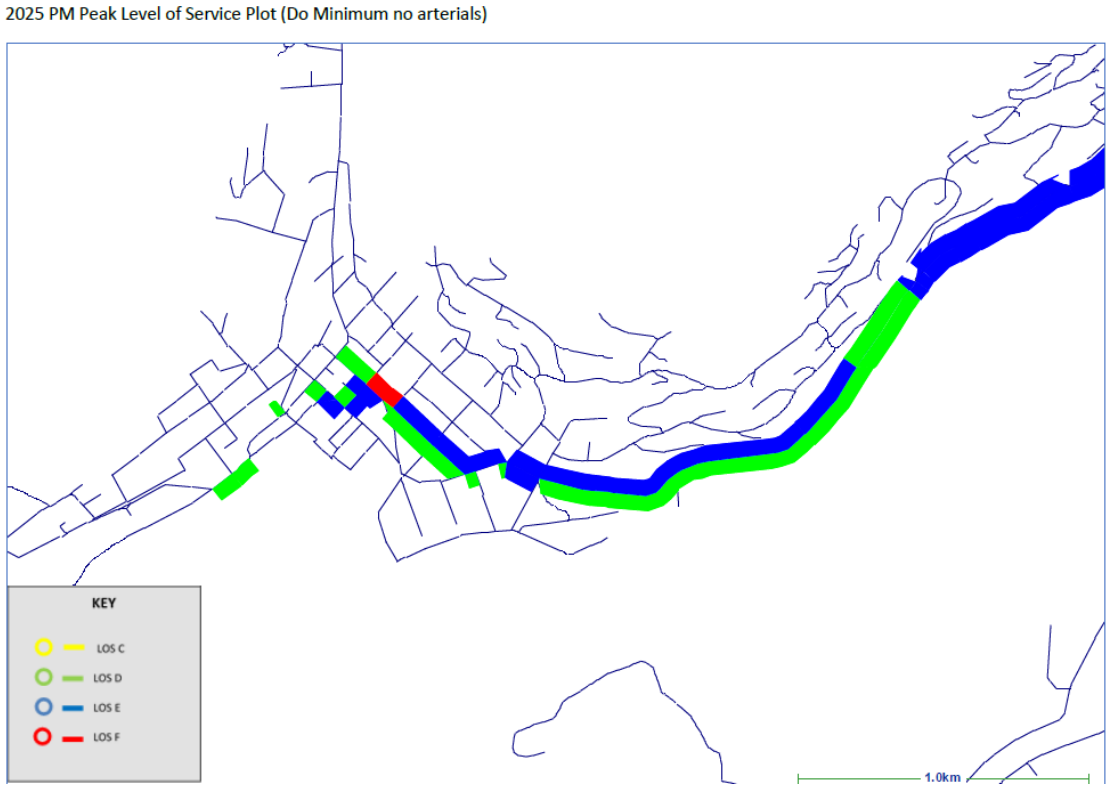


Figure 11: 2025 PM Peak Level of service – do minimum (no arterials)

2045 PM Peak Level of Service Plot (Do Minimum no arterials)

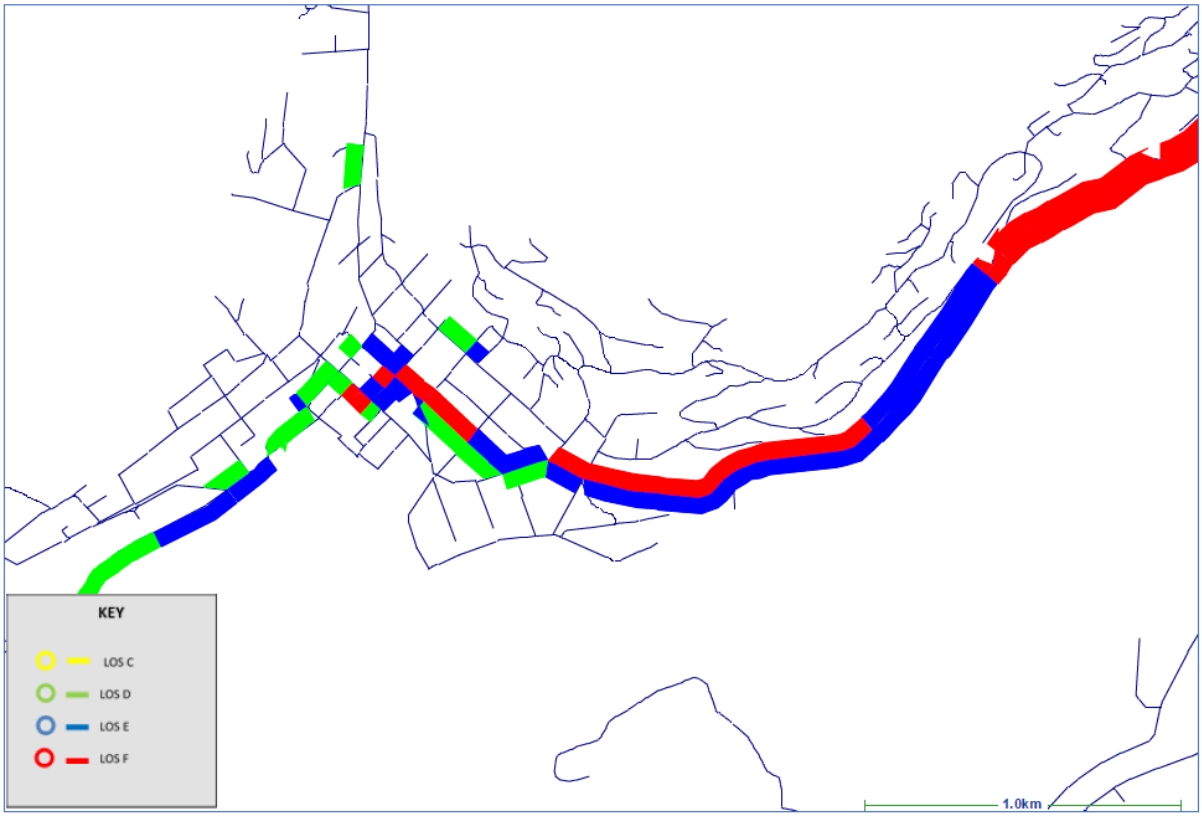


Figure 12: 2045 level of service plots under a do minimum scenario (no new arterials) - PM peak

4.2.5 Trip predictability and variability

Travel time survey data collected between December 2016 and July 2017 by Richard Young from Blip track demonstrates the variability and predictability of Queenstown travel routes by month as shown below. The key routes in the context of the Town Centre Masterplan work are the Stanley Street to Esplanade (orange) and Esplanade to Stanley Street (light blue) corridors.

Findings for Dublin St to Stanley St (the yellow plot):

- Dec/Jan average trips measured across each hour varied in time by up to 6 times slower than free flow (this meant the travel time varied significantly along that route).
- May trips varied in length by up to 2 times (twice as long as free flow).
- February and July trips vary by up to 4 times.
- Across the whole period the Predictability was that 9 out of 10 trips would be completed with a delay above the expected travel time by 65% -85%.

Findings for One Mile Roundabout to Stanley St (the light blue plot)

- Dec/Jan average trips measured across each hour varied in time by up to 3 times slower than free flow.
- February to July trips varied in length by up to 2 times (twice as long as free flow).
- Across the whole period the Predictability was that 9 out of 10 trips would be completed with a delay above the expected travel time of 75% -95%.

Findings summary:

- All routes into and out of Queenstown show low predictability – the travel time journeys at any time compared to what would be expected at that time.
- The Two key routes into Queenstown show high variability as well with travel time variability across the day exceeding 6 times longer than free flow from Dublin Street.

- Within the hour, travel time can vary by up to 90 percent longer than predicted.

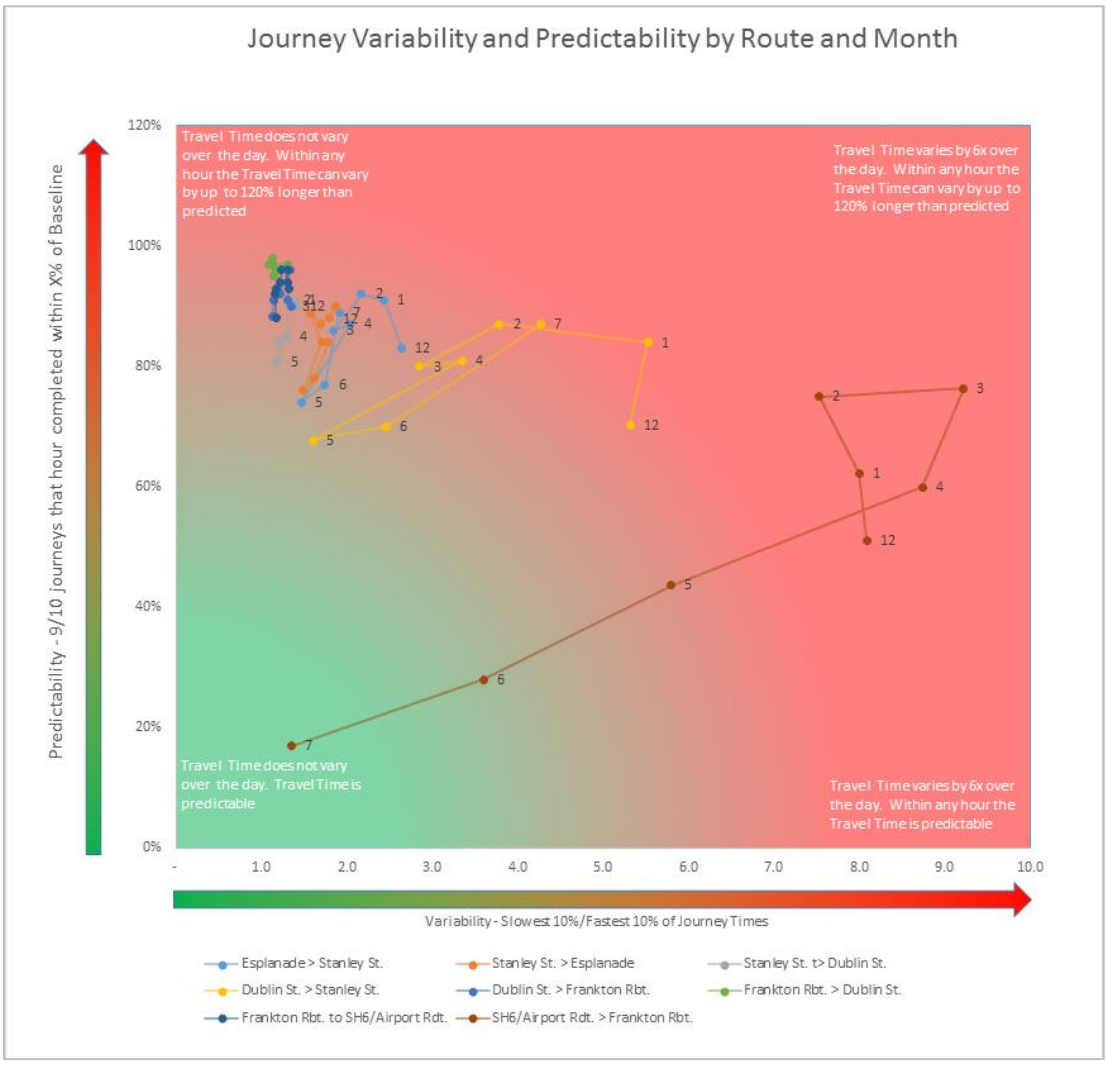


Figure 13: Journey variability and predictability by route and month

4.2.6 Current travel time reliability

Commercial GPS data is a valuable data source to monitor network performance on the Queenstown network. Evidence of travel time reliability was analysed using TomTom data sourced from the NZ Transport Agency historical data portal in the development of the Queenstown Integrated Transport Programme Business Case (QITPBC).

The 15th, 50th and 85th percentile travel times for evening peak week day trips between Lake Esplanade and State Highway 6/6A in March and December 2016 are presented below for each direction. These figures demonstrate the range of travel times during the 4pm - 6pm evening peak which is extensive (5-7-minute range) in both directions and worsens between the March 2016 and December 2016 surveys.

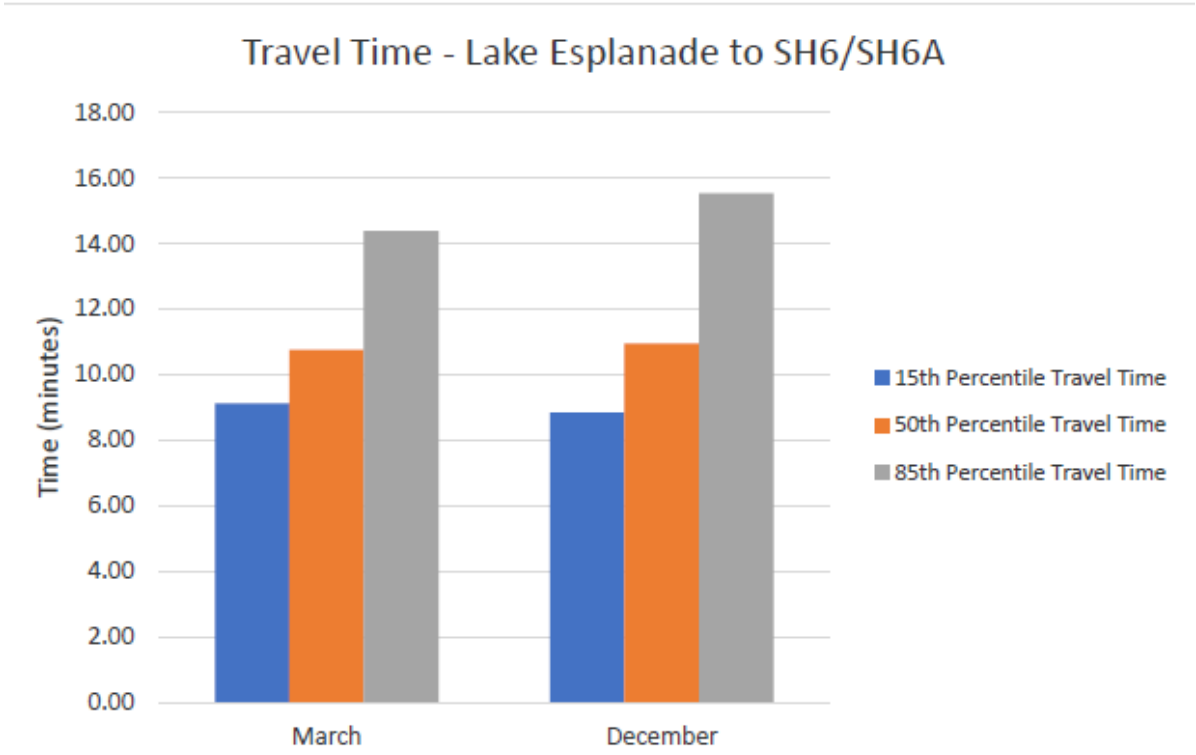


Figure 14: 2016 observed travel times from Lake Esplanade to SH6/SH6A

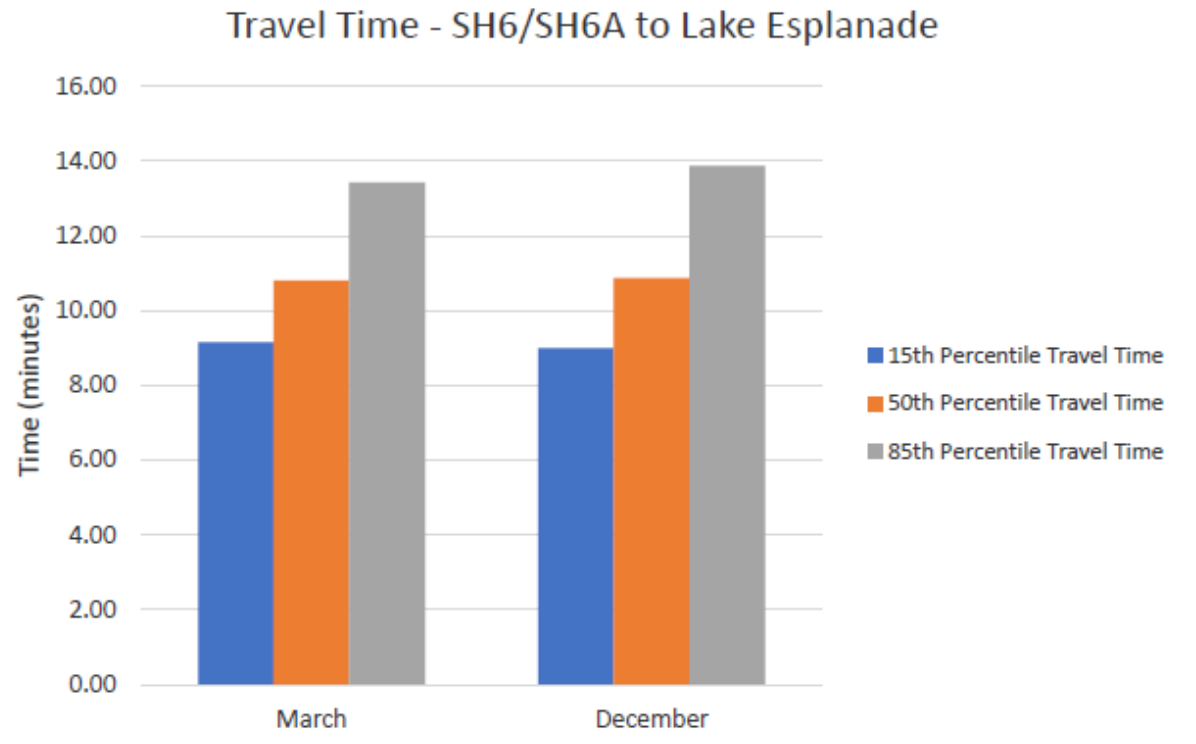


Figure 15: 2016 observed travel times from SH6/SH6A to Lake Esplanade

4.2.7 General

There is minimal evidence to show that initiatives to encourage the use of alternative modes of transport to the car have been successful. The goal of 20% diversion from private vehicle to alternative modes (public transport, walking, cycling) has not been achieved to date.

The chart below shows the current modal split for travel to work in Queenstown.

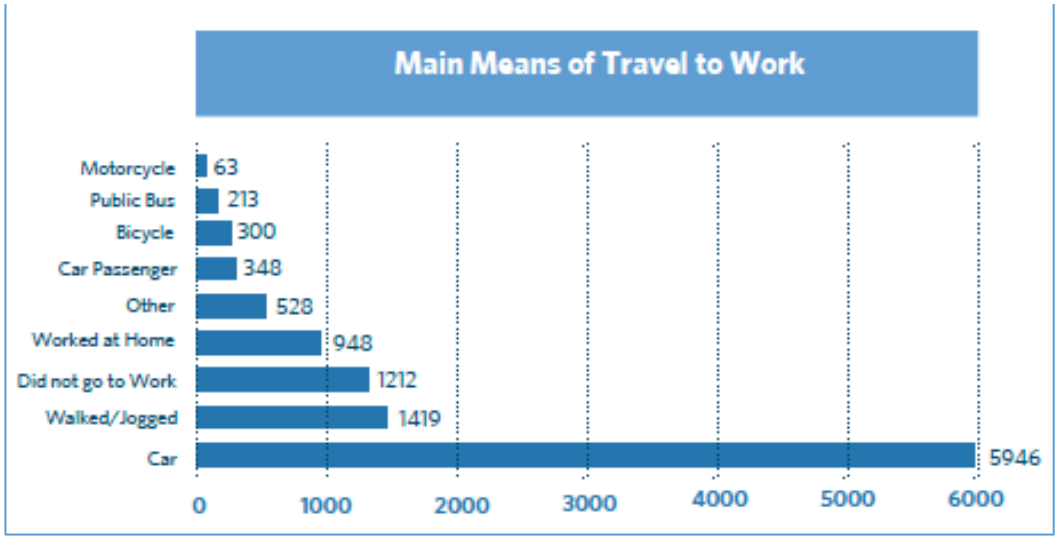


Figure 16: Current modal split for travel to work in Queenstown
(Source: QITPBC Summary Document, May 2017)

4.2.8 Annual Modal Split Survey

MWH undertakes an annual survey on modal split. The 2017 report concluded that "…*the overall proportions of the differing modes of travel remains consistent, with only minor variations from previous years*".[1]

Key findings from the report:

- There is a 12% increase in inbound traffic across all modes when compared with the previous three years, which is in line with the traffic data trend since the survey began in 2009.
- Cyclist volume dropped by 30% when compared with the previous three years, with a proportional modal decrease of 7%.
- Pedestrian traffic dropped by 4% when compared with the previous 3 years.
- The report is evidence that travel demand management initiatives have not delivered the desired results.

The information in the table below is taken from the MWH report and shows the variation in mode for each year (over the same four-hour period). It includes all inbound survey locations (Gorge Road, Frankton Road and Lake Esplanade).

[1] Section 2.1.1 Summary of Results - 'Queenstown Modal Split Traffic Surveys 2017, MWH Stantec April 2017

Table 9: Queenstown Traffic Survey – Modal Split, Overall Proportion of Vehicles by Year

Location	Time Period	Car	Heavy Vehicle	Taxi	Coach	Bus	Pedestrian	Cyclist
All in-bound	**2017**	**80%**	**3%**	**2%**	**3%**	**0.6%**	**11%**	**0.6%**
	Time Period	Car			Bus		Pedestrian	Cyclist
	2016	83%			2%		14%	1%
	2015	84%			2%		13%	1%
	2014	86%			2%		11%	1%
	2013	84%			2%		13%	1%
	2012	86%			2%		11%	1%
	2011	90%			2%		8%	1%
	2010	84%			2%		13%	1%
	2009	84%			3%		12%	2%

4.3 Projected future demand by mode

A number of short-term, intermediate and long-term proposals to improve regional public transport in the SH6A corridor have been developed. These are shown in Appendix A and cover, in stages, the period to and beyond 2035. The main proposals are summarized in this chapter.

Forecasts of future demand by mode has been undertaken for the SH6A corridor to inform the proposals for regional transport. The forecasts have been prepared using a transportation model which includes land use growth forecasts for the two modelled years of 2025 and 2045 developed by Rationale consultants and approved by QLDC for planning purposes. The future road network for these future years includes current infrastructure which is under construction within the District such as the Kawarau Falls Bridge replacement but includes no improvements within the town centre other than local roading connections to provide access to the Lakeview site.

Public transport provision includes the changes recently proposed as part of the Wakatipu Basin Public Transport Detailed Business Case (DBC), and includes changes in routes, service frequency and the introduction of a $2 (or $5 for cash) flat fare.

The projected trend in demand shown below has informed the timescales suggested for the proposed improvements. The graphic below demonstrates this demand and highlights that a mass rapid transit solution may be required from 2037 onwards.

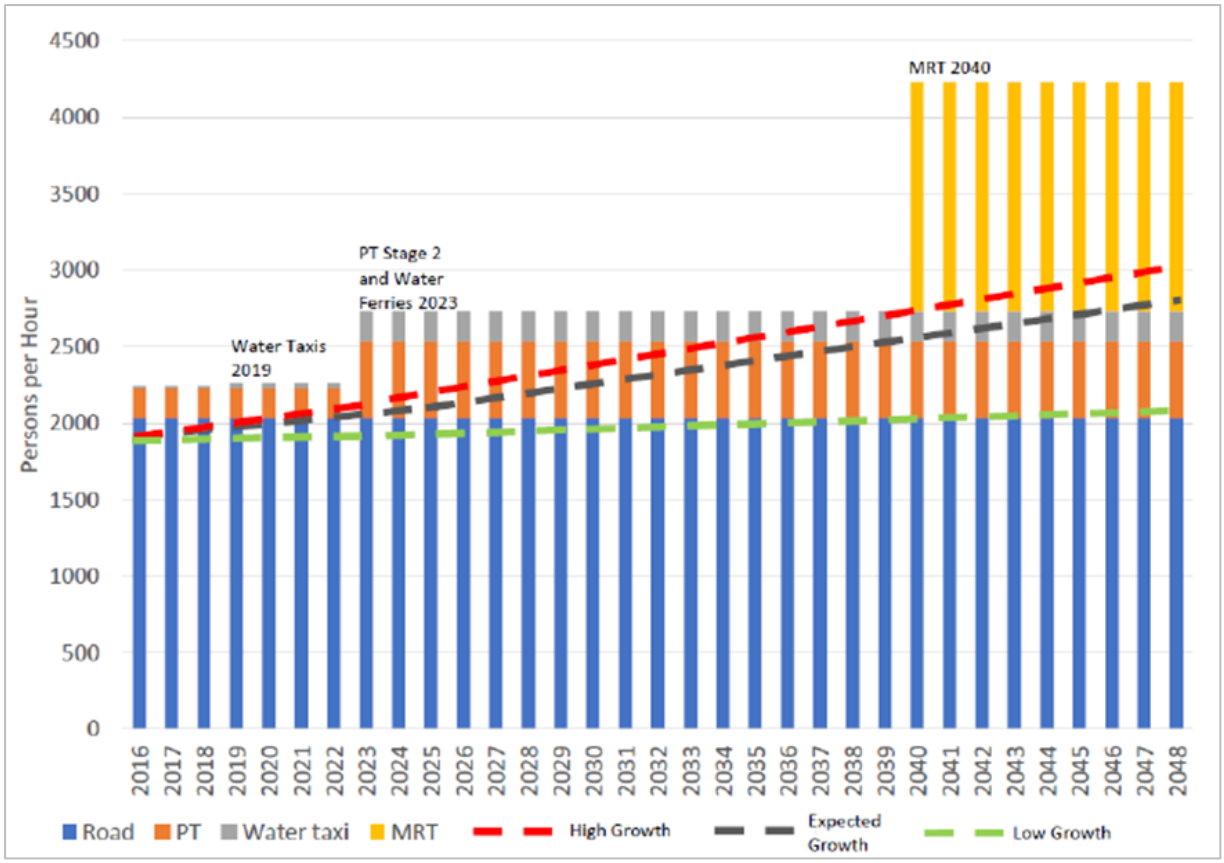


Figure 17: Projected Future Demand by Mode (Sourced from the Queenstown Masterplan Public and Passenger Transport Requirements report produced by Beca)

4.3.1 People movements by corridor

The delivery of the QITPBC recommended programme focuses on increasing the throughput of people on key corridors into and out of Queenstown town centre. The impact of programme implementation on mode share over future years and is shown graphically below. This demonstrates the total car occupants are held relatively constant while growth in person movement demand is expected to be met by increased uptake of alternative modes.

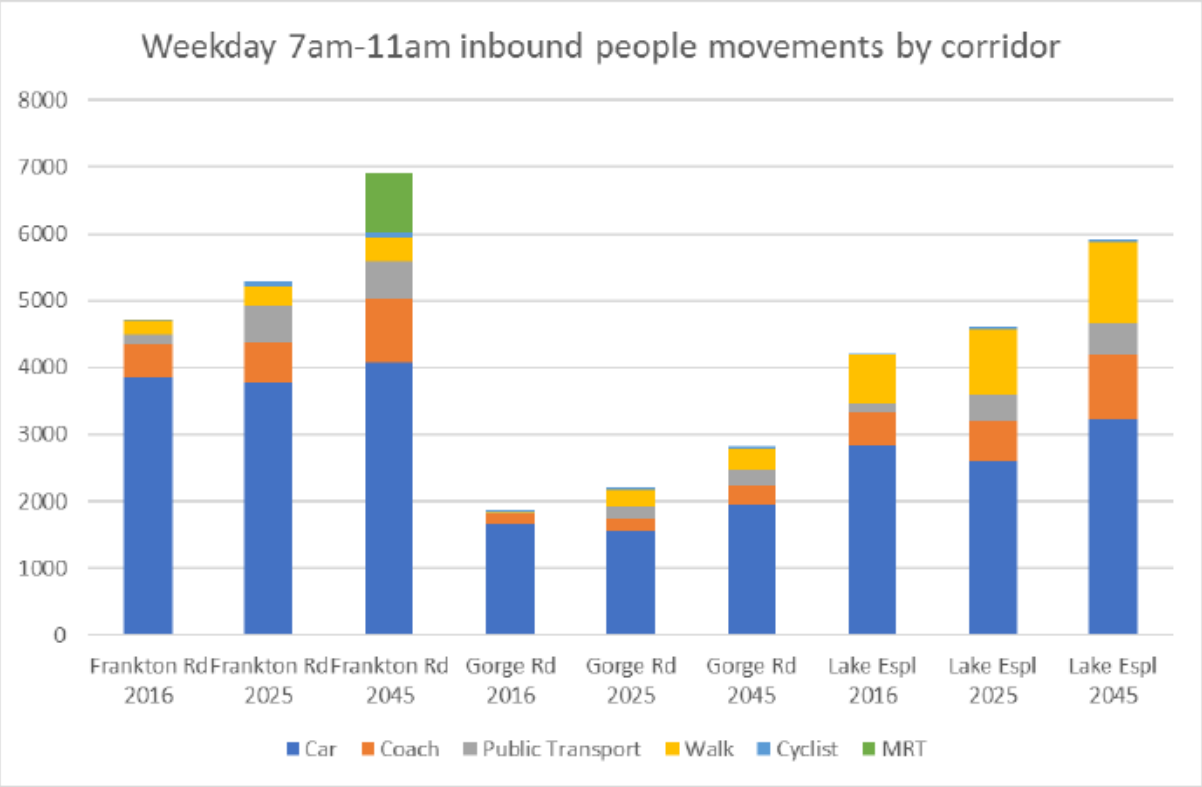


Figure 18: Morning peak people movements by corridor and mode in 2016, 2025 and 2045

4.4 Queenstown Airport growth forecasts

Queenstown Airport Corporation has recently released a Masterplan options document outlining plans for the future and expected growth levels. As the major gateway to the lower South Island and the key access to one New Zealand's most marketed regions, the airport plays a very significant role. In line with the ongoing visitor growth expected for the district, QAC is expecting consistent growth in passenger movements, as shown below.

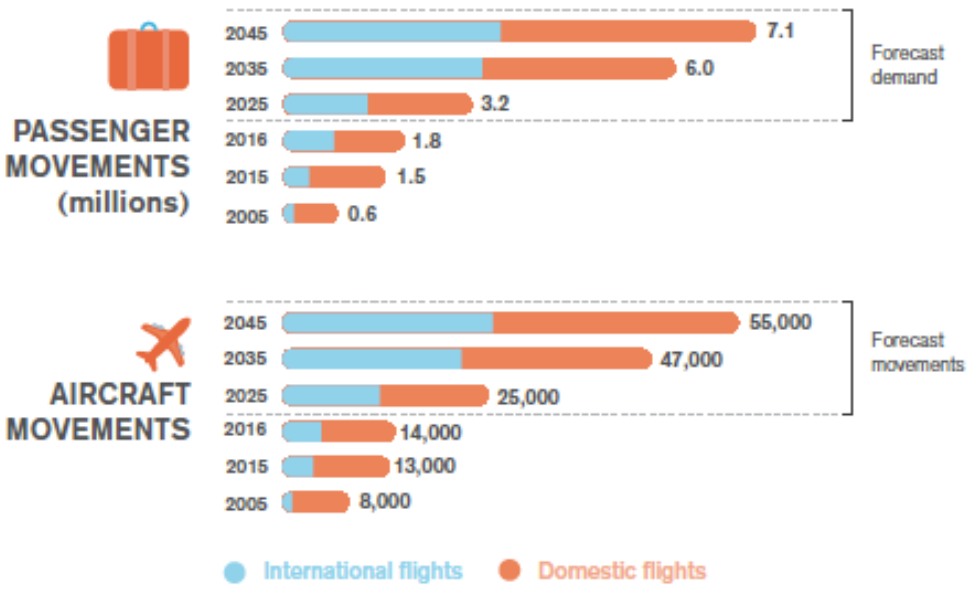


Figure 19: Passenger and aircraft movement forecasts for Queenstown Airport (Source – Queenstown Airport Masterplan Options, August 2017)

The Masterplan options document also recognises the need for infrastructure growth in the district to help accommodate the level of growth expected, as shown below. The need for a regional Masterplan has been discussed in a briefing with QAC staff and should be investigated further in the Detailed Business Case.

Figure 20: A snapshot of the regional infrastructure requirements as noted by QAC in the Masterplan Options document (Source – Queenstown Airport Masterplan Options, August 2017)

4.4.1 What this means for parking in Queenstown Town Centre

Queenstown Airport is home to a large and dynamic rental car operation that is responding to growing demand form visitors. Whereas many international groups used to have a preference for coach travel around New Zealand, there has been a recent trend towards fly and drive holidays.

This has resulted in ***one third of arriving passengers using rental cars to explore the region***. Many of these visitors want to visit Queenstown town centre and that means they need parking. Today many visitors cannot find a park when they go to the town centre as they have been filled by commuters earlier in the day (see the evidence and modelling sections). This has a negative effect on their experience and impression of the town centre and this may impact their flow on tourism activities across the region. While it is encouraging to see a park and ride service introduced recently near the airport, changes need to be made to provide available parking for visitors and to encourage use of public or passenger services to access the town centre.

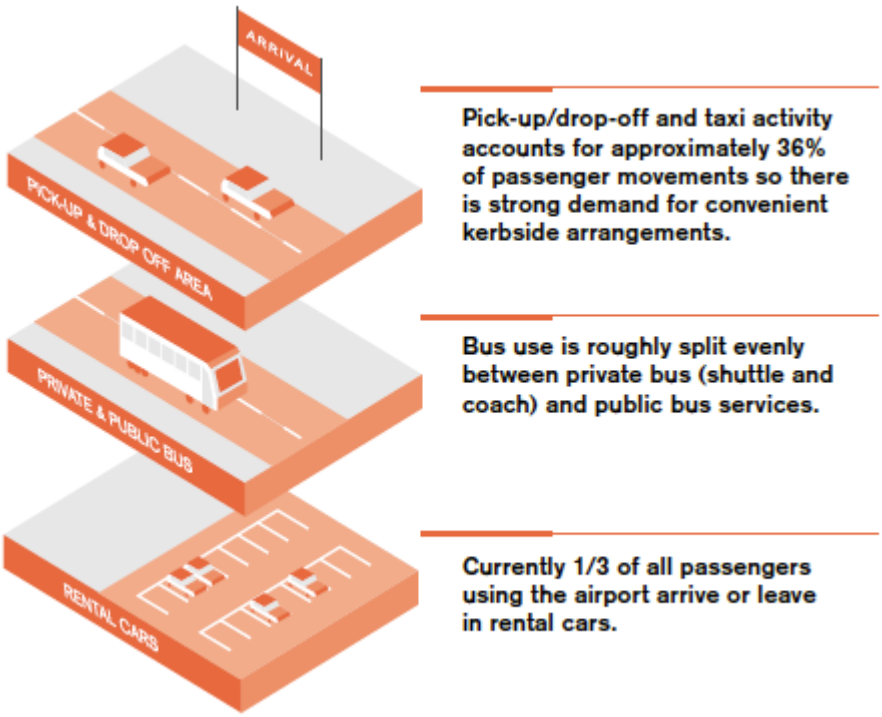


Figure 21: A snapshot of ground transport use for visitors at Queenstown Airport

4.5 Queenstown Parking Survey 2017

The objective of the annual parking survey is to allow QLDC to report on the availability of short-stay parking in the town centre.

This annual survey has been expanded in 2017 to allow for free on-street and off-street parking as part of the integrated business cases development. No private parking facilities are captured in the survey. The area covered in the 2017 parking survey is shown below. This snapshot has been used as the foundation for the parking aspect of the transport modelling used to test and inform the preferred programme.

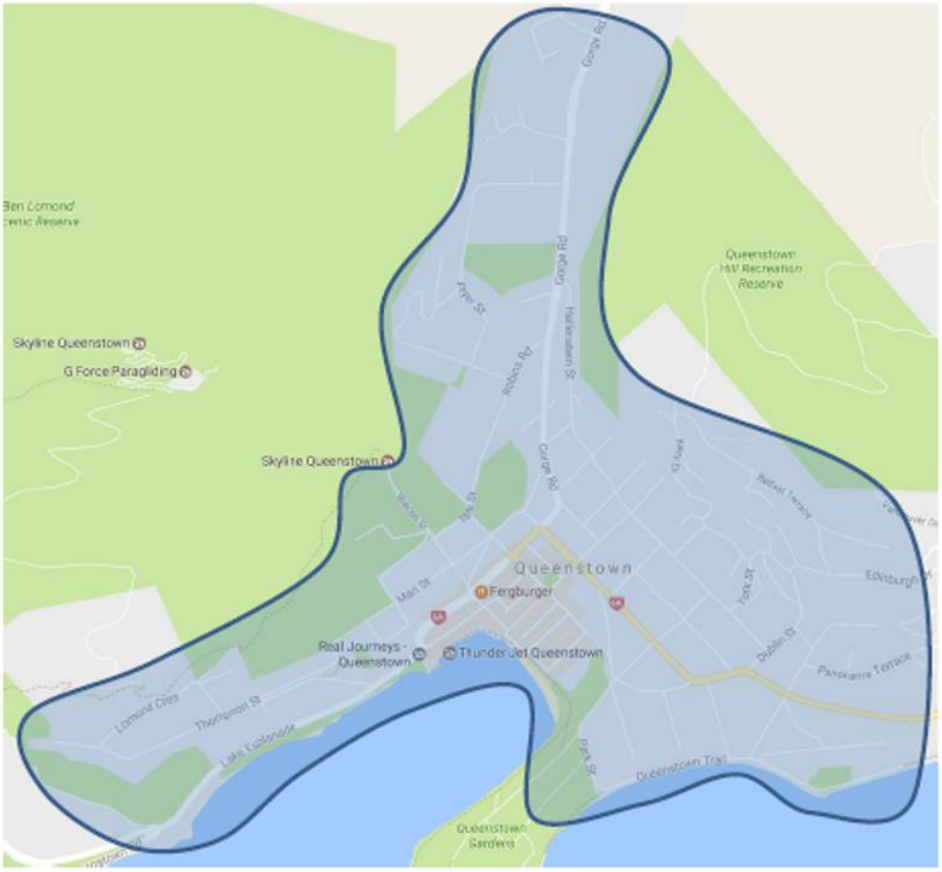


Figure 22: Map of Parking Survey Extents
(Source – 'Queenstown Parking Surveys 2017' MWH Stantec 2017)

Key findings from the survey included:

- Higher availability of spaces in dedicated parking facilities such as the Man Street, Church Road and Boundary Street carparks shows the preference for cheaper / on-street parking, consistent with the 2016 survey.
- Parking spaces are generally full or nearly full between 10 am and 4 pm (80% to 90% occupied).
- The results generally consistent with previous years (NB: 7 am time period not included in previous studies), although the number of available parks for all the surveyed time slots is lower than 2016.
- Few sections of on-street parking have availability.
- Parking on grass verges is not captured but it is significant in some areas, such as adjacent to the airport (which has since been changed).
- Availability in suburban areas is estimated to reduce by 30% during the day, which is likely to be commuters seeking free all-day parking.
- Parking availability is still higher in the surrounding suburbs than in the town centre.

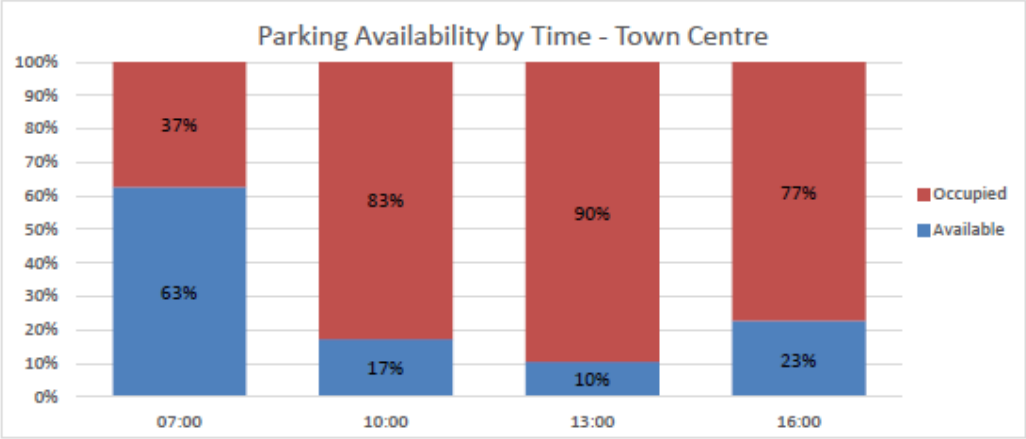


Figure 23: Parking Availability by Time – Queenstown Town Centre
(Source – 'Queenstown Parking Surveys 2017' MWH Stantec May 2017)

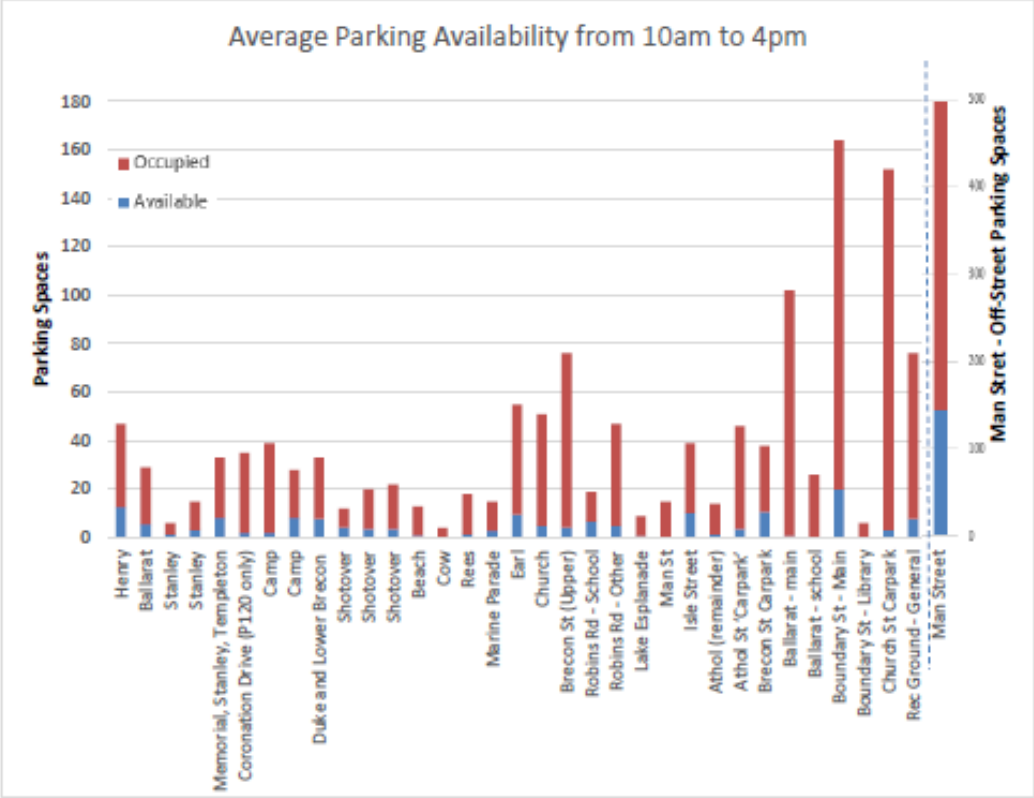


Figure 24: Average Parking Availability 10 am to 4 pm – Queenstown Town Centre
(Source – 'Queenstown Parking Surveys 2017' MWH Stantec May 2017)

An optimal 'peak' parking occupancy is 85%[2]. When parking occupancy exceeds this level, traffic congestion increases because drivers circulate 'hunting' for a parking space. Other consequences include drivers parking illegally, or not completing trips as no parking spaces are available. Queenstown town centre consistently shows this behaviour.

[2] Parking Management Strategies, Evaluation and Planning" T. Litman, Victoria Transport Policy Institute, (2012)

4.6 QLDC Transport Chapter Advice (MR Cagney)

An abundant supply of low-cost or "free" parking, both residential and commercial, has stimulated excessive demand for vehicle based travel and lifestyle patterns, which will in turn create an incentive to drive more. This has three effects. First, it discourages people from using cars more efficiently, such as through car-pooling and trip-linking. Second, it artificially reduces the attractiveness of alternative transport modes, such as walking, cycling, and public transport. Finally, it competes with and to an extent undermines the viability of transport services that reduce the need to travel altogether, such as potential car-share schemes, home delivery services, and telecommuting.

4.7 Land Use Change

4.7.1 General

Any growth and consequent change in land use will have an impact on the transport network and the need to provide for parking, as well as consideration for alternative travel modes.

The District Plan Review has proposed up zoning much of the existing town centre residential zones to high density residential. More significant changes have been proposed for the Gorge Road corridor with new mixed-use zoning (up to six floors in most areas) covering this large area.

There are several private developments planned for the town centre, which, if they occur, will have a significant impact on the transport network and on the town centre in terms of attractions and accommodation.

These include but are not limited to the following:

- Hotel developments, several of which are at different stages of planning and construction.
- Skyline Gondola development.
- Lakeview development.

The provision of parking facilities is a consideration of all development approval / consent processes.

4.7.2 Proposed District Plan – Future Transport Chapter Review

The QLDC Planning and Development Department are currently drafting up changes to the existing transport chapter of the Operative District Plan. The use of maximum/minimum parking requirements is being considered to promote alternative transport modes and begin to shift the reliance of the private car as the main form of transport choice. Once this update is completed, it should be considered as part of the detailed business case development.

4.7.3 Plan Change 50

PC50 provides for the expansion of the existing Queenstown Town Centre Zone (QTCZ) through the rezoning of approximately 14.5 hectares of land from High Density Residential Zone (HDRZ) to QTCZ or subzones of the same. This will impact on transportation networks. The plan below shows the area to be rezoned[3].

[3] Taken from Paul Speedy (Manager Strategic Projects & Support) Evidence for PC50 5/2/16.

QLDC initiated PC50 to address the following:

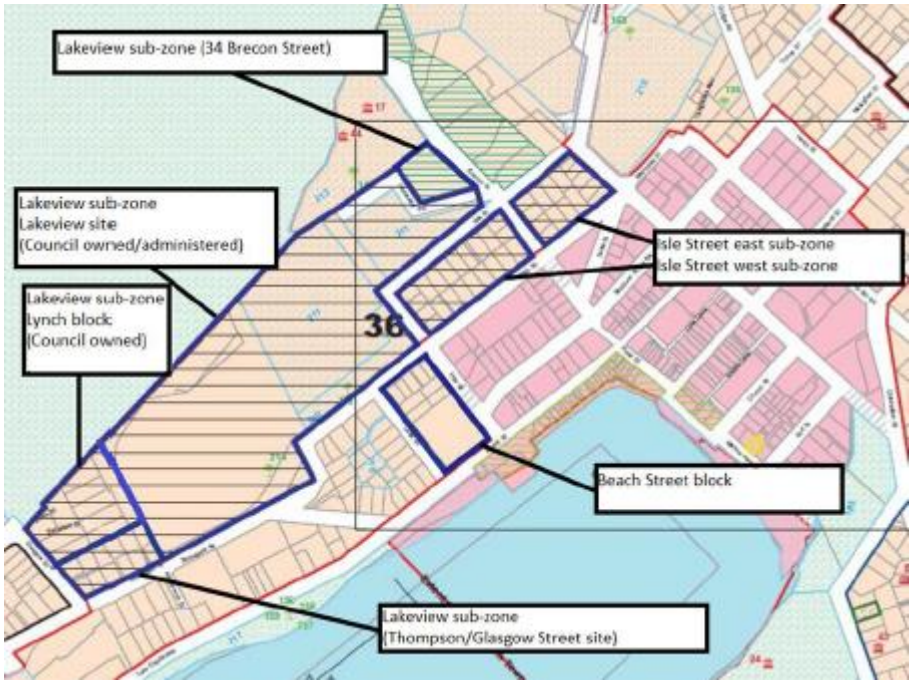


Figure 25: Location of Plan Change 50 areas and sub-zones

- The long-term future of the Lakeview site. This provides for an integrated commercial/mixed-use development, which could include visitor accommodation, high density residential accommodation, commercial activities (including retail and hospitality) public recreation space, and the option of a convention centre.
- An identified need to expand the Queenstown Town Centre Zone to provide for and facilitate economic growth.

Regarding town centre parking and supply, PC50 evidence[4] states the following:

- *The provision of parking within the PC50 land and its future development planning and delivery is a matter that will be carefully managed as development takes place. This will be delivered by both QLDC in its management of the PC50 zone and its rule requirements, as well as the future developers of PC50 who will be required to assess parking demand and supply matters by way of the required resource consent applications and preparation of transportation assessments in support of those applications.*
- *The provision of excessive amounts of parking within PC50 land could potentially lead to unnecessarily high levels of traffic movement. In this regard, PC50 proposes careful management of car parking requirements in terms of the allocation of both the restricted discretionary status (and associated matters for assessment), as well as the parking regime in PC50. This sets in place a minimum ratio of on-site parking for residential activities, a maximum parking ratio for visitor accommodation (separated into different unit and room types) plus a minimum on-site coach parking requirement, and a minimum ratio for convention centres. The proximity of the PC50 land to the existing town centre zone and activities is a key determinant in encouraging non-car travel modes for people wishing to visit both the PC50 area and the town centre.*

This wide range of activities demonstrates the need to provide for varied parking options.

[4] Taken from Donald John McKenzie Evidence for PC50 5/2/16.

4.7.4 Gorge Road Special Housing Area (SHA)

MWH undertook a carpark assessment for the proposed Gorge Road SHA '*Gorge Road Special Housing Area – Car Park Assessment*' dated 4 July 2016.

This area has been earmarked for future growth and is anticipated to be developed predominantly as accommodation units for seasonal workers. The SHA is in response to existing housing shortages and affordability.

The proposed site will require the redevelopment of some residential, commercial, and industrial buildings. The available area for special housing is approximately 9.27 Ha (92,700 m^2) and it is anticipated that approximately 2,000 units will be built comprising one to three-bedroom units.

It is anticipated that the QLDC current requirement for two parking spaces per residential unit could be reduced considering other district plans across NZ as well as related guidelines and studies. However, it is likely that more than 2,000 parking spaces will still be required once it is fully built.

4.8 Resident and Visitor Surveys

Surveys generally show that residents and visitors identify parking as a significant issue in the town centre in terms of the quantity of parking, as well as the associated congestion due to searching for parking spaces, poor aesthetics of the associated infrastructure and campervan parking.

4.8.1 Annual Ratepayers and Residents Survey

The July 2016 *Queenstown Lakes District Ratepayers and Residents Survey* provides an analysis of activities undertaken by QLDC, identifying those areas seen to be requiring improvement across the district. The graph below: 'The Big Picture – Improvement Opportunities' identifies roading, parking and transport as being the top priority in terms of areas requiring improvement.

NB: the current survey covers the Queenstown Lakes district and is not sufficiently detailed to specifically assess satisfaction within the town centre.

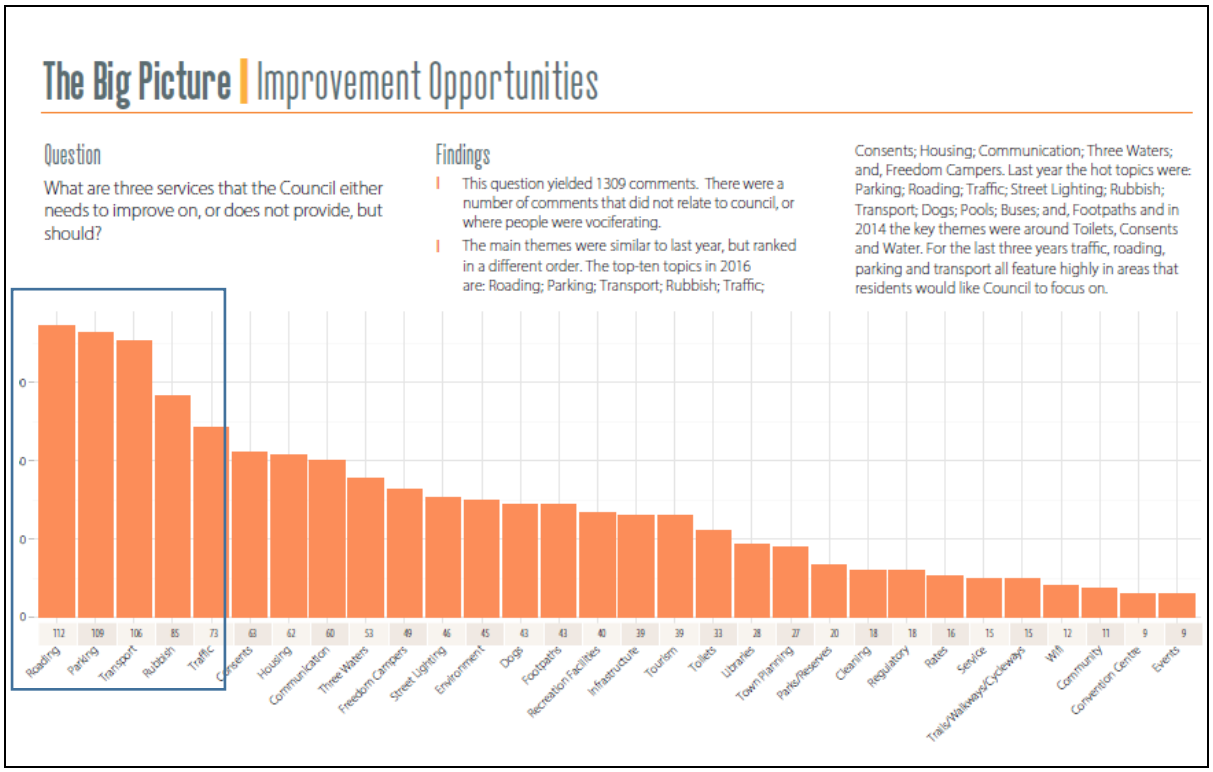


Figure 26: The Big Picture – Improvement Opportunities – 'Queenstown Lakes District Ratepayers and Residents Survey 2016'

The report stated:

"Transport, roading and parking comments featured strongly. These three categories seemed to link to a high-level concern about the region's ability to cope with the high volume of visitors, short-term workers and residents who all need to move about in vehicles and park somewhere. Transport comments were largely focused on public transport (e.g. buses/shuttles) and park 'n' ride options given limited parking space for private residents' in Queenstown and Wanaka."

Specific to parking in Queenstown, issues raised can be grouped as:

General issues	• Insufficient parking facilities • Parking hub(s) • Parking in residential areas • Parking for sports/recreation facilities • Parking for commuters • Parking for businesses
Enforcement	• Better road markings as well as issuing tickets/fines
Off-street parking	• Increase provision
Time restrictions	• Inconsistent time zones around the town centre
Airport parking	• Increase parking facilities to reduce on-street parking in the vicinity
Campervans	• Provide specific parking facilities • Restrict inner street parking for campervans
Development	• To provide for extra parking/roading

In summary, the annual residents and ratepayers survey shows that the community is generally not satisfied with the quantity and quality of parking facilities.

4.8.2 Visitor Insights Programme, Visitor Experience, Queenstown Q3 2016

A recent report, '*Visitor Insights Programme, Visitor Experience, Queenstown Q3 2016',* produced by Angus and Associates for Destination Queenstown includes information on criteria such as reasons for travel, destinations, and activities undertaken in the Queenstown region as well as visitor ratings/feedback.

The survey shows that, based on feedback on a variety of factors in terms of 'experience' satisfaction, traffic and parking has the lowest satisfaction rating.

SATISFACTION

On a scale of 1 (not at all satisfied) to 10 (extremely satisfied), how satisfied are you with these aspects of your current experience in the Queenstown region?

New Zealand	Q3 2014	Q3 2015	Q3 2016
Accommodation	8.5	8.7	8.5
Transport to Queenstown	8.3	8.8	8.5
Local transport options and services	7.4	7.8	7.9
Traffic and car parking	5.9*	6.6*	6.6
Public facilities (parks, toilets)			8.5
Natural environment	-	-	9.3
Cleanliness/presentation of town/region	8.7	8.8	8.9
Activities and attractions	9.0	8.9	9.1
Restaurants, cafes and bars in Queenstown	8.5	8.5	8.6
Overall experience in the Queenstown region	9.0	9.1	9.1

Australia	Q3 2014	Q3 2015	Q3 2016
Accommodation	8.1	8.3	8.8
Transport to Queenstown	8.3	8.1	8.6
Local transport options and services	7.7	7.6	8.1
Traffic and car parking	6.2*	6*	6.2
Public facilities (parks, toilets)			8.8
Natural environment	-	-	9.7
Cleanliness/presentation of town/region	8.8	8.9	9.4
Activities and attractions	8.9	8.9	9.4
Restaurants, cafes and bars in Queenstown	8.5	8.6	9.0
Overall experience in the Queenstown region	9.0	8.9	9.4

Other International	Q3 2014	Q3 2015	Q3 2016
Accommodation	7.9	7.4	8.0
Transport to Queenstown	8.2	7.7	8.3
Local transport options and services	7.4	6.8	7.4
Traffic and car parking	6.8*	6.6*	7.3
Public facilities (parks, toilets)			8.7
Natural environment	-	-	9.6
Cleanliness/presentation of town/region	9.1	8.4	9.1
Activities and attractions	9.1	8	9.0
Restaurants, cafes and bars in Queenstown	8.5	8	8.5
Overall experience in the Queenstown region	9.0	8.7	9.0

*Previously 'Parking and other public facilities'

Visitor Experience | Queenstown | Q3 2016 angus

Figure 27: Visitor Insights Programme, Visitor Experience, Queenstown Q3 2016

4.8.3 Qrious people movement data

Using cell phone information, Qrious tracks the movement of people to provide an insight into the behaviour of visitors and locals visiting Queenstown and to profile those visitors. They were commissioned to analyse numbers in the Queenstown CBD for two years from March 2015.

Some of the key findings are shown below:

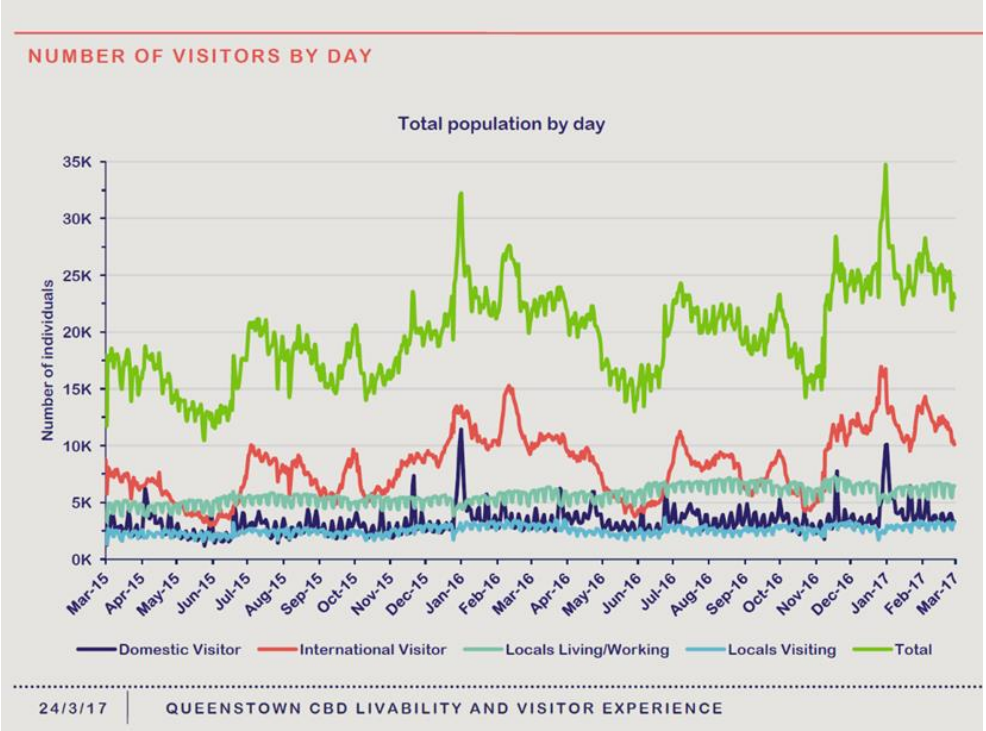


Figure 28: Qrious people movement data

- Total visitor numbers are increasing for regional and international visitors, but are remaining static for locals visiting. With an increasing population, this means that, as a proportion, less locals are visiting the town centre. This trend was identified within the Town Centre Masterplan ILM especially around the locals' sense of belonging and ensuring the town centre remains authentic where visitors and locals mix. Additional cultural activities and facilities, and improved accessibility could attract local visitors back into the town centre, which makes it a more authentic experience for everyone. Through analysing the feedback gathered in the surveys in this section (particularly the ThinkPlace study), it can be assumed that one of the primary reasons for locals not visiting the town centre is the level of congestion and how hard it is to find a parking space.
- More international visitors travelled to Queenstown than domestic.
- International visitors are more seasonal than domestic visitors.
- The number of people living and working in the CBD has increased since June 2016.
- Locals that don't work or live in the area visit it more in summer compared to winter.
- International visitors spend more time in the CBD than domestic visitors.
- More than 60% of locals visit the CBD more than three times per month with approximately 10% visiting less than twice per month.
- Around 60% of locals living or working in the CBD spend at least six hours in the CBD per stay with approximately 20% spending less than two hours.

What does this mean for parking?

- More visitors mean more demand for parking if the general reliance on private vehicles does not change.
- Locals and visitors may spend less time in the town centre if their experience continues to be impacted by transport challenges, such as lack of available or accessible parking.

4.8.4 ThinkPlace

ThinkPlace has completed a customer insight study (initially for the QITPBC but then reassessed specific to the town centre) through in-depth conversations with residents and businesses. Quotes from the conversations were broken into broad topic areas such as parking, traffic flow, pedestrians, precincts, multi-modal options, cultural and Community facilities, activation of spaces, and futuristic innovations.

Some of the key issues identified that relate to or impact on parking can be summarised as:

- **Growth:** Some locals feel that visitor growth may '*eventually make the town a victim of its own success*' due to congestion and overcrowding.
- **Congestion: T**here is a general resignation and frustration that the Council has spent many years talking about innovative solutions to transport and congestion problems but has not implemented them; meanwhile, traffic conditions are worsening.
- **Parking:** Insufficient parking, parking costs, time-restrictive parking options, and campervan parking were all listed as frustrations with residential areas becoming increasingly '*clogged up*' and parking buildings at full capacity for large parts of the peak tourist seasons.
- **Facilities:** Locals do not want to deal with congestion and perceived parking problems, preferring to use facilities located in out-of-town hubs and not to visit the town centre.
- **Public Transport:** Many commuters find that using their cars to travel into the town centre is cheaper and more convenient; they rarely use public or passenger transport. There is no incentive to use public transport, which is considered expensive, unreliable and not convenient.

4.9 Park and Ride Survey 2016

QLDC undertook a park and ride survey in 2016, to which there were 428 respondents from across the district. The aim of the survey was primarily to determine the need for a park and ride facility servicing the town centre.

Key points taken from the feedback are as follows:

1. Appropriate locations for facilities need to be analysed to best address potential demand and to service access to other transport links (such as passenger and public transport, cycle/walking trails).
2. A wide range of operating hours and a high frequency of shuttles would be needed to accommodate the mix of employment/enjoyment hours.
3. Price range needs to be lower. Public transport is seen as expensive, and parking (although limited in Queenstown), is still cheap or free.

Park and ride will not suit everyone. However, a well-managed and utilised park and ride scheme will reduce the volume of traffic entering the town centre and consequently relieve pressure on parking facilities.

4.10 Initial Masterplan Engagement Results

In March 2017, QLDC conducted several community engagement events and encouraged feedback across a wide variety of mediums including an online survey.

136 people responded to the survey, detailing what they liked about the town centre and what they think could be better.

The most common theme for what could be better was **more parking options for long-term and short-term stays**. 65% of respondents said their main problem with the town centre is lack of parking options.

Below is a graphic of the other improvements suggested in the online survey feedback:

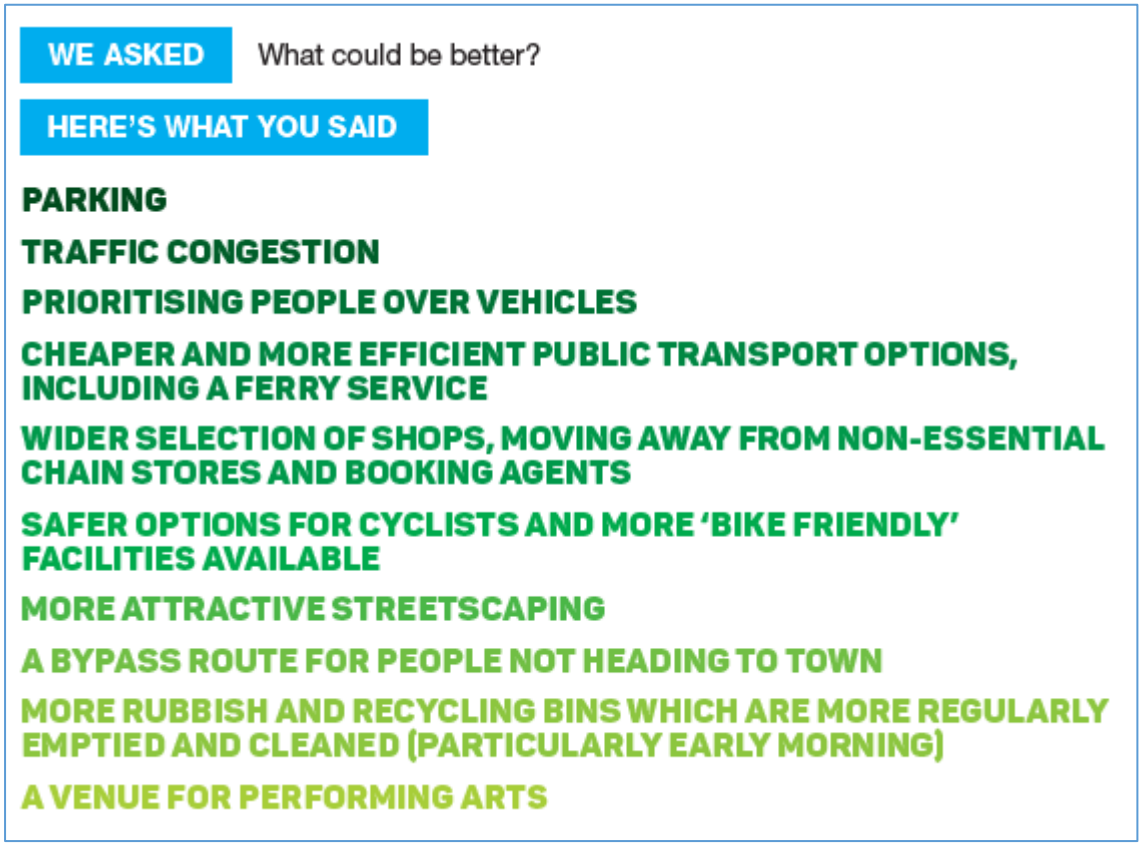


Figure 29: Masterplan Initial Engagement Online Survey - What could be better?

4.11 Updated community feedback

The ongoing public engagement for this project will provide a real-time sense of whether the evidence is changing. As shown in Appendix 6, a great deal of engagement has already been completed and a formal engagement programme on the masterplan projects concluded in early August 2017. Feedback from public engagement has been highly supportive of the preferred program as it was summarised for public feedback.

The summary for the community is shown below, in addition to a summary of feedback received to date.

PARKING

Improved parking facilities, within the town centre and on the fringes.

Parking has been a bone of contention in the Town Centre for decades now. The Parking project aims to address this by managing parking demand, providing more parking options and promoting alternative transport choices like public transport, walking and cycling.

We're proposing to provide carparks on the new arterial to reduce congestion in the town centre.

THE PROBLEM

There have been a number of trials to improve the parking situation but the fundamental issue is that there is currently limited supply and limited options for people wanting to come into town.

We have people driving around the town centre searching for parks, adding to the congestion and we have cheap parking fines leading to drivers flouting the rules.

Locals are consistently telling us that they avoid town because they can't get a park. This affects our authenticity and creates uncertainty for businesses.

We need to provide more options like public transport or park and ride to make it easy to get into town.

THE OPTIONS

To achieve our vision of improved access to town we need to change the way we think about transport and parking. Our community keeps telling us they want to see less cars and congestion in the town centre. We aren't going to solve our parking problems with a single solution – it will take a mix of things including:

- Better enforcement of existing parking options.
- Location appropriate restrictions and charges.
- Increasing charges to park right in town – meaning you should always be able to get a park if you're willing to pay for it.
- Limiting the supply of car parks to manage traffic in the town centre, but providing alternative options for getting around.
- Smarter technology to ensure drivers are making informed decisions on where to park.
- Multiple new off-street facilities (parking buildings)
- Park and ride facilities, providing viable alternatives to get into town.

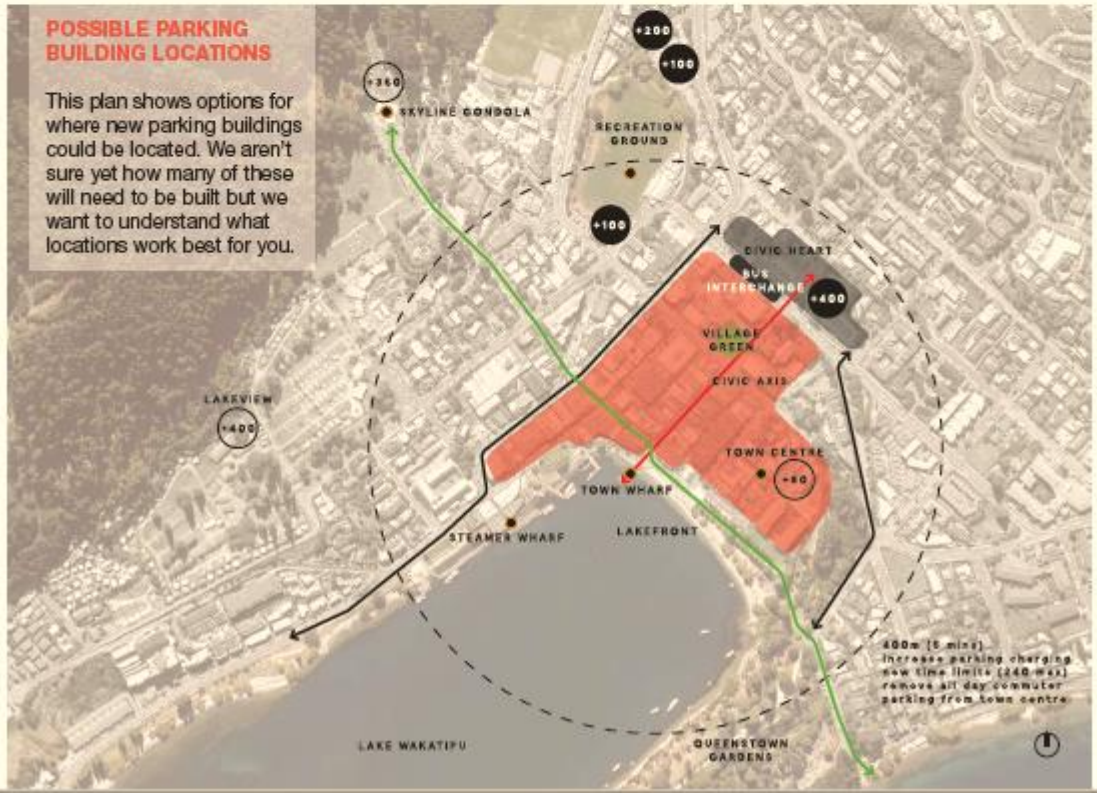


Figure 30: Community information explaining the preferred parking programme options in July 2017

POSSIBLE PARK AND RIDE LOCATIONS

This plan shows options for where new park and ride facilities could be located. Not all of these facilities will be built – we want to understand what locations work best for you.

Interested in the other options we considered? Take a look at ***www.qldc.govt.nz/queenstown-town-centre***

WE WANT TO KNOW

THE BENEFITS

- Easier access to parking – the right number of carparks in the right places.
- More space for people within the heart of town.
- Better access to parking information, both for locals and visitors.
- New park and ride and improved public transport provides viable alternatives to get into town.
- Less clutter and better looking streets.

- Do you support a shift from on-street to more off-street parking facilities?
- Do you think the proposed parking initiatives will help us achieve a more 'people-focussed' town centre?
- Are you willing to pay more to park closer to town?
- Would you use a park and ride facility in the proposed locations?

Figure 31: Community information explaining the preferred parking programme options in July 2017 (continued)

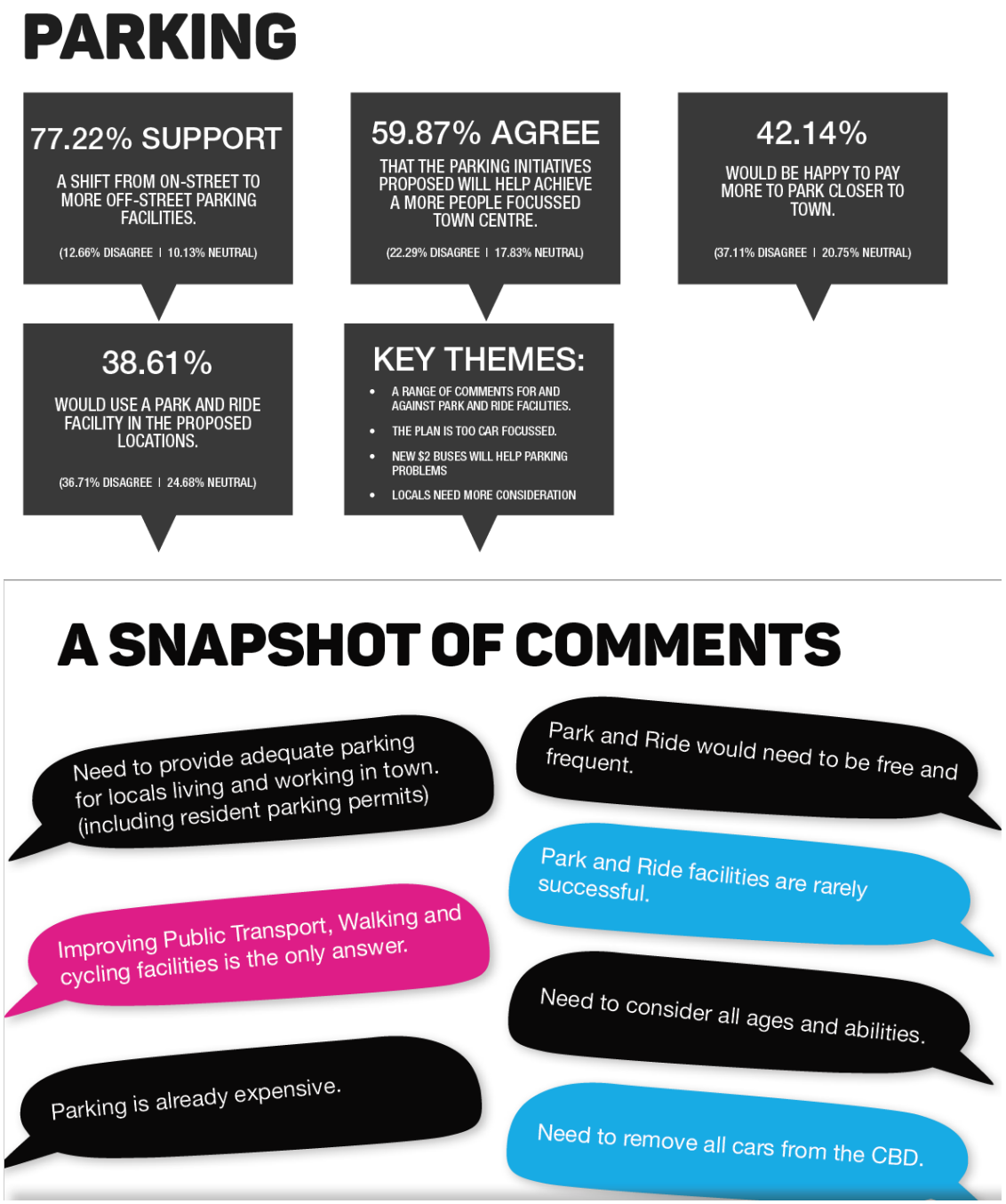


Figure 32: Snapshots of community feedback on the preferred parking programme in July 2017

5 Town Centre Parking Benefits

The benefits of successfully investing in the town centre parking were identified through the Investment Logic Mapping exercise (refer to benefits map – Appendix 3).

For each of the Town Centre Parking ILM benefit statements, a snapshot is outlined below of what the current state is relative to the area of benefit, and what the business gap is between the existing arrangements and the desired future state.

Table 10: Town centre parking benefits

Benefit Statement	Problem Statements Addressed	Existing Arrangements	Business Needs
Less congestion created by parking activity.	Town Centre Parking Limited transport options to access the town centre, low parking prices, poor layout, creates confusion, circulation, congestion and reduced amenity Town Centre Masterplan Limited options to easily access the town centre across a range of transport modes is creating congestion and frustration for visitors, and stopping residents from coming to town.	Traffic growth on the main arterial State Highway 6A to and through the town centre is continuing to grow, with traffic congestion now occurring daily on Stanley Street and Shotover Street during the morning and evening peaks with consequent low levels of service. The town centre zone has been extended through Plan Change 50 which will impact on access requirements to the town centre as will continued public and private developments. With predicted continued growth in resident and visitor numbers, this congestion will continue to increase without efficient intervention and implementation of measures to improve the provision of transport related services and infrastructure. Despite some measures introduced and trialled for shared spaces and pedestrian areas, there are many areas of conflict between traffic and pedestrians, especially on Shotover Street where pedestrians struggle to cross safely. It is generally accepted that congestion is increased through people circulating the town centre searching for available parking spaces.	***Strategic Response:*** • *Provide more affordable PT services.* • *Set parking charges to deliver appropriate occupancy rate and to encourage mode shift.* • *Supply appropriate parking by type and number that delivers travel demand efforts without reducing town centre visitation.* • *Use technology to inform users, improve experience, gather data and enable enforcement.* Initiatives to reduce the demand for parking will reduce the number of cars entering the town centre which will consequently reduce traffic congestion and improve access to the town centre for visitors and commuters. This could include: • Encouragement of the use of public and passenger transport through initiatives such as reduction in PT fares, more reliable and frequent services, linkages between services and introduction of bus priority measures to encourage more people to utilise PT. • Higher parking charges, pay and display and time restrictions will also potentially encourage alternative options such as PT, walking or cycling and consequently reduce congestion in the town centre.

Benefit Statement	Problem Statements Addressed	Existing Arrangements	Business Needs
Improved efficiency and optimal use of existing carparks.	Town Centre Parking Insufficient parking enforcement and low-level fines results in carpark users disrespecting the rules which leads to sub-optimal turnover and utilisation Carparking is at capacity, stopping residents coming to town which reduces town centre authenticity and creates business uncertainty Town Centre Masterplan Limited options to easily access the town centre across a range of transport modes is creating congestion and frustration for visitors, and stopping residents from coming to town Unconstrained growth in visitor numbers is placing demands on town infrastructure with negative flow-on impacts on locals and the environment.	Resident and ratepayer surveys identify parking as a key issue and one that detracts from the 'Queenstown Town Centre experience'. More congestion, as traffic increases, will lead to lower amenity values. Feedback identifies that the lack of parking, enforcement and campervans contribute to this dissatisfaction as does inadequate signage, information and wayfinding, as well as a lack of modern technology. It is recognised that there is considerable free and cheap parking with minimal time limits, both on and off-street within easy walking distance to the town centre which makes it more attractive to travel by private car and increases demand. This, combined with relatively expensive public transport, does not encourage alternative mode choices which consequently increases the demand for parking.	***Strategic Response:*** • *Set parking charges to deliver appropriate occupancy rate and to encourage mode shift.* • *Supply appropriate parking by type and number that delivers travel demand efforts without reducing town centre visitation.* • *Use technology to inform users, improve experience, gather data and enforcement.* The different needs of customers should be analysed (such as using the CALM parking model) to identify the optimum package of works, when integrated with other transport related business cases. Changes are required to both reduce the demand for parking and to improve the efficiency of the parking areas through appropriate charging regimes, time restrictions, location, information / signage and enforcement. Key to optimal use is the appropriate level of supply and optimising existing provisions. The level of supply needs to be related to the overall town centre development and initiatives to reduce the reliance on cars for accessing the town centre. As part of the development of options to improve efficiency and optimal use, any associated costs need to be determined and factored in: • Carparking meter machines cost over $20k each and it is estimated that it will cost in the order of $1m to introduce additional parking meters across the town centre and CBD. Although a high initial cost, this could be recovered if well-enforced and appropriate pricing. • Changes to parking restrictions and charges will likely require higher levels of enforcement and therefore cost (enforcement officers). Further consideration of park and ride options outside the town centre should also be undertaken to reduce the number of vehicles entering the town centre.

Benefit Statement	Problem Statements Addressed	Existing Arrangements	Business Needs
Improved Liveability and Visitor Experience	<u>Town Centre Parking</u> Carparking is at capacity, stopping residents coming to town which reduces town centre authenticity and creates business uncertainty. Proliferation of on street parking and parking apparatus diminishes the amenity value of the natural environment in the town centre and residential areas. <u>Town Centre Masterplan</u> As the town rapidly grows, town centre amenities increasingly focus on visitors, thus undermining the feeling of authenticity and locals' sense of belonging.	Destination Queenstown and QLDC measure visitor experience and resident satisfaction respectively through annual surveys. Although overall visitor experience continues to score very high in Queenstown (9/10 in the 2016 Designation Queenstown survey), the lowest score across all the categories was traffic and parking 6.6/10. This suggests that visitors' least favourite experience in Queenstown is traffic and parking. Resident satisfaction surveys between 2013-2015 consistently raise parking, roading and traffic congestion as the three main areas that QLDC should look to improve.	***Strategic Response:*** • *Supply appropriate parking by type and number that delivers travel demand efforts without reducing town centre visitation.* • *Use technology to inform users, improve experience, gather data and enforcement.* • *Improving amenity by ensuring carparking is sympathetic to the natural environment.* Better organisation of parking supply around the town fringes, reducing proliferation of parking and the dominance of cars in the town centre. Improved parking availability. Reduced circling for spaces, less congestion and better experiences, particularly for visitors. Less cars in the town centre, allowing the area to be more walkable and noticeably more about people than cars. Improved experiences for locals and visitors alike. A more authentic town centre that supports growth while celebrating it unique local culture and heritage.

6 Investment and Planning Partners

6.1.1 Queenstown Lakes District Council

The Queenstown Lakes District Council (QLDC) formulates the strategic direction for the district including transport planning, land development and managing the effects of land use in the district. QLDC is responsible for fully managing the local road network that, along with the state highway, forms the land transport network serving the Queenstown Lakes district.

Management of on-street parking and publicly available off-street parking is the QLDC's responsibility, along with providing public transport infrastructure such as bus shelters and information panels at bus stops. QLDC also regulates elements of the transport system through its parking enforcement and harbourmaster functions.

6.1.2 Otago Regional Council

The Otago Regional Council (ORC) is responsible for the operation of public transport services in Queenstown, which relies on the land transport network for transporting locals and visitors. This close linkage means public transport improvement initiatives, parking management, and arterial road projects must align and complement each other to address existing transport inefficiencies.

ORC have delivered a Wakatipu Basin Public Transport Network DBC which has informed the alternatives and option generation process in this business case.

6.1.3 NZ Transport Agency

The New Zealand Transport Agency (NZTA) has been an integral part of the Queenstown town centre planning, including discussions around parking challenges and potential solutions. They have played a significant role in the development of the recent Queenstown Integrated Transport Programme Business Case. While the NZTA may not be a funding partner for this programme, their involvement in the development of and support for the preferred approach in the context of the masterplan programme is critical.

6.2 Key Stakeholders

Given the scope of the Queenstown masterplan project, a wide range of stakeholders and investment partners have been engaged formally since January 2017. The project team has sought to proactively engage with these individuals and groups at key times to test and challenge the project options for future development of the town centre, including potential parking changes.

A full database was created and will be further populated as people and groups register an interest in the project. A stakeholder matrix that assesses the partner investors, external stakeholders and government ministers has been created for the Parking IBC as a tool to inform engagement during the future stages of the business case.

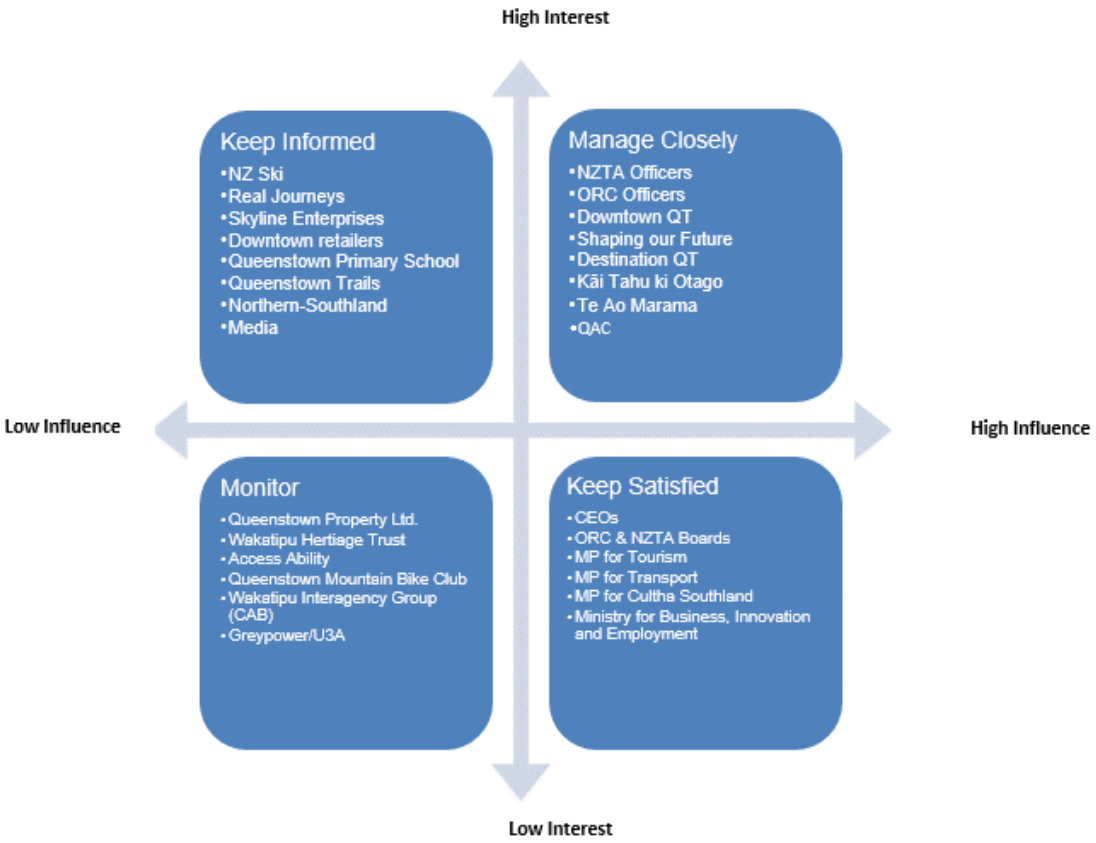


Figure 33: Parking Stakeholder Matrix

This stakeholder matrix is also supported by a project governance structure that ensures engagements and relationships are managed through constant sharing of learnings and through the best mix of informal and informal engagements that leverage new and existing relationships.

6.3 Advisory Group

The QLDC has established an independent advisory group to challenge project and design thinking as part of the development of the masterplan. The group meets monthly and provides impartial advice to help guide the masterplan programme along with quality assurance that what's being proposed will meet the needs of investor partners, stakeholders and the wider community.

Collectively, the advisory group have a strong interest in the future of Queenstown and enhancing the vibrancy of the town centre. They bring a diverse range of experience to the table in areas such as urban design, tourism, transportation, placemaking, the environment, community and commerce.

The advisory group members are listed in Appendix 4.

6.4 Stakeholder endorsement of the Strategic Case

The Strategic Case has been provided to agreed project and investor stakeholders for review and to feedback any changed requirements for this and other masterplan programme cases.

The feedback provided was solely focused on demonstrating a clear connection between project business cases and the masterplan programme to ensure they are considered as part of a wider effort.

7 Alignment to existing strategies / organisational goals

7.1 Supporting business cases

7.1.1 General

There are numerous related business cases, strategies and projects being developed concurrently with the Queenstown Town Centre Masterplan PBC, including the following:

- **Core dependencies:**
    - Queenstown Town Centre Arterials Detailed Business Case (previously Inner Links)
    - Queenstown Town Centre Public and Passenger Transport Facilities IBC
    - Queenstown Town Centre Spatial Framework
    - District Plan transport chapter review.

NB: a business case around smart cities technology may be developed to support the masterplan programme once the preferred direction is endorsed and the requirements are clearer.

Table 11: Scope for the masterplan projects

Business Case	Scope
Queenstown Town Centre Masterplan Programme Business Case	The Masterplan programme will: • show how land use, development, civic opportunities and infrastructure are sequenced • involve investors, partners, stakeholders and the community at key points • provide a framework, which manages the tensions and interface issues • coordinate a suite of projects that deliver against the vision for the Town Centre.
Queenstown Town Centre Indicative Arterials Business Case	Identification of a new arterial route that can provide improved access to the Town Centre and enable several other masterplan improvements.
Queenstown Town Centre Public and Passenger Transport Facilities Indicative Business Case	Determine what is required in the Queenstown Town Centre, to deliver quality public transport that is the first transport choice for residents and visitors.
Queenstown Town Centre Parking Indicative Business Case	Understand the Queenstown Town Centre parking needs, where parking should be delivered and what the outcomes of this are.
Queenstown Town Centre Spatial Framework	Development of a spatial framework to show visually how the public and private spaces will be better connected, how the key transport interventions will integrate with the Town Centre and how the developments will better connect the built and natural environment while celebrating the heritage of the region. This Spatial Framework will include a Masterplan Summary document that includes a set of design guidelines to inform the town centre's development in a consistent way.

Business Case	Scope
Town Centre Community Heart Business Case	This case will progress the requirements for a community heart and outline what needs to be done to deliver it.
Queenstown Town Centre Smart Cities Technology Indicative Business Case	*Identify how technology can support and enhance the Masterplan vision, with focus on optimising the transport systems and their interaction with customers.*

7.1.2 Significant dependencies:

- Lakeview development including a hot pool and accommodation proposals.
- Civic opportunities including Project Connect (QLDC new offices), a potential town centre library and other community facilities.
- Queenstown Integrated Transport PBC.
- Wakatipu Public Transport PBC.
- Private development interface.

7.1.3 Queenstown Integrated Transport PBC (2017)

The NZTA is developing a Programme Business Case that aims to deliver an integrated package of transport projects (QITPBC).

The QITPBC has identified the following key problems:

- The significant growth in visitors, residents and vehicles, leads to reduced trip reliability and worsening customer experience across the network.
- Car dominance and associated congestion is affecting the liveability and attractiveness of the area.

There is significant alignment between the Town Centre Masterplan Business Case and the QITPBC.

The programme of activities selected for the QITPBC share a common focus on balanced public transport and active modes in addition to recognising the significant role that effective transport to the town centre has on visitor and resident experiences. The outcomes targeted by the preferred programme provide guidance to and support of the ambitions around access for the masterplan programme.

These outcomes include:

- 30% alternative mode share (by 2045 up from 15%)
- 329 public transport patrons per hour by 2045 (Frankton to Queenstown)
- 225 fewer vehicles per hour by 2045 (Frankton to Queenstown)
- 16-minute reduction in travel time by 2045 (between Frankton and Queenstown)
- 3-minute travel time variability by 2045 (difference between 15 and 85 percentile AM peak period travel time).

The QITPBC also draws on common market research that demonstrates the impact poor public transport offerings, congestion and car domination are having on visitor and resident experiences. This includes the visitor and resident surveys completed by QLDC, Downtown QT and ThinkPlace.

The table below also demonstrates the alignment between the investment objectives of the masterplan and the QITPBC.

Table 12: Alignment of objectives/benefits between the programme business cases

Town Centre Masterplan PBC Investment Objective/ Benefits	Queenstown Integrated Transport PBC Investment Objective
• People enjoy spending time in town, because the built environment complements the natural environment, referencing local history and culture. • Queenstown has a liveable, thriving and authentically NZ town centre, where visitors and locals freely mix. • Improved access to the town centre for all. • Increased commercial activity, without major negative impact on the environment or residents' enjoyment.	• To improve network performance for private vehicles, public transport and cycling. • Improved liveability and visitor experience.

The masterplan project also aligns with current thinking around when transport solutions need to be put in place to support the needs of the town centre and the district. The draft implementation schedule for the QITPBC is shown below.

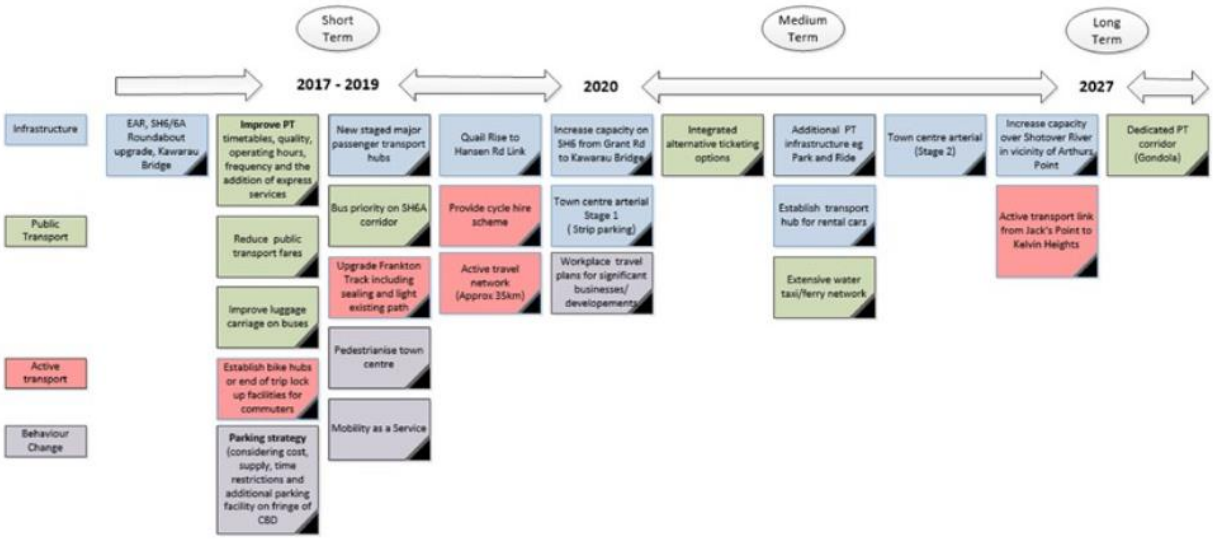


Figure 34: Draft Queenstown Integrated Transport Implementation Programme (Source: NZTA)

7.2 Related strategies and policies

In addition to the alignment with the QITPBC, this IBC takes guidance from many current and developing strategies and plans. Through building on and integrating many varied interest and aspirations, this programme seeks to successfully identify and coordinate the best possible solutions through supporting projects delivered over a 30-year horizon. The full list of related strategies is shown below.

Table 13: Related strategies and policies

Strategy	Description	Alignment with the Town Centre Parking IBC & Contribution to Benefits
DISTRICT		
Long Term Plan 2015-2025	For Infrastructure, QLDC's 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* • *are affordable for the district.* Significant issues identified in the Infrastructure Plan include, for Parking, '*Visitor and resident ability to access businesses and accommodation through car parking in town centres'*.	The principal options identified to address the 'significant issues' will be considered in the Parking IBC including: • 'Park and ride' facilities. • Development of car parking in Athol Street, Boundary Street and Ballarat Street. • Review District Plan car parking rules (note District Plan under full review). • Manage parking demand through improved cycling, walking, parking pricing and education. • Improve public transport. This will contribute to the benefits through easing congestion (with less vehicles entering the town centre) and improving the efficiency of parking provisions, working with other transport-related business cases to determine the optimal solution and programme of works.
District Plan	Operative District Plan: Chapter 14 'Transport' includes the following key objectives and policies related to parking: **Objective 4 - Town Centre Accessibility and Car Parking** - *Town centres which are accessible to pedestrians and vehicles, and legible to all persons wishing to access them, commensurate with other town centre objectives and policies*. **Policies:** 4.1 *To achieve a general reduction in the dominance of vehicles and heavy commercial vehicles within each town centre through the on-going establishment of off-street car parks* 4.3 *To require all activities and developments to contribute towards the provision of off-street vehicle parking.* 4.4 *To provide an integrated and well located off-street car parking resource around the periphery of the town centres.* 4.5 *To provide off-street parking within particular areas of the town centres in order to limit and reduce traffic flowing into*	The District Plan sets objectives, policies and rules through which QLDC can manage adverse effects associated with development. Rules include maximum/minimum parking requirements for development Meeting objectives and policies will assist in realising the benefits of this IBC for town centre parking, realising the town centre vision and implementing the strategic response of supplying appropriate parking by type and number that delivers travel demand efforts without reducing town centre visitation. Integration with other transport-related business cases will support Objective 4 and its policies. The District Plan is currently under review and this should be taken into account in terms of considering options for town centre parking.

Strategy	Description	Alignment with the Town Centre Parking IBC & Contribution to Benefits
	and through those areas and thereby retain the character of the centres. 4.7 *To encourage on-site parking in association with development and to allow shared off-site parking in close proximity to development in residential areas to ensure the amenity of neighbours and the functioning of streets is maintained.* **Objective 5 - Parking and Loading – General** - *Sufficient accessible parking and loading facilities to cater for the anticipated demands of activities while controlling adverse effects.* ***Policies:*** 5.1 *To set minimum parking requirements for each activity based on parking demand for each land use while not necessarily accommodating peak parking requirements* (Other policies under Obj.5 provide guidance on design requirements)	
Queenstown Transportation and Parking Strategy Study (2004)	Established a parking strategy based on traffic and parking model (Central Area Logistics Model or 'CALM'). Proposed preliminary studies on increasing size of existing carparks and new underground carpark facilities at Man Street and Robins Road.	The IBC will review initiatives implemented through these strategies and others and build on their success or otherwise. Issues in gaining support and approval for previously identified solutions as 'stand-alone' projects will be reduced through the current approach of integration between various transport and town centre related business cases where wider benefits can be demonstrated. The difference between commuter parking and visitor/short-term parking will be assessed. This will assist in realising the benefits of this IBC as well as those of the related transport business cases. Strategic responses to realise the benefits, that have been recognised in previous and current reports, include:
QLDC Future Links Transport & Parking Strategy (2005)	Solutions were identified for the recognised parking and roading problems within the district. The CALM parking model was used to develop this strategy including how many parking spaces were identified to be added to the carpark inventory.	
Queenstown Town Centre Strategy (2009)	Considering rapid growth over the previous 15 years, this strategy sought to revisit associated growth pressures.	

Strategy	Description	Alignment with the Town Centre Parking IBC & Contribution to Benefits
	The strategy recognises that, whilst the aim is to plan alternative ways of providing access to the town centre, parking makes an important contribution to the accessibility of the town centre. The recommended approach was for the management of parking to support public transport such as maximum (4 hour) stays and the provision of greater clarity around roles of parking facilities e.g. commuter vs short stay vs visitor parking.	• Setting charges to deliver an appropriate occupancy rate whilst encouraging mode shift. • Type and number of parking facilities should meet travel demand efforts whilst not reducing town centre visitation. • Improved use of technology to inform users, gather data and enable more efficient enforcement. • Improve amenity of carparking facilities.
Queenstown Town Centre Transport Strategy (2016)	Identified short-term, medium-term and long-term projects, including extending the charging area to the buffer zone around the CBD zoned area and maintaining supply at 2015 parking levels. Noted that parking strategies needed to consider the staged removal of on-street carparking for pedestrian-friendly street upgrades. Proposals also included making all day parking more expensive and less convenient in downtown Queenstown with increased parking charges used to fund passenger transport incentives. The Council received 311 submissions on this issue with 51.4% saying we should not increase parking charges and use revenue to make public transport more affordable and 48.6% saying yes.	
Queenstown Town Centre Transport Strategy – the Next Steps (2016)	This strategy includes a series of initiatives towards reducing congestion and the reliance on private cars such as parking initiatives and traffic demand management measures.	
Queenstown Town Centre Transport Programme Business Case (2016)	The Queenstown Town Centre Transport PBC identifies that business case planning for Inner Links is required so it can be progressed if parking and public transport initiatives 'fail to achieve the required mode shifts'. Identifies that an operational review of the charges and time restrictions of on-street and off-street parking be conducted every three years with the first review proposed for 2015/16.	The Town Centre Arterials DBC (previously Inner Links) is progressing (strategic case complete). The principles of locating any new parking facilities near any new proposed arterials is being considered in the Arterials Economic Case The success of changes to parking restrictions that have recently been implemented will be reviewed.

Strategy	Description	Alignment with the Town Centre Parking IBC & Contribution to Benefits
Queenstown Integrated Transport PBC (2017)	The NZTA is developing a Programme Business Case that aims to deliver an integrated package of transport projects (QITPBC). The QITPBC has identified the following key problems: 1. The significant growth in visitors, residents and vehicles, leads to increasing trip unreliability and worsening customer experience across the network. 2. Car dominance and associated congestion is affecting the liveability and attractiveness of the area. NZTA is developing a programme business case that aims to deliver an integrated package of transport projects (QITPBC). The outcomes targeted by the preferred programme provide guidance to and support of the ambitions around access for the Masterplan programme. These outcomes include: • 30% alternative mode share (by 2045 up from 15%) • 329 public transport patrons per hour by 2045 (Frankton to Queenstown) • 225 fewer vehicles per hour by 2045 (Frankton to Queenstown) • 16-minute reduction in travel time by 2045 (between Frankton and Queenstown) • 3-minute travel time variability by 2045 (difference between 15%ile and 85%ile AM peak period travel time.	The implementation programme around behaviour change includes delivery of a Wakatipu parking strategy that considers cost, supply, time restrictions and additional parking facility on the fringe of the CBD. There is significant alignment between the Town Centre Masterplan Business Case and the QITPBC. The programme of activities selected for the QITPBC share a common focus on balanced public transport and active modes, in addition to recognising the significant role that effective transport to the town centre has on visitor and resident experiences. The QITPBC also draws on common market research that demonstrates the impact poor parking provision, ineffective public transport offerings, congestion and car domination are having on visitor and resident experiences. This includes the visitor and resident surveys completed by QLDC, Downtown QT and ThinkPlace.

Strategy	Description	Alignment with the Town Centre Parking PBC & Contribution to Benefits
REGIONAL		
Wakatipu Transport Study – Parking Report (2007)	Updated the 2004 parking strategy, noted high level of parking search and predicted demand increases of 5% per annum. It proposed staged construction of six new carparking facilities, which would increase the supply by 2,453 parking spaces. Two carpark facilities have since been constructed. The report also noted '*However, because demand increases by 5% year on year, the benefits of the extra capacity are eroded by additional demand*'.	The parking principles and philosophy are being carried through with this business case, updating of the CALM parking model, which was established for the 2007 report. Recommended policies will form part of the consideration in this IBC including: • Signage and information to make the parking in Queenstown easy to understand and use. • Keeping the parking supply in the built-up area low so that congestion from cars entering the town to park is minimised. • Providing new parking outside built-up areas by locating it at park and ride sites. • Using parking prices as a mechanism to control demand. • Using improved enforcement policies. • Improving the quality of parking in Queenstown. • Introducing the changes very gradually and with an effective monitoring and evaluation programme to ensure that any changes meet QLDC's transport and economic development objectives. Many of these policies are in keeping with the current proposed strategic responses to realise benefits of the Parking IBC.

OTHER		
Queenstown Downtown Commercial Strategy (Downtown QT Association 2015)	Through a stakeholder-led initiative, this strategy aims to ensure that the downtown area develops strategically in alignment with the region's wider economic, social and tourism strategies. "*Traffic management and parking was the most contentious topic from stakeholder feedback with 86% of respondents rating satisfaction average or below average. Priority needs to be given to improving performance*." With respect to parking, the strategy gave the following objectives: ***Longer Term Parking Solutions*** *- Support strategies to reduce the number of vehicles coming into the Town Centre through park and ride developments.* ***Smart Parking*** *- Leverage technology to provide greater visibility of availability, enhanced customer experience and pricing flexibility to support Town Centre business*.	An integrated approach with future parking initiatives will ensure alignment with both the district's and region's economic, social and tourism strategies to meet a common goal of improved resident and visitor experience. Park and ride developments will be linked to improved PT facilities and services to encourage use and consequent fewer vehicles entering the town centre.

8 Activity development (Economic Case)

8.1 Geographical & Environmental Context

8.1.1 Areas of focus and influence

The focus area of this IBC is the Queenstown town centre. However, the full extent of parking provisions that service the town centre are considered. Other provisions that impact parking such as park and ride locations and public transport connections, typically located outside the town centre, are also considered to enable a complete assessment of potential demand and future options.

It is acknowledged that this programme also has an interest and influence in parking and transport allocation across the whole district. Given the programme has key objectives around reducing congestion around parking searches, improved parking management and improved town centre experiences, the solution needs to utilise a wider view that helps to inform and educate motorists earlier in their trip to Queenstown.

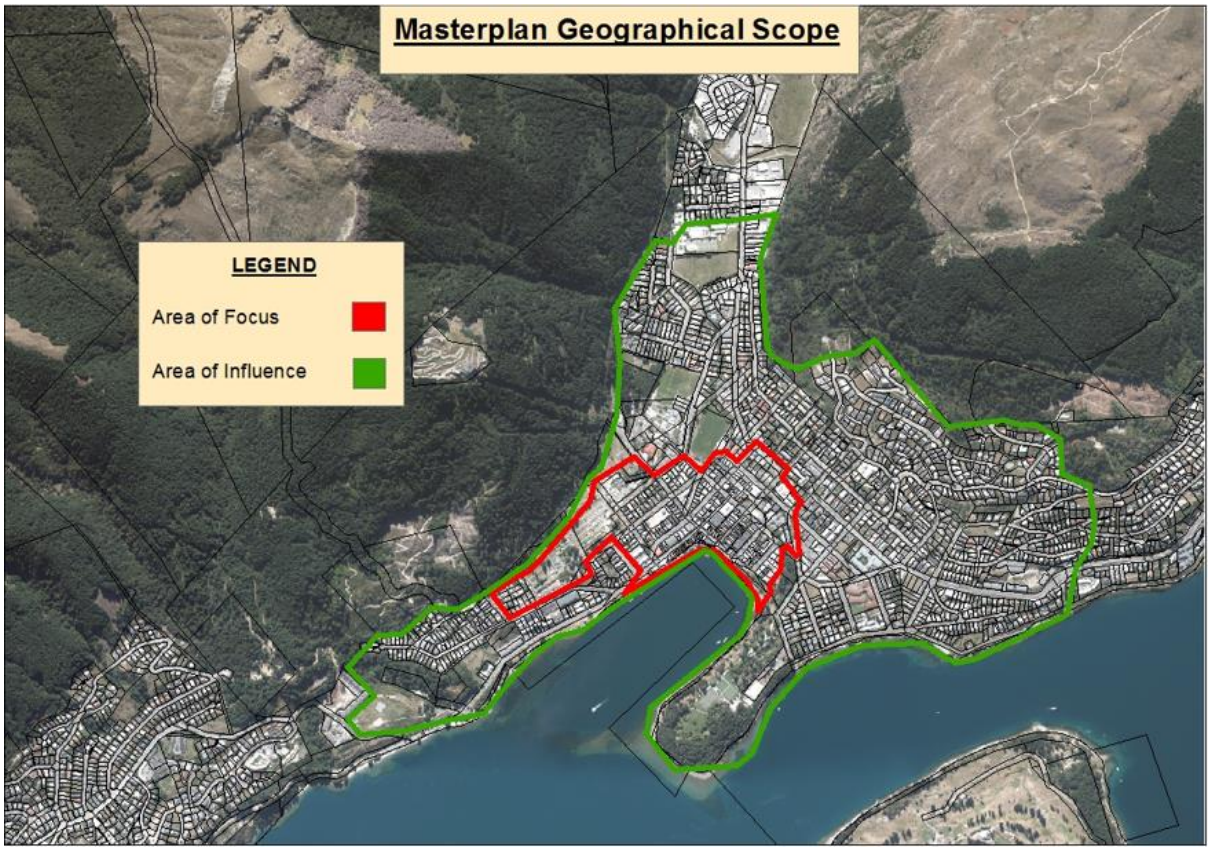


Figure 35: Masterplan Geographical Scope

8.1.2 Spatial Framework impact on parking

As part of the masterplan, a spatial framework is being created that will show the significant spatial moves and the integration of key transport projects. The map below shows some of the initial thinking around the public realm moves in relation to the Masterplan transport projects. These moves will require parking spaces to be removed and potentially relocated. This is explained further in the options analysis in Part B – Programme Development.

Figure 36: The preferred masterplan programme demonstrating the coordination of programmes through the spatial framework

8.2 Social Context

The 2017 Queenstown Integrated Programme Business Case provided a useful social snapshot of the Queenstown area that is relevant to this programme.

"Queenstown is one of New Zealand's premier tourist destinations offering a diverse mix of commercial, civic, cultural, entertainment and sporting activities to both international and domestic visitors. The residential and tourism growth in Queenstown (shown in the strategic case) is placing strain on existing infrastructure, particularly housing".

Source: 2017 Queenstown Integrated Programme Business Case.

Statistics New Zealand applies a scale of 1 to 10 to depict levels of social-economic deprivation. A value of 10 indicates that the meshblock is in the most deprived 10 percent of areas in New Zealand, according to the NZDep2013 scores.

The map below illustrates the level of deprivation in the Queenstown area by census meshblock, with a small area of high deprivation in the south west of Queenstown, while most of the study area has a deprivation level between 2 and 6. The deprivation scores are based on nine different dimensions as outlined in the diagram.

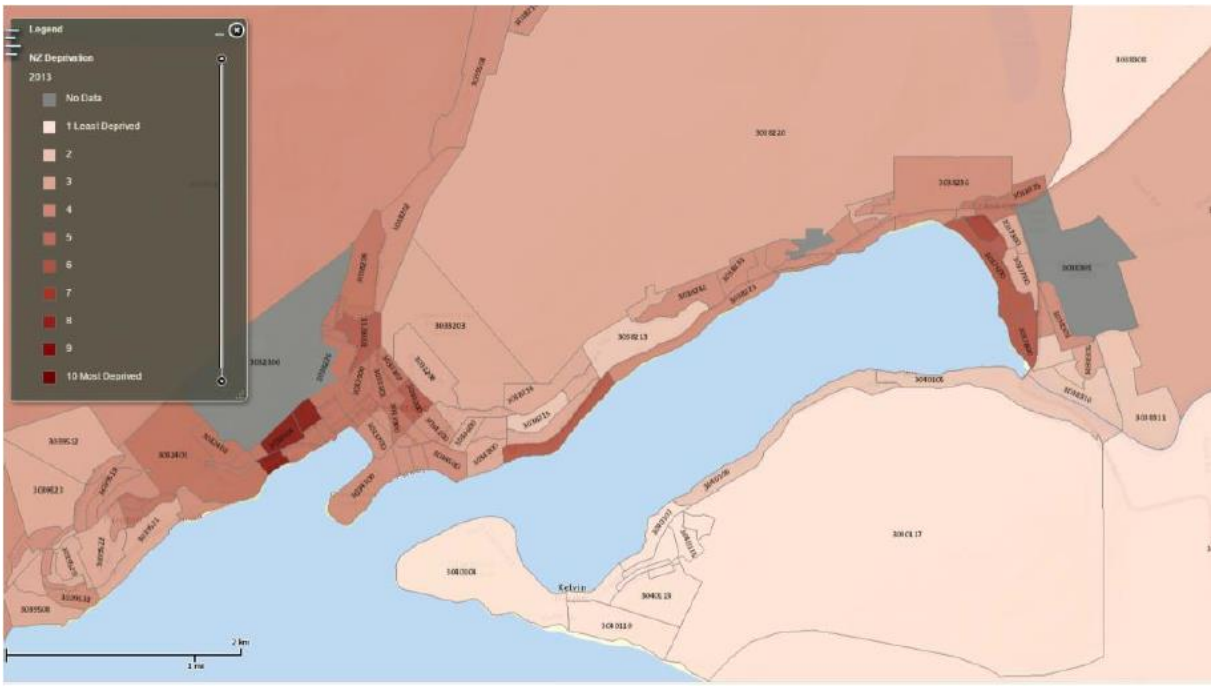


Figure 37: Level of Deprivation in Queenstown

The median income for people in this district has not kept pace with the local price of living, which creates growing social pressures. Despite the growing wealth in the area, the district has a significant proportion of people on wages that are lower than the national average. The chart below shows the latest display of this comparison from the Infometrics economic profile for the district (sourced from the QLDC website).

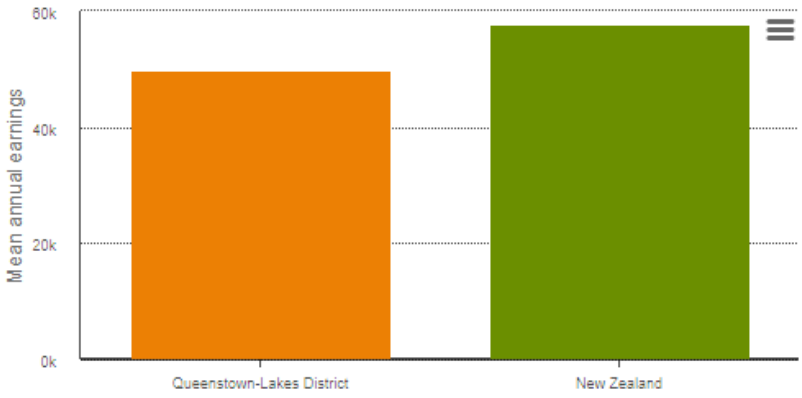


Figure 38: Mean annual earnings in Queenstown Lakes District
(Source – Queenstown Lakes District Economic Profile: https://ecoprofile.infometrics.co.nz/queenstown-lakes+district)

This imbalance needs to be considered in the context of living costs derived from residential properties. Notably, the proportion of income dedicated to residential property costs (renting or purchasing) for people in this district far exceeds the national average due to climbing property prices and a lack of adequate supply. Queenstown Lakes now has a median house price of over $1 million, a mantle shared with Auckland. In fact, house prices are up 68% in the four years between July 2012 and July 2016 and housing affordability is having an impact on people's travel patterns. Housing affordability in Queenstown is now over 15 times average earnings, significantly higher than the New Zealand average of 8.8 The chart below demonstrates the rental affordability index for the region as collated by Infometrics. This index presents the ratio of the

average weekly rent to average weekly earnings. A higher ratio, therefore, suggests that average rents cost a greater multiple of typical incomes, which indicates lower rental affordability.

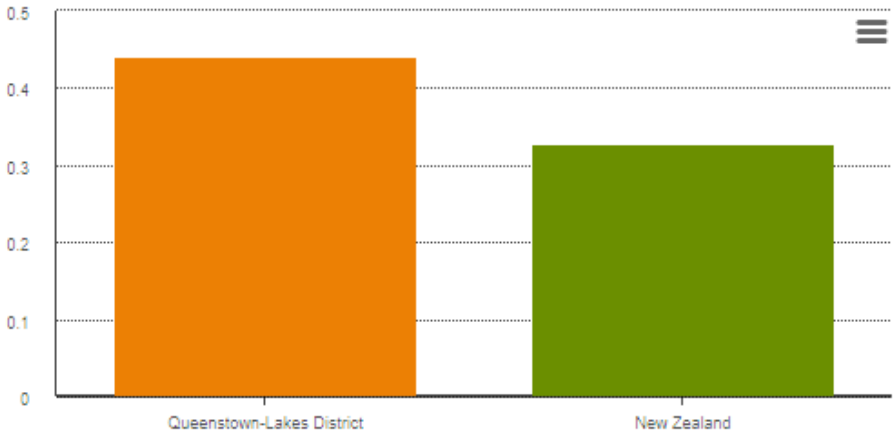


Figure 39: Rental affordability index for the district
(Source – Queenstown Lakes District Economic Profile: https://ecoprofile.infometrics.co.nz/queenstown-lakes+district)

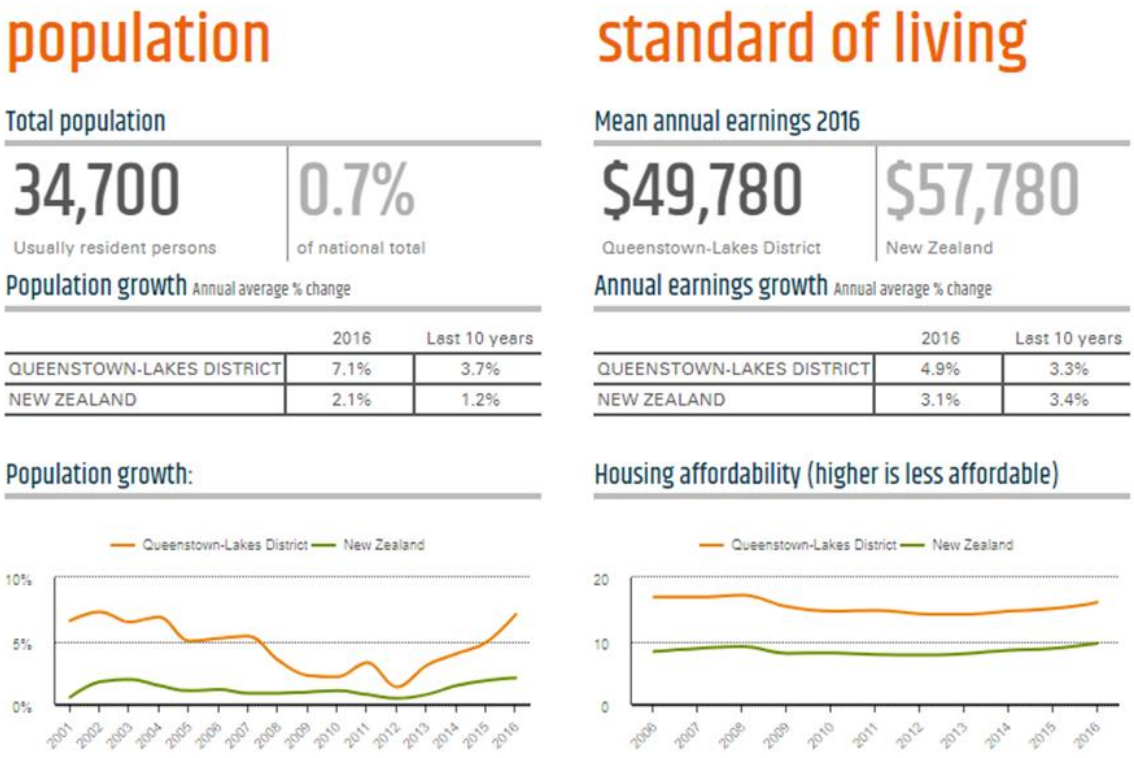


Figure 40: population growth and standard of living in Queenstown Lakes District
(Source – Queenstown Lakes District Economic Profile: https://ecoprofile.infometrics.co.nz/queenstown-lakes+district)

This affordability situation also needs to be considered in the context of growth in the district, the pressure this puts on infrastructure and services, and what this means for local infrastructure funding. In addition to

having a disproportionate level of residents to visitors, much of the resident base and local workforce have low levels of disposable income (demonstrated through a standard of living index shown above).

This situation manifests in other areas, such as transport choices. Due to the lack of attractive and competitive transport options (as shown in the evidence), the private vehicle is the main form of transport for all, including the low-income earners in the services industry. This reliance causes congestion at peak times and the parking search circulation as this workforce looks for cheap and free public parking.

An improved public and passenger transport programme stands to provide significant social benefit in Queenstown. As shown in the ILM discussions, much of the investment value stems from improving access to the town centre and reducing the impacts of the private vehicle as part of a wider collection of strategic interventions in the Queenstown Town Centre Masterplan.

8.3 Economic context

Queenstown's town centre offers a host of attractions for visitors and forms a gateway to planned journeys and experiences through the region and beyond. Therefore, the ability for the town centre to shape formative impressions of New Zealand and the region for visitors, is immense.

Queenstown is a significant player in the New Zealand tourism industry due to its ability to attract a large proportion of the nation's tourist expenditure.

Monthly regional tourism estimates from the Ministry of Business Innovation and Employment (MBIE) found that the annual tourism expenditure exceeded $2 billion in Queenstown in the year to October 2016. Queenstown is third to Christchurch and Auckland for international visitor value and represents 13% of the national total.

The table below illustrates Queenstown's relative importance as a tourist destination from both a domestic and international perspective. The strong performance in international numbers demonstrates the value that Queenstown holds as a gateway to other regions and the rest of the country.

RTO ($millions)	Domestic	International	Total	Market Share
Auckland	3,498	3,987	7,485	29%
Christchurch	1,255	918	2,173	8%
Queenstown	681	1,434	2,115	8%
Wellington	1,344	692	2,026	8%
Waikato	1,060	336	1,396	5%

Figure 41: Queenstown's relative importance as a tourist destination

(Source – http://www.mbie.govt.nz/info-services/sectors-industries/tourism/documents-image-library/key-tourism-statistics.pdf)

Economic performance (measured by GDP) in Queenstown and the Wakatipu Basin is growing at a significantly higher rate than the New Zealand average and measured $1,299 billion in the year to March 2016; up 9.9% from a year earlier. New Zealand's GDP increased by 2.5% over the same period.

Economic growth in Queenstown and the Wakatipu Basin averaged 4.4% pa over the last 10 years compared with an average of 1.8% pa in the national economy.

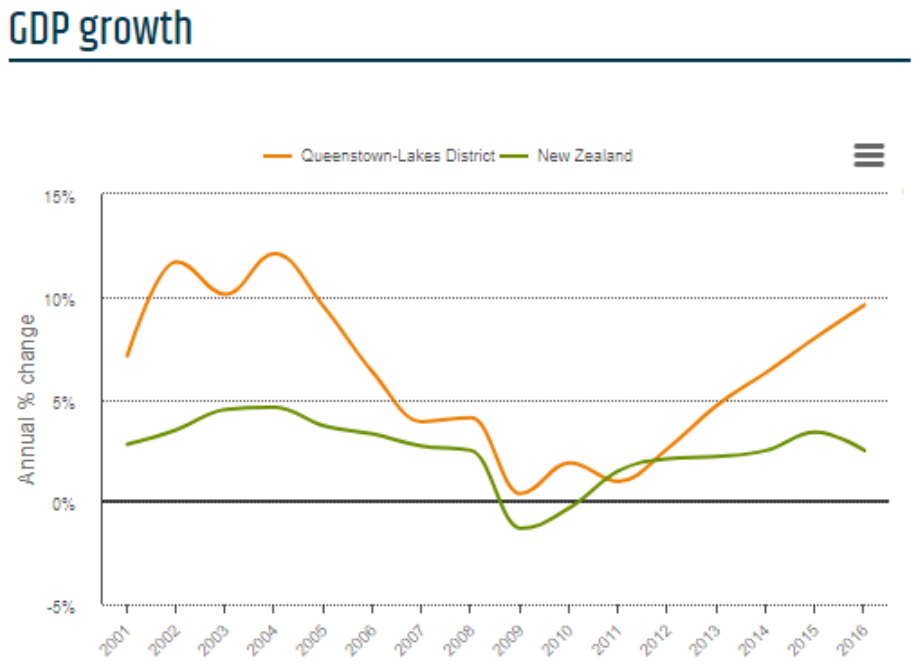


Figure 42: Economic Performance of the district compared to New Zealand
(Source - https://ecoprofile.infometrics.co.nz/queenstown-lakes%2bdistrict/Gdp)

8.3.1 The impact of congestion

The analysis completed in the Queenstown Integrated Transport Programme Business Case demonstrates that the cost of congestion in Queenstown is significant and is forecast to grow considerably. This calculation has been completed using the Queenstown Lakes District Transportation Model. Like this programme, it includes the future forecast years of 2025 and 2045.

"Analysis of two key model outputs has been undertaken being vehicle operating costs and the value of time using the NZ Transport Agency Economic Evaluation Manual procedures. Costs have been calculated by estimating the travel time and vehicle operating costs when there is no congestion present and comparing this to the base model congestion taking into account the traffic demand by time of day and network operating conditions.

The resultant annualised total costs of congestion demonstrate that the current economic cost of congestion of $35 million and is expected to more than double in the next 30 years."

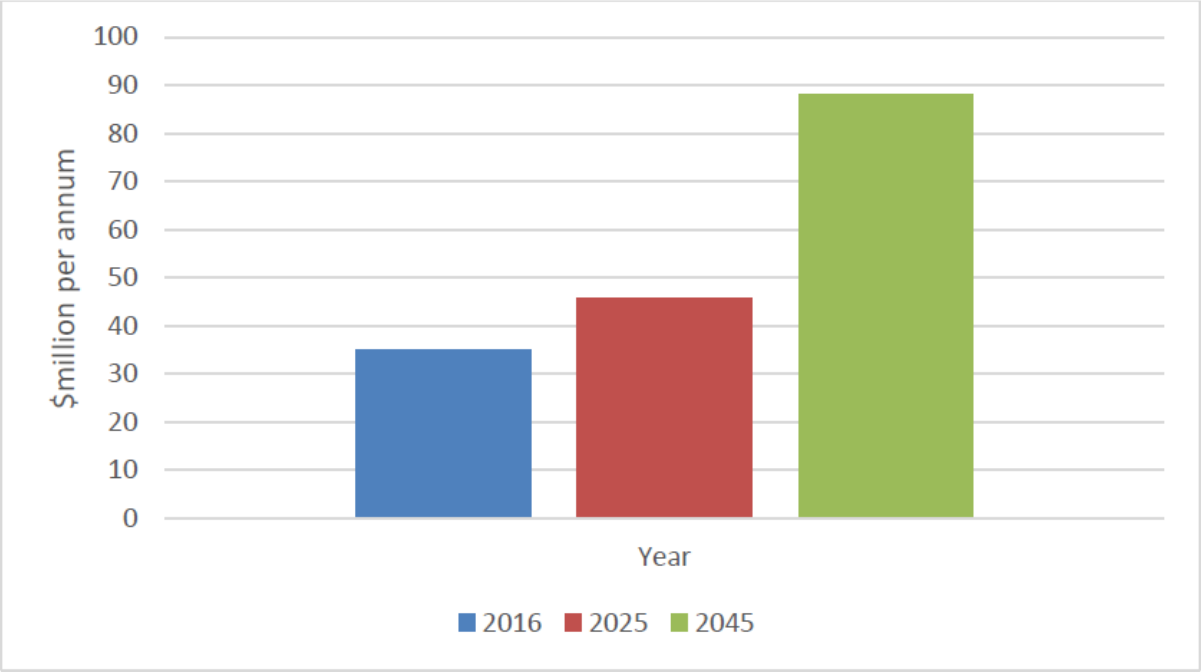


Figure 43: The cost of congestion in Queenstown Commercial context

Parking availability and effective management of that parking, alongside public transport, play an important role in supporting and maintaining the local, regional and national economy, while also meeting the needs of the growing local population.

As noted in the evidence presented in section 6, the biggest challenge flagged by residents and visitors alike is transport, which includes parking, road efficiency and public transport service levels.

A change in how parking is provided and managed in Queenstown will enable better transport movement around the town centre, which will help to grow the economy and enhance the liveability and visitor experience in the town centre.

The large amount of free parking (circa 3,000 spaces when including fringe CBD street parking), inexpensive private and public carparking, small enforcement charge for non-compliance, and community sentiment about increase in pricing all comes together to create a challenging economic environment.

8.4 Understanding and applying appropriate supply

Over the last 15 years, numerous planning studies and reports completed around parking and transport have provided guidance for the Queenstown town centre and the wider Wakatipu Basin.

A significant shift to note in these reports is the better understanding of supply levels and the way they relate to an efficient transport network and an attractive and people-friendly town centre.

The Queenstown Transportation and Parking Strategy Study of 2004 recommended enabling growth by increasing capacity and supporting a growth in demand. The downside of this approach is the way it encourages reliance upon a single mode of transport, i.e. the private vehicle. The flow-on effect of this approach is detraction from town centre public spaces due to the focus on facilitating cars and parking as opposed to public transport use and walking within the town centre. This strategy also may not have envisaged that such a large component of the congestion experienced around the town centre is attributable to motorists looking for a parking space, often unsuccessfully.

The evidence presented in this IBC, alongside learnings from many other cities, demonstrates that enabling ongoing growth in supply of parking to meet demand does not align with common Masterplan goals around more efficient roadways, more use of public transport and better public spaces.

Throughout the Queenstown masterplan programme, the user experience has been prioritised through achieving a mix of congestion reduction, network efficiency, improved public realm and provision of adequate supply. This approach enables fresh thinking around how demand, supply and mode choices can be managed to deliver a better result for the town centre.

Demand has not been constrained in the past and previous interventions may have been too small or not well integrated enough to ensure achievement of the benefit. For example, parking charges have been introduced and increased in the past, but at a level that allowed for adaptation without the desired behaviour change taking place. Strategic constraints (such as broader conversion of free areas to paid) have not been applied and price has not been used as a strategic lever to transfer people onto active transport modes. This IBC investigates the level to which limiting supply to an appropriate level can help optimise the level of traffic in the arterials and in the rest of the township to avoid the negative impacts of the motor vehicle in the town centre. Appropriate supply also sends signals to people coming in to use the carparks on the outside of town.

The issue of parking within a growing tourism town centre is complex and needs multiple interventions to manage and influence travel and visitor behaviours. By encouraging people to stay on arterials and to access carparks directly instead of 'hunting for a park', the number of private vehicles coming into the town's core is reduced, which leaves this space more open for shoppers and visitors to enjoy. These changes in behaviour will assist in reducing the amount of circulation (currently 30%) which in turn will affect traffic congestion.

Appropriate supply is critical for the proposed programme and it is the subject of investigation during this business case development. Identifying appropriate supply in an integrated transport sense provides a strong link between public transport uptake targets, traffic flow levels and better utilisation of the town centre.

The diagram below demonstrates how parking, public transport and private vehicle travel can be considered and managed to enable a more balanced mix within the town centre that puts less pressure on parking infrastructure. The key item to note in this diagram is the need for car travel to stabilise while other modes are used to accommodate growth, notably public transport, coach, cycling/walking and ultimately a mass transit solution (shown in green). The mass transit solution is not yet identified but it could include a gondola or light rail service (for example).

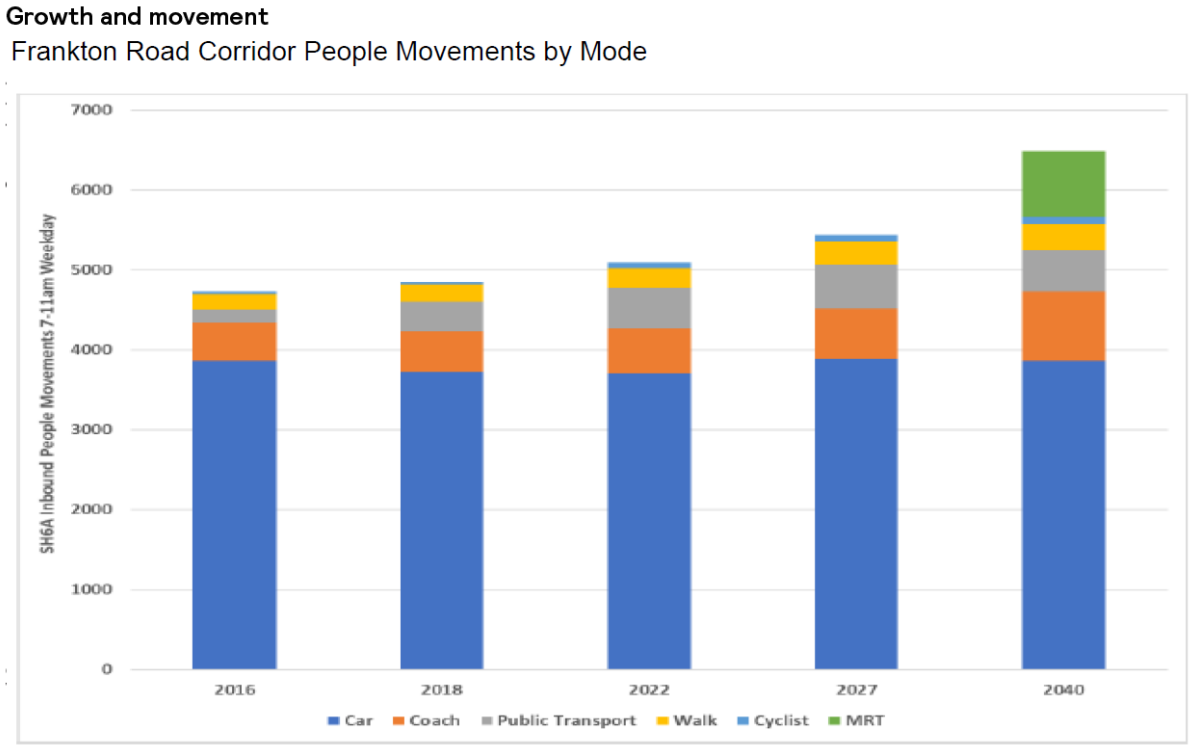


Figure 44: A breakdown of inbound traffic on Frankton road by trip type.
(Source – Queenstown Town Centre Transport Modelling 2017)

9 Option development and assessment

Building on the work completed to establish the ILM, Rationale and Beca worked with project stakeholders to develop a longlist of programme options. As shown in the diagram below, the project team started the conversation with a set of strategic options that built on the work delivered in the past, while demonstrating the ability to address the agreed problems and meet the investment objectives.

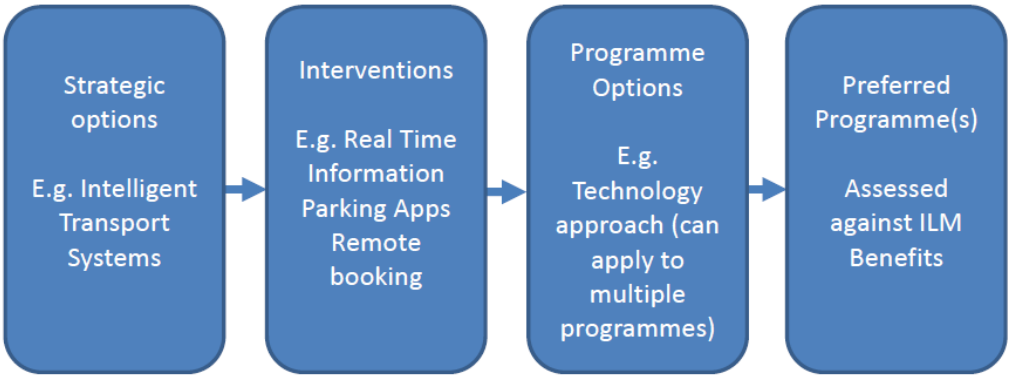


Figure 45: The programme development process

Within each strategic option, a set of targeted interventions were developed. These interventions were then grouped in logical programmes that aligned with a level of ambition (from least to most). This allowed the group to then consider the merit of each programme using a detailed Multi Criteria Analysis (MCA).

The strategic options have been discussed at length with a range of stakeholder groups to ensure they represent the right options and supporting interventions to address the agreed problems.

The diagram below demonstrates how workshops have been used to develop and inform options development and evaluation throughout the business case development process.

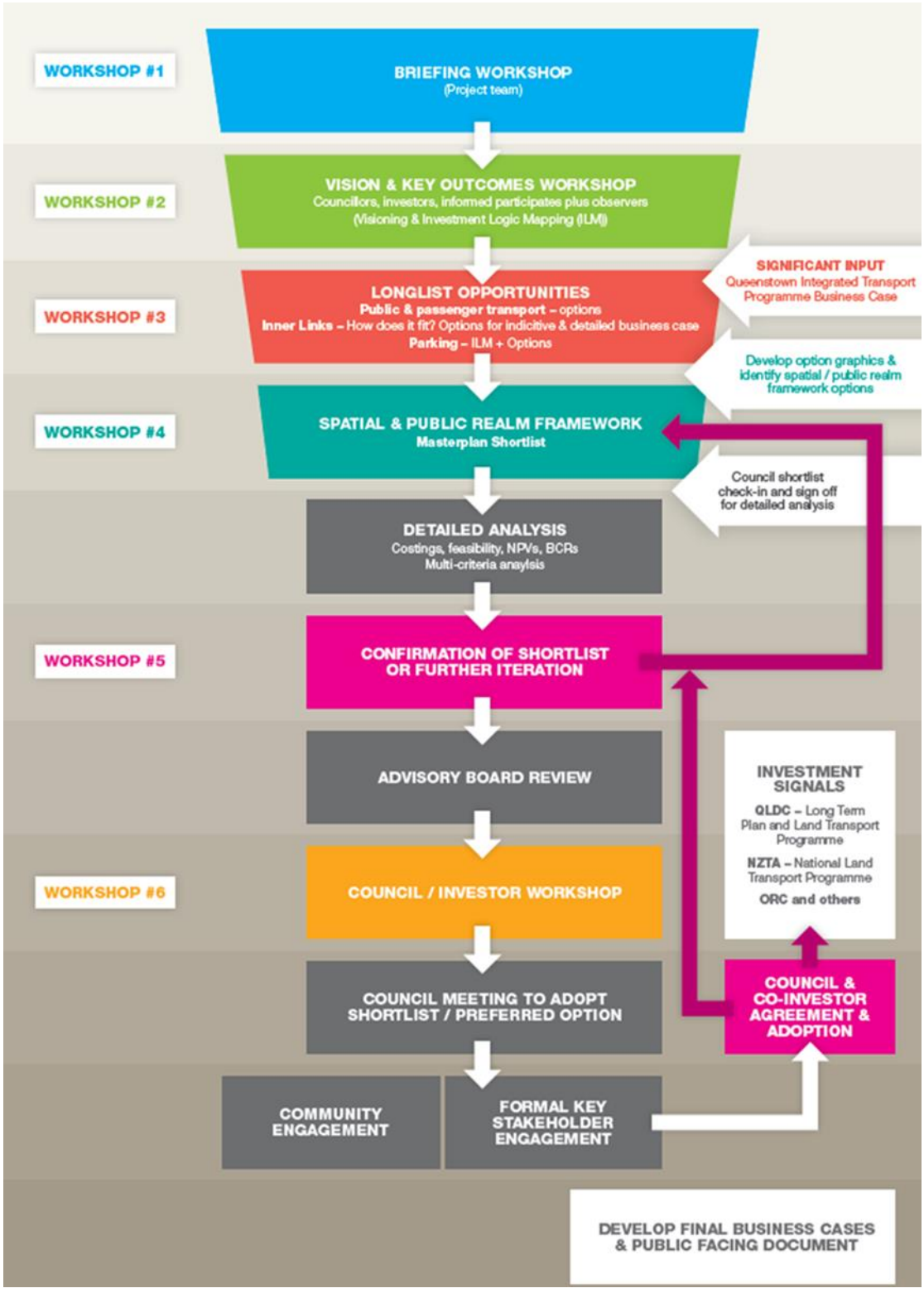


Figure 46: Queenstown Town Centre business case development and engagement process

The diagrams below demonstrate the range of interventions that were considered, including their level of ambition and the location of parking sites analysed as part of potential programme options.

1. **Supply Inventory/Demand/Occupancy/Pricing Structure**
2. **Land Use Strategy –District Plans** (Inputs into the new Transportation Section)
3. **Parking Rationalisation** (Parking type, Signage, Cost, Payment)
4. **Sensors** (CCTV, Wireless Studs, Number Plate Recognition) to provide data on Occupancy
5. **Parking Signage (Static and VMS)** to provide customers with up to date parking information (Location, Occupancy in the right locations and platform so they can make better informed decisions on where to park
6. **Smart Parking App** (Credit Card linked Payment, Type, Availability, Guidance)
7. **Smart Enforcement Number plate recognition**
8. **Residential / Green Zone Review,** including resident parking and time limits within area of influence
9. **Reducing Free Parking** (All parking within area of influence is to be controlled)
10. **Increased Parking Prices**
11. **Park & Ride outside Queenstown**
12. **Large Carpark** (Close to Arterials & Town Centre – Activating the fringe) - See location Map
13. **Multiple Location of upgraded car parks**
14. **Cordon Charge**
15. **Increase Pedestrianisation** – Remove car parking from Town Centre
16. **Land Use** (Worker Accom/Living No Parking vs families; Different demographics for different modes)

Figure 48: A list of intervention types used to create the programme.

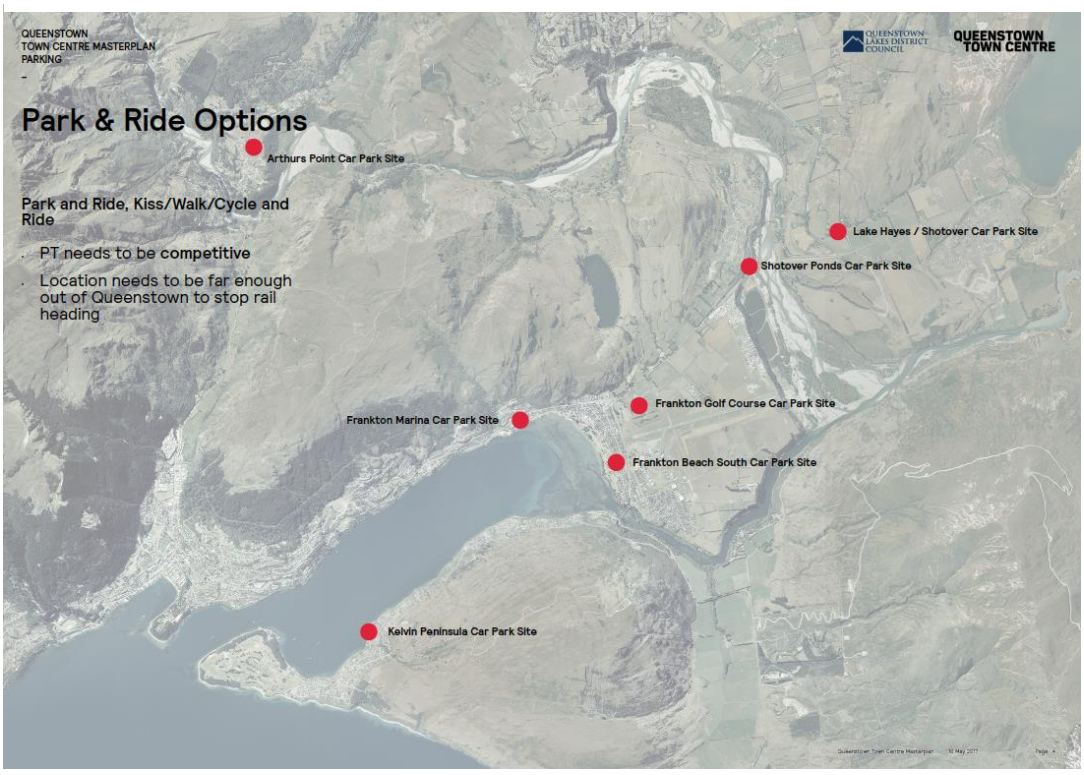
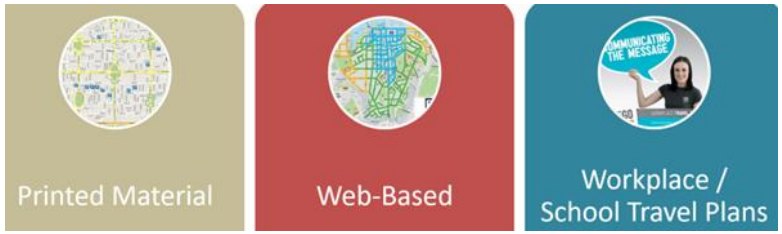


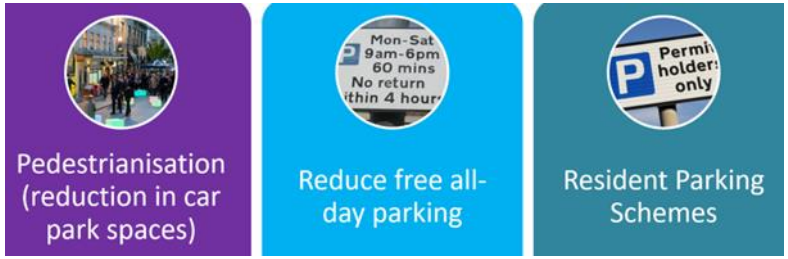
Figure 479: Park and ride sites considered.

9.1 Strategic options

Several strategic options were created to group together interventions that could be used to address the problems. These provided context for the workshop discussions around programme options. The project team could then demonstrate the scope of what was being considered and get feedback on how the options could be applied in practice. Appendix 6 provides a detailed description of each shortlisted intervention in terms of how it might work, how it would be resourced and how it could be implemented.

Table 14: Strategic options

Strategic Option	Description	Imagery used in workshop discussions
Intelligent parking systems	Intelligent transport systems, including the delivery of systems (or a single application) to provide real time information, parking information, remote booking/purchasing, parking availability and mobility that is in sequence with intelligent signage systems (to show availability and pricing).	
Parking enforcement	Parking enforcement measures, including increased personnel, parking information systems to assist enforcement and increased parking penalties.	
Marketing communications	Marketing and communications to enable better understanding of the parking and wider transport options, including tourist information, maps, website information, airport and hotel marketing.	

Strategic Option	Description	Imagery used in workshop discussions
Demand management	Demand management initiatives, including increased parking charges to increase mode shift and optimise occupancy rates, less free parking, subsidising public transport (hypothecated fund) and variable charges based on facility capacity and time-based demand.	
Parking management	Parking regulations will need to be reviewed to ensure they align with what the parking strategy is striving to achieve, and technically they specify the correct technology (sensors etc.) to allow the real-time monitoring, demand management etc. to take place. This intervention option involves investigating dedicated car parking spaces in on-street and off-street parking facilities for ride sharing. Parking surveys can give data on the demand for parking, the type of car drivers (visitors versus commuters) and the average lengths of parking, as well as the capacity and use of existing parking facilities.	
On-street car parking	On-street parking changes, reduced free all-day parking in the area of influence, and resident parking schemes. Also, reduction of on-street parking in the town centre to support a pedestrian focus.	

Strategic Option	Description	Imagery used in workshop discussions
Off-street car parking	This option includes making off-street parking changes, including a general increase in capacity through enhancement of existing parking sites at Boundary Street, Ballarat Street and Stanley Street, Warren Park and repurposing of Athol Street and Queenstown Gardens parking. The inclusion of private sites, bike parking and 350 new parking spaces at Skyline. As noted earlier, priority has been given to the sites that best meet these criterion: • The sites are linked and easily accessible from the new arterial alignment. • They support activation of underutilised land. • They are located on the town centre fringe to keep traffic outside the town centre. • They are highly accessible to foot traffic. Through applying these criteria, a shortlist of off-street parking sites were carried through into the programme development.	
Park and ride	Integrated park and ride facilities and services for commuters, visitors and campervan drivers.	
User type management	User type management actions, including commuter, shopper, events and visitor demand management, tourist operator pick and drop off areas, coach layover, public transport layover, special needs facilities and dedicated freight and delivery spaces.	

9.2 Longlist development

Using the strategic context provided by relevant plans, investment objectives, and the body of supporting evidence, a set of workshops was used to develop a longlist of programme options.

Nine programme options were developed (including the do-minimum), with over fifty intervention types captured and grouped together under themes and perceived investment/ambition levels. The number of interventions listed demonstrates the breadth of consideration undertaken by Rationale and Beca in partnership with the stakeholders. This longlist was tested more widely by project stakeholders in a two day workshop ahead of discussions with the Advisory Group and Queenstown District Council elected members.

The agreed longlist is shown below.

Table 15: longlist option descriptions

#	Programme name	Description
0	Do minimum	Utilising a productivity focus, this option includes the planned activities around demand inventory and optimisation of the CALM model alongside increased enforcement.
1	Improved Management of Existing Inventory	This programme focuses on optimised utilisation, improved information for users and redefining inventory to match user's needs.
2	Technology	This programme enhances Programme 1 by applying technology such as Real Time Information, parking user apps, mobility as a service, remote booking options and intelligent signage systems.
3	Upgrade Existing - Minor Increases	This programme focuses on redevelopment of existing sites to accommodate additional parking and enable technology.
4	Full redevelopment (buildings) existing sites - Appropriate Supply	This programme focuses on full redevelopment of the existing Council-owned parking sites, including Boundary Street and Ballarat Street, while providing appropriate supply only.
5	Supply from Programme 4 + Aesthetics and Town Centre Pedestrianisation. Provide Appropriate Supply	This programme focuses on removal of selected on-street parking and parking apparatus to improve the public realm and improve the town centre experience for all. It also includes managing vehicle numbers in the town centre using technology to inform users in real time about parking availability, their choices, and variable charges.
6	Multiple New and upgrade existing Sites - Appropriate Supply	This programme focuses on providing multiple off-street facilities, both new and upgraded existing sites. Appropriately located to provide good access to the town centre and limit vehicle movements including circulation. This programme also incorporates the technology aspects of Programme 2. Priority has been given to the sites that best meet these criterion: • The sites are linked and easily accessible from the new arterial alignment. • They support activation of underutilised land. • They are located on the town centre fringe to keep traffic outside the town centre. • They are highly accessible to foot traffic.
7	One Carpark - Appropriate Supply	This option focuses on providing One large carparking facility, appropriately located and providing appropriate supply only.

#	Programme name	Description
8	Unlimited Supply	This option focuses on continuing to provide supply in an unconstrained way.

The diagram below shows how the programmes were developed through an MCA template.

TEMPLATE 1

Queenstown Lakes District Council
Town Centre Parking Programme

https://www.nzta.govt.nz/planning-and-investment/planning/planning-process/business-case-approach/

2

Investor: QLDC
Facilitator: Edward Guy
Initial Workshop: 28/03/2017
Version No.: 4.0
Last Modified by: Edward Guy 15/05/2017

			Programme Options								
Strategic Response			Programme 0	Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Programme 7	Programme 8
Strategic Alternatives	Strategic Options	Intervention options	Do Minimum	Improved Management of Existing Inventory	Technology	Upgrade Existing - Minor Increases	Full redevelopment (buildings) existing sites - Appropriate Supply	Supply from Programme 4 + Aesthetics and Town Centre Pedestrianisation. Provide Appropriate Supply	Multiple New and upgrade existing Sites - Appropriate Supply	One Carpark - Appropriate Supply	Unlimited Supply
				Optimise utilisation, improved information for users, redefine inventory to match users needs.	Taking a technological approach to enhance Programme 1.	Redevelop existing sites to accommodate additional parking and enable technology.	Full redevelopment of the existing Council owned parking sites. Includes Boundary St, Ballarat St. Provide approriate supply only.	Removal of selected on street parking and parking aparatus to improve the natural environment and improve the town centre experience for all. Manage vehicle numbers in the town cenetre using technology to inform users real time about parking avaiability, their choices, and variable charges.	Multiple off street facilities, both new and upgraded existing sites. Appropriately located to provide good access to the town centre, limit vehicle movements including circulation.	One large carparking facility, appropriately located. Provide appropriate supply only.	Continue to provide supply unconstrained.
			Assumptions/Depende	Assumptions/Dependencies:							
					Parking Demand vs Supply is understood						
					Supporting PT and other Modes is given						
					Pricing to manage demand understood						
Using Technology, Provide Information and Enforcement	Intelligent Transport Systems	Real Time Information		√	√	√	√	√	√	√	√
		Parking Information Systems - Apps			√	√	√	√	√	√	√
		Remote Booking/Purchasing			√	√	√	√	√	√	√
		Parking information and signage systems		√	√	√	√	√	√	√	√
		Mobility as a service.			√	√	√	√	√	√	√
	Parking Enforcement	Increased number of enforcement personnel	√	√	√	√	√	√	√	√	√
		Parking Info. System assisting enforcement			√	√	√	√	√	√	√
		Increase Parking Penalties -		√	√	√	√	√	√	√	√
	Marketing and Communications	Tourist Information		√	√	√	√	√	√	√	√
		Free Maps		√	√	√	√	√	√	√	√
		Website		√	√	√	√	√	√	√	√
		Airport/Hotel Marketing		√	√	√	√	√	√	√	√
		Workplace and School travel plans									
Parking Charges	Demand Management	Increasing Parking Charges - Encourage Mode Shift	√	√	√	√	√	√	√	√	
		Increasing Parking Charges - Optimise Occupancy Rate		√	√	√	√	√	√	√	
		Less Free Parking		√	√	√	√	√	√	√	
		Subsidising Public Transport (Hypothecated Fund)	√	√	√	√	√	√	√	√	√
		Variable Charges				√	√	√	√	√	
Parking Supply	Parking Management	Maximum/minimum parking standards (District Plan)	√	√	√	√	√	√	√	√	√
		Ride share parking allocations	√								
		Demand vs Inventory Review - CALM (optimisation by type)	√	√	√	√	√	√	√	√	√
	On Street	Reduce on street parking in Historic Core - Pedestrianisation						√	√	√	√
		Reduce Free All Day Parking - Area of Influence		√	√	√	√	√	√	√	√
		Resident Parking Schemes					√	√	√	√	√
	Off Street	Increase off Street carparking					√	√	√	√	√
		Ballarat St - upgrade (....)				√					
		Ballarat/Stanley St - Building (*no of parks*)					√	√	√		
		Boundary Street - upgrade (.....)					√	√			
		Boundary Street - Building (*no of parks*)					√	√	√		
		Skyline (350 parks)	√	√	√	√	√	√	√	√	√
		Rec Ground, or other appropriate site (*no of parks*)							√		√
		One New Carpark - Rec Ground/Stanley St Site (*no of parks*)								√	√
		Gardens Parking - Change Arrangements.					√	√	√	√	√
		Athol Street - Carpark redevelopment for higher valued purpose.					√	√	√	√	√
		Warren Park (construction disruption overflow - *no of parks*)							√		√
		Private Sites							√	√	√
		PC50							√	√	√
		Bike Parking						√	√	√	√
	Integrated Park and Ride	Commuter		√	√	√	√	√	√	√	
		Visitor		√	√	√	√	√	√	√	
		Campervan						√	√	√	
	User Type Management	Commuter Demand Management				√	√	√	√	√	
		Visitor Demand Management				√	√	√	√	√	
		Shopper/Transactional/Entertainment		√	√	√	√	√	√	√	√
		Tourist Operator Parking - pick up drop off						√	√	√	√
		Operational - loading zones									
		Town Center Campervan Parking	√	√	√	√	√				
		Coach layover	√	√	√	√	√	√	√	√	√
		Public Transport Layover	√	√	√	√	√	√	√	√	√
		Special - PT, Disabled	√	√	√	√	√	√	√	√	√
		Freight and Deliveries - Dedicated		√	√	√	√	√	√	√	√
Improved Amenity/Aesthetics	Town Centre Beautification	Pedestrianisation						√	√	√	√
		Reduced Infrastructure			√	√	√	√	√	√	√
		Signage Reduction			√	√	√	√	√	√	√

Figure 49: Parking Programme Longlist Components

9.3 Assessment of options

In keeping with the NZTA business case option development approach, a Multi-Criteria Analysis (MCA) was then created to capture and evaluate the options so that a shortlist of three programmes could be taken through to the detailed analysis stage.

The MCA provided a mechanism to compare and rate each option against the following items:

- Performance against the investment objectives.
- Performance against the business needs.
- Performance against agreed programme risks.
- Cost and delivery time for each option (cost details were not confirmed at this stage).

The evaluation results are shown below. From this process, the project team and the stakeholders identified a shortlist of options, along with a preferred option for testing with the stakeholder groups. The shortlisted options were numbers 5, 6 and 7.

TEMPLATE 2 3

Queenstown Lakes District Council
Town Centre Parking Programme

Investor: QLDC
Facilitator: Edward Guy
Initial Workshop: 28/03/2017
Version No.: 4.0
Last Modified by: Edward Guy 15/05/2017

Programme options

			1	2	3	4	5	6	7	8	9
			Programme 0	**Programme 1**	**Programme 2**	**Programme 3**	**Programme 4**	**Programme 5**	**Programme 6**	**Programme 7**	**Programme 8**
Outcome: Network Performance & Capability			**Do Minimum**	**Improved Management of Existing Inventory**	**Technology**	**Upgrade Existing - Minor Increases**	**Full redevelopment (buildings) existing sites - Appropriate Supply**	**Supply from Programme 4 + Aesthetics and Town Centre Pedestrianisation. Provide Appropriate Supply**	**Multiple New and upgrade existing Sites - Appropriate Supply**	**One Carpark - Appropriate Supply**	**Unlimited Supply**
				Optimise utilisation, improved information for users, redefine inventory to match users needs.	Taking a technological approach to enhance Programme 1.	Redevelop existing sites to accommodate additional parking and enable technology.	Full redevelopment of the existing Council owned parking sites. Includes Boundary St, Ballarat St. Provide approriate supply only.	Removal of selected on street parking and parking aparatus to improve the natural environment and improve the town centre experience for all. Manage vehicle numbers in the town cenetre using technology to inform users real time about parking avaiability, their choices, and variable charges.	Multiple off street facilities, both new and upgraded existing sites. Appropriately located to provide good access to the town centre, limit vehicle movements including circulation.	One large carparking facility, appropriately located. Provide appropriate supply only.	Continue to provide supply unconstrained.
		Relative Importance of objective	**9%**	**35%**	**52%**	**60%**	**69%**	**84%**	**100%**	**82%**	**45%**
Investment Objective 1	Reduced Congestion KPI 1: Circulation KPI 2: Arterials Travel Time Variability	**35%**	10%	40%	60%	65%	70%	85%	100%	70%	0%
Investment Objective 2	Improved Efficiency and Optimal Use KPI 1: Revenue KPI 2: Compliance with parking rules KPI 3: Hypothecated PT Fund KPI 4: Occupancy	**25%**	20%	50%	60%	70%	80%	90%	100%	100%	100%
Investment Objective 3	Improved Liveability and Visitor Experience KPI 1: Resident Satisfaction KPI 2: Visitor Satisfaction KPI 3: User Experience	**40%**	0%	20%	40%	50%	60%	80%	100%	80%	50%
Cost											
Early Works Investigation			$ 50 k	$ 50 k	$ 50 k	$ 50 k	$ 100 k	$ 100 k	$ 100 k	$ 100 k	$ 100 k
Parking Buildings			$ 0 m	$ 0 m	$ 0 m	$ 0 m	$ 43 m	$ 43 m	$ 43 m	$ 47 m	$ 90 m
Technology and Interventions (Phase 1)			$ 0.1 m	$ 2.8 m	$ 5.4 m	$ 5.4 m	$ 5.4 m	$ 5.5 m	$ 5.5 m	$ 5.5 m	$ 5.5 m
Technology and Interventions (Phase 2)			$ 0.1 m	$ 3.5 m	$ 7.8 m	$ 8 m	$ 8 m	$ 8.3 m	$ 8.3 m	$ 8.3 m	$ 8.1 m
Total Capital Expenditure			**$ 0.2 m**	**$ 7 m**	**$ 14 m**	**$ 14 m**	**$ 57 m**	**$ 57 m**	**$ 57 m**	**$ 61 m**	**$ 104 m**
Operational costs (Annual)			**$ 0.1 m**	**$ 0.5 m**	**$ 2.4 m**	**$ 2.4 m**	**$ 2.4 m**	**$ 2.4 m**	**$ 2.4 m**	**$ 2.4 m**	**$ 2.4 m**
Income/Revenue											
(Range)											
Time											
(Range)											
Business Needs/Considerations											
Integrated transport - connectivity with other transport			L	L	M	M	M	H	H	H	L
Promote travel demand management measures			L	M	H	H	H	H	H	H	L
Accessibility for commercial activity			L	L	M	M	M	H	H	M	L
Promotes accessibility for each user type			L	M	M	M	M	H	H	H	L
Enhanced environment			L	L	L	M	M	H	H	M	Negative
Quality and security			L	L	L	L	M	H	H	H	L
Contributing to masterplan vision			L	L	L	L	M	H	H	M	L
Meeting the needs of growth			L	L	M	M	H	H	H	H	H
Parking Specific Business Needs											
Risks											
Technical			L	L	M	M	H	H	H	H	H
Operational			L	L	L	L	L	L	L	L	L
Financial			L	L	L	M	M	M	M	H	H
Stakeholder/Public			H	H	H	H	H	H	H	H	H
Environmental			L	L	L	L	M	M	M	H	H
Safety			L	L	L	L	L	L	L	L	L
Economic			H	H	H	H	M	L	L	M	H
Accessibility & Social Inclusion			M	M	M	M	L	L	L	L	L
Impact on Business Community			H	H	M	M	L	L	L	L	H
Cost of being Disrupted			L	L	L	L	M	M	M	H	H
other											
Dis-benefits											
Dis-benefit 1											
Dis-benefit 2											
4											
Indicative Activity Profile:											
Ranking											
1-3											
								2	1	3	

Overall Assessment:

Programme 6, multiple carpark sites is the preferred option. The short list includes upgrading existing sites and developing one large carparking facility. Programme 6 (multiple carparking sites) has bee viewed as a superior option as the carparks can be located on the arterials. This options should reduce unnecessary travel and further reduce congestion compared to single large carpark. One large carpark is deemed to have additional risk and does not deliver the same quantum of business benefits. Disruption needs to be considered also. The greater the ability for carparking to be repurposed the less risk is carried from transportation disruption.

Recommendation:

At this stage proceed to detailed analysis of programmes 5, 6 and 7.

Figure 50: Parking programme Multi Criteria Analysis

9.3.1 Town centre off-street parking building location selection

Many off-street parking building locations have been considered throughout the option development process. This decision was informed by the optioneering above which demonstrated a need for multiple car park building sites that could attract traffic to the fringes of the town centre and activate under-utilised land. For this reason, priority has been given to the sites that best meet these criterion:

- The sites are linked and easily accessible from the new arterial alignment.
- They support activation of underutilised land.
- They are located on the town centre fringe to keep traffic outside the town centre.
- They are highly accessible to foot traffic.

The image below demonstrates how 11 sites were considered through an MCA process that used the criteria above as business needs and included a consideration of visual impact within the potential dis-benefits. The 11 sites considered for the town centre were:

- Queenstown Gardens
- Hotops Rise
- Ballarat Street (on the current car park site)
- Athol Street
- At the Recreation Ground (on the Camp Street side)
- Within the Lakeview area.
- At the base of the Skyline gondola on Brecon Street.
- At the Queenstown Primary School site.
- On the current Boundary Street car park site.
- Under the playing field at the Recreation Ground.
- At the Queenstown High School site (warren Park).

As shown through the rankings below, Ballarat Street ranked the highest with Boundary Street, Lakeview and the Recreation Ground (Camp Street side) options following. The under-field option at the recreation ground rated well initially but was seen to create high risks as well as a significantly higher cost. With four preferred sites agreed, the top-rated sites could be progressed into consideration as part of the shortlisted programme options.

			Programme options									
Outcome: Network Performance & Capability			Option 1 Queenstown Gardens	Option 2 Hotops Rise	Option 3 Ballarat Street	Option 4 Athol Street	Option 5 Recreation Ground (Camp Street side)	Option 6 Lakeview	Option 7 Skyline Gondola	Option 8 Queenstown Primary site	Option 9 Boundary Street	Option 10 Recreation Ground (under the field)	Option 11 Queenstown High School Site/ Warren Park
		Relative Importance of objective	26%	35%	78%	28%	43%	34%	20%	20%	52%	43%	39%
Investment Objective 1	Less congestion created by carparking activity. 35% KPI 1: Circulation KPI 2: Arterial Travel Time Reliability	35%	40%	40%	80%	20%	40%	40%	20%	20%	60%	50%	40%
Investment Objective 2	Improved efficiency and optimal use of existing carparks. 25% KPI 1: Revenue KPI 2: Compliance with parking rules KPI3: Hypothecated PT Fund	25%	30%	20%	80%	50%	50%	30%	20%	20%	60%	20%	50%
Investment Objective 3	Improved Liveability & Visitor Experience. 40% KPI 1: Resident Satisfaction KPI 2: Visitor Satisfaction KPI 2: User Satisfaction	40%	10%	40%	75%	20%	40%	30%	20%	20%	40%	50%	30%
Costs													
No. of carpark spaces					350			200			242	400	
Total Project Cost					$19.9m - $25.1m			$10.4m - $12.9m			$15.4m - $17.8m	$36.0m - $47.0m	
Cost per carpark space					$57k - $72k			$52k - $65k			$64k - $74k	$90k - $118k	
Business Needs/Considerations													
Easy access from the new arterials			L	L	H	L	M	M	M	M	H	M	M
Activate underutilised land			L	M	H	L	L	M	M	M	M	M	M
Located on the city fringe			M	L	H	L	H	M	M	M	M	H	L
Highly accessible to foot traffic			H	H	H	H	H	M	L	L	M	H	L
Risks													
Technical			H	H	M	M	M	L	M	M	M	H	M
Operational			M	M	M	H	H	M	M	M	M	M	M
Financial			M	H	M	M	M	M	M	M	M	H	M
Stakeholder/Public			H	H	L	H	H	L	M	H	H	H	H
Environmental			H	H	M	M	M	L	M	M	M	H	L
Safety			M	M	M	M	M	M	M	M	M	H	M
Economic			M	M	M	M	M	M	L	M	M	H	M
Accessibility & Social Inclusion			L	H	L	M	M	M	M	M	M	M	M
Cost of being Disrupted			M	H	L	M	L	M	M	L	M	H	L
Dis-benefits													
Disrupting town centre operations (public & private)			H	M	M	H	M	L	L	L	L	H	L
Visual Impact			H	H	M	L	H	L	L	M	M	L	M
Ranking													
1-3					1		4	3			2	5	
Overall Assessment:													
Ballarat Street is the preferred site with Boundary Street, Lakeview and the Recreation Ground (Camp Street side) option following closely. The under field option at the recreation ground rated well but was seen to draw a number of high risks as well as showing a significant cost.													
Recommendation:													
It is recommended that the top 4 sites be considered as part of the programme options as new buildings.													

Figure 51: Town centre off-street parking building location option evaluation

9.4 The Do Minimum Option

The do minimum option was considered as the least level of investment to achieve a minimum level of service. Utilising a productivity focus, this option includes use of a demand inventory and the current CALM model to optimise existing arrangements. As shown in the Parking Programme MCA, the do minimum option included:

- increasing parking charges – to encourage mode shift and optimise occupancy rates
- increasing the number of enforcement personnel
- subsidising public transport via a hypothecated fund
- maximum/minimum parking standards (district plan)
- ride share parking allocations
- demand vs inventory review through the CALM model (optimisation by type)
- a dedicated town centre campervan parking
- coach layover
- public transport layover
- special needs parking
- freight and deliveries – dedicated space allocation.

Using the MCA to analyse the do minimum option has demonstrated that this approach cannot deliver against the investment objectives. This option also rated at an unacceptable level against the business needs listed in the MCA, while also presenting a reasonably high level of risk.

Objective Number	KPIs as per ILM	Relative Importance of objective	Rating of the do minimum option against the objective
Investment Objective 1	Reduced Congestion KPI 1: Circulation KPI 2: Arterials Travel Time Variability	35%	10%
Investment Objective 2	Improved Efficiency and Optimal Use KPI 1: Revenue KPI 2: Compliance with parking rules KPI 3: Hypothecated PT Fund KPI 4: Occupancy	25%	20%
Investment Objective 3	Improved Liveability and Visitor experience KPI 1: Resident Satisfaction KPI 2: Visitor Satisfaction KPI 3: User Experience	40%	0%

9.4.1 Rating the do minimum option against business needs

Business needs	Rating (H, M, L)
Integrated transport - connectivity with other transport options	L
Promote travel demand management measures	L
Accessibility for commercial activity	L
Promotes accessibility for each user type	L
Enhanced environment	L
Quality and security	L
Contributing to masterplan vision	L
Meeting the needs of growth	L

9.5 Shortlisted options

The project team used an MCA evaluation process to refine the programme options from a longlist of nine programmes to a shortlist of three. This allowed for detailed analysis of the three options to, in turn, provide a preferred programme.

The shortlisted options were programmes 5, 6, and 7, plus the do minimum option.

Programmes 5, 6 and 7 all included a multi-faceted approach to solving the parking problems with technology, marketing, increased enforcement, public realm improvements and user type management being common to each.

The main point of difference between the programmes is their approach to parking facility supply and the level of emphasis placed on the repurposing of facilities versus constructing new, larger facilities. The shortlisted options also closely considered the optimal points for parking supply to meet the investment objectives, based on their ability to reduce parking-related congestion, provide more efficient parking supply and contribute to a better experience in the town centre.

Appendix 6 provides a detailed description of each shortlisted intervention in terms of how it might work, how it would be resourced and how it could be implemented.

#	Title	Description
5	Supply from Programme 4 plus aesthetics and town centre pedestrianisation. Provide appropriate supply.	This programme focuses on removal of selected on-street parking and parking apparatus to improve the public realm and improve the town centre experience for all. It also includes managing vehicle numbers in the town centre using technology to inform users in real time about parking availability, their choices and variable charges.
6	Multiple new and upgrade existing sites - appropriate supply. ***This is the preferred option.***	This programme builds on the technology, enforcement, public realm and communications interventions from Programme 5 and adds a focus on providing multiple off-street facilities, including both new and upgraded existing sites. Appropriately located to provide improved access to the town centre, limit vehicle movements including circulation.
7	One carpark - appropriate supply	This programme builds on the technology, enforcement, public realm and communications themes and adds a focus on providing one large carparking facility, appropriately located and providing appropriate supply only.

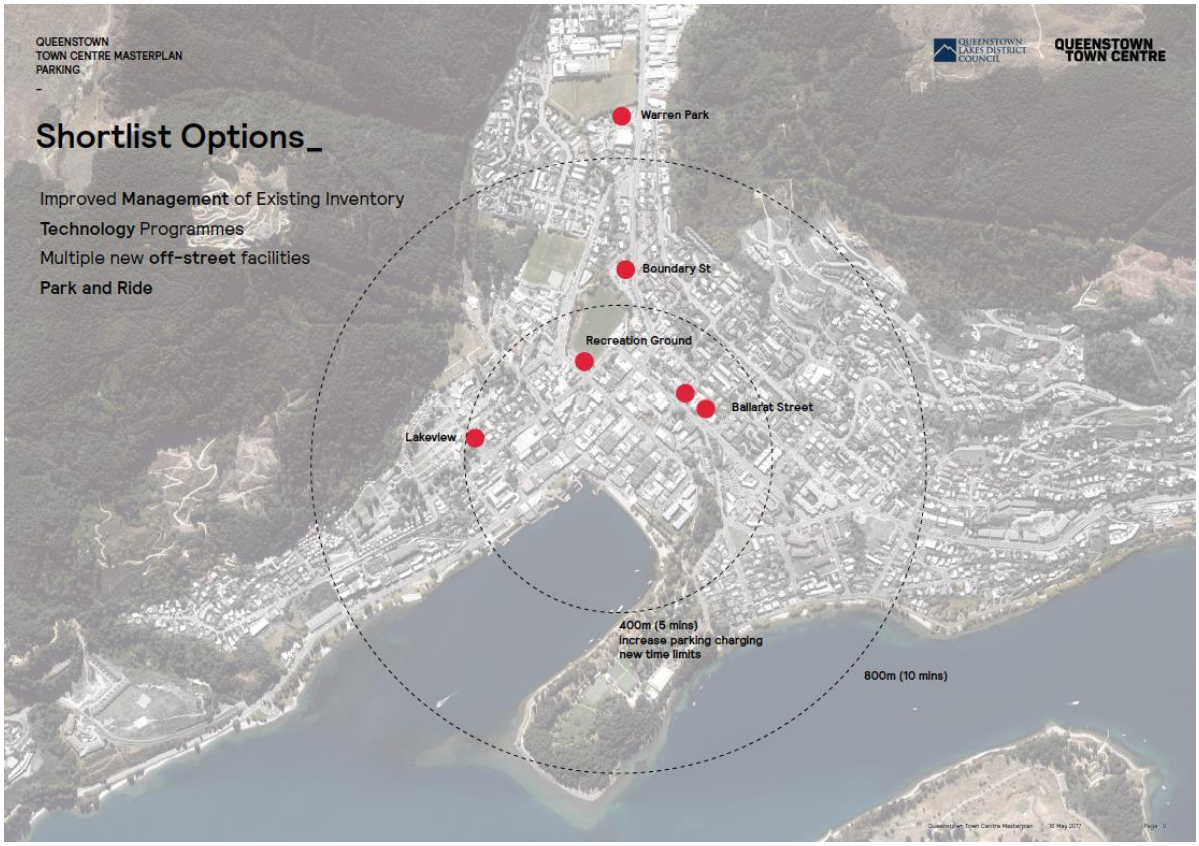


Figure 52: Parking programme shortlist parking facility options and high-level description

9.5.1 Rating of shortlisted programme options against investment objectives, business needs and risk types

The MCA was used to evaluate each option against investment objectives, business needs and common risk types (see tables below). Through this analysis, Programme 6 achieved the highest ratings, followed by Programme 5 and then Programme 7.

Programme 7 scored lower due to:

- its reduced ability to reduce congestion and thus contribute to improved experiences around the town centre
- its reduced ability to deliver an improved environment and contribute to the masterplan vision
- reduced accessibility for commercial activity
- it's higher risk profile.

Programme 6 is currently preferred over Programme 5 due to:

- its perceived higher ability to reduce congestion and thus contribute to improved experiences around the town centre
- its perceived higher ability to deliver an improved environment and contribute to the masterplan vision
- strong performance against business needs and a balanced risk profile (noting that in these areas it achieved the same rating as Programme 5).

The percentages below show the edge that Programme 6 has. It demonstrates that combining a mix of technology, behavioural interventions and appropriate supply through use of multiple, strategically located sites provides solid capability to deliver the desired benefits.

Objective	KPIs	Programme 5	Programme 6	Programme 7
Reduced Congestion	KPI 1: Circulation KPI 2: Arterials Travel Time Variability	85%	100%	70%
Improved Efficiency and Optimal Use	KPI 1: Revenue KPI 2: Compliance with parking rules KPI 3: Hypothecated PT Fund KPI 4: Occupancy	90%	100%	100%
Improved Liveability and Visitor Experience	KPI 1: Resident Satisfaction KPI 2: Visitor Satisfaction KPI 3: User Experience	80%	100%	80%
Overall ability to deliver against the objectives		84%	100%	82%

9.5.2 Rating of shortlisted options against business needs

Business needs	Option 5	Option 6	Option 7
Integrated transport - connectivity with other transport options	H	H	H
Promote travel demand management measures	H	H	H
Accessibility for commercial activity	H	H	M
Promotes accessibility for each user type	H	H	H
Enhanced environment	H	H	M
Quality and security	H	H	H
Contributing to masterplan vision	H	H	M
Meeting the needs of growth	H	H	H

Table 16: Risk rating for shortlisted options

Risk type	Option 5	Option 6	Option 7
Technical	H	H	H
Operational	L	L	L
Financial	M	M	H
Stakeholder/public	H	H	H
Environmental	M	M	H
Safety	L	L	L
Economic	L	L	M
Accessibility & social inclusion	L	L	L
Impact on business community	L	L	L
Cost of being disrupted	M	M	H

9.5.3 Analysis of shortlisted strategic interventions

As shown in Appendix 6, all the interventions included in the shortlisted programme options have been considered from a scoping and implementation perspective, to allow the development of cost estimates and to further inform the practicality and risk level of each one. This detailed analysis also provides a firmer sense of which programme is preferred and how the programme needs to be developed and implemented over the desired period.

10 Preferred Programme

10.1 Programme overview

The preferred programme (Programme 6), was found to be the best balance of activities that has the potential to deliver an efficient and effective solution to the parking problems. In summary, this option utilises multiple carpark sites on the new proposed arterials, providing the capability to reduce unnecessary travel and to further reduce congestion compared to single large carpark. This option also includes a logical set of complementary activities around intelligent systems, enforcement changes, customer communications, user management, car park repurposing, public realm improvements and integration with park and ride services/facilities.

10.1.1 Flexibility and scalability

As noted in the executive summary, this programme also scalable and flexible in its delivery timing to allow for the impacts of disruption. This is a critical requirement for parking programme that forms part of a transport infrastructure network that may be impacted by disruption.

QLDC is mindful of the effects that developments in technology may have on parking behaviours and, with this in mind, this programme can adapt both through delivery timing and the proposed design of new parking buildings (which are proposed to be designed to allow changed use in the future). Primary considerations in this area are the uptake of autonomous vehicles and the use of transport/movement as a service. Other changes are expected and hence it is important to nominate a programme that can adapt to deliver ongoing value for money.

10.1.2 Integration

This preferred programme provides significant value to, and has a clear dependency on, the proposed changes outlined in the wider Town Centre Masterplan Programme Business Case (including the spatial and public realm frameworks), the town centre arterials changes (to enable access to the proposed car park locations) and the town centre public and passenger transport changes including reducing car traffic around the critical public transport facilities proposed on Stanley Street.

10.2 Programme scope

Table 17: Programme scope breakdown

Activity levels	What's included
Core activities	The preferred programme is a logical set of complementary activities aimed at producing the best possible outcome against the programme objectives. Key aspects of the programme include: **Intelligent transport systems** including the delivery of systems (or a single application) to provide real time information, parking information, remote booking/purchasing, parking availability and mobility that is in sequence with intelligent signage systems (to show availability and pricing). **Parking enforcement measures** including increased personnel, parking information systems to assist enforcement and potentially increased parking penalties (the mechanism for this needs to be investigated further in the detailed business case). **Marketing and communications** to enable better understanding of the parking and wider transport options, including tourist information, maps, website information, airport and hotel marketing. **Demand management initiatives** including increased parking charges to increase mode shift and optimise occupancy rates, less free parking, subsidising public transport (hypothecated fund) and variable charges based on facility, location and occupancy levels. **On-street parking changes** including reduction of on-street parking in the town centre, supporting a pedestrian/walking focus, reduced free all-day parking in the area of influence, and resident parking schemes. **Off-street parking changes –** to provide for future growth and offset the reduction in on-street parking due to other masterplan projects, upgrades and new developments are proposed around the town centre fringes. These changes will aim to draw traffic directly from the arterials and

Activity levels	What's included
	encourage drivers to park in these areas and walk into the town centre, reducing the amount of cars and congestion in the town centre streets. These changes include a general increase in off-street capacity through enhancement of existing parking sites at Boundary Street, Ballarat Street and Stanley Street, Warren Park and repurposing Queenstown Gardens parking, plus the inclusion of private sites, bike parking and the 350 new parks at Skyline. **Integrated park and ride** facilities and services for commuters, visitors and campervan drivers. **User type management actions** including commuter, shopper, events and visitor demand management, tourist operator pick up and drop off areas, coach layover, public transport layover, special needs facilities, and dedicated freight and delivery spaces. **Additional bike parking** is proposed in strategic locations around Queenstown. This will comprise a combination of covered and uncovered parks with necessary crime prevention features, intended to encourage modal shift. As the numbers of E-Bikes (electric bikes) grow, we expect this would reinforce the demand for formal bike parking. QLDC is aiming to provide a level of preference for activate travel as compared to private vehicle use. While it will be developed further in the detailed business case, the general approach to prioritisation puts walking at the top, cycling second, public and passenger transport next and private car use next. This will drive consideration of more innovative approaches in the town centre, such as the opportunity to re-purpose existing underground car parking space for use as an end of trip facility for cyclists, walkers and runners.
Optional and desirable requirements	Requirements that would add value to the preferred programme include: • The implementation of increased Park and Ride. • Increased parking revenue. • Achievement of optimised occupancy at 85% of capacity. • Variable charging capability to direct demand in real time (around busy times and facilities to prevent congestion build up in the area of influence. • Implementation of a locals pricing scheme. • Implementation of workplace or school travel plans to better inform traffic flows and demand.
Excluded from scope	• Development of a single large parking site. • Development of unlimited supply (rather, managed supply based on an optimum level). • Town centre campervan parking, because the park and ride sites should be their preferred option.

10.3 Preferred programme details

A Queenstown town centre parking options development report was produced by Beca to profile the programme development (Appendix 10). Content from this report is shown in this section to describe the programme interventions in more detail. The intervention options are based on existing and proven technologies. As new cost-effective technologies are introduced to the market in the future, there may be opportunities to assess the inclusion of these. The diagram below shows how all the proposed interventions came together as a programme.

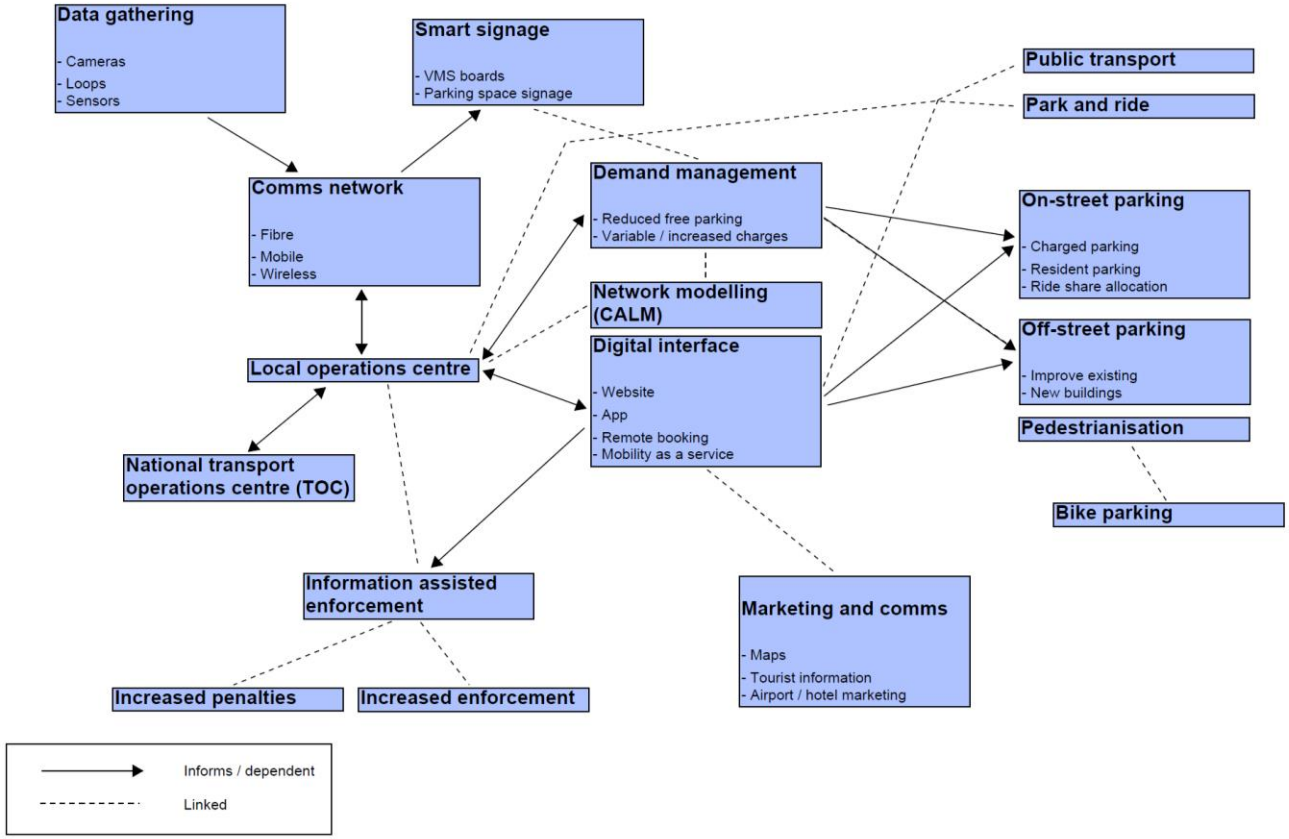


Figure 53: Proposed parking interventions structure

10.3.1 Operations Centre

An operations centre is proposed to provide day-to-day operation of the ITS parking interventions. The centre's functions will include:

- real-time monitoring
- parking management, including:
    - adjusting parking charges
    - updating statuses on VMS signs
    - providing information for websites and applications
    - management of updates, upgrades, maintenance and troubleshooting.

It is proposed that the operations centre is aligned with or part of the proposed Transport Operation Centre (TOC) and the management of public transport operations.

10.3.2 Communications Network

A communications network is required to link all ITS interventions. Beca have assumed that this network will comprise a combination of existing communications technology (including fibre, Wi-Fi, VDSL and 3G) and that implementation will be a combination of upgrades to existing networks and new infrastructure.

Communications technologies are constantly developing and future communications technologies can be considered as they become available.

10.3.3 On-Street Data Gathering

Real time information data collection enables ITS and QLDC officers to manage parking operations to provide the best outcome for prioritised types of travel (e.g. short-term parking for transactions, all day parking for workers, etcetera)

Typically, on-street data gathering is based on occupancy information combined with hardware/software analyses. For example, comparing real time information to historic data makes it possible to identify where and when intervention may be required. We expect that data will then be analysed with the aid of the operations centre, and interpretations used for presentation to users through variable message signs (VMS), apps and websites.

With the introduction of parking charges for identified on-street car parking areas, the typical approach is to set an hourly rate that is acceptable to the community. Once it has been in operation for 6 months, a survey of car park space occupancy is carried out. If the available car parking spaces are below 15%, then the hourly parking rate is increased. This often causes changes in parking space utilisation in adjacent zones, so this monitoring and price adjustment is an ongoing (6 monthly) process. The more information on occupancy that can be automatically collected, the more responsive QLDC can be to set appropriate hourly rate charges.

Current technology can capture data using CCTV cameras and in-road inductive loops to register vehicle movements or record occupancy of a specific zone; or using individual parking space sensors (studs or radar detectors) to record occupancy of individual spaces.

Future technology is likely to include information produced by vehicles or occupants themselves, and potentially from data aggregation vendors such as Google. Progress with these technologies need to be monitored, as it may be only a few years before they are available.

10.3.4 Variable Message Signs (VMS)

VMS signs are used to instruct or aid user decisions by providing information on particular alerts, travel time or occupancy.

It is proposed that a combination of sign types is implemented:

- Large matrix / free text: to provide advanced information on major approaches to Queenstown, including parking price / availability and park and ride information.
- Medium static signs incorporating dynamic VMS panels: to inform users at decision points, with information on parking availability at nearby facilities.
- Smaller signs: outside parking facilities to inform users of parking availability.

The advantage of VMS signs is that the information is available to all road users regardless of the technology being used in the vehicle. Future potential is for the information to also be provided to in-vehicle navigation systems.

10.3.5 Existing off-street car parks – ITS interventions

It is proposed that more effective use of existing off-street car parks (e.g. at the recreation ground) is made through ITS interventions. Data can be used to inform pricing structures and information / booking systems. Proposed interventions include:

- re-design of layouts, to maximise the number of spaces.
- parking occupancy detection (either an estimate of overall car park use or individual space)
- smart signage.

In the near future, the potential is for ITS information from off-street car parks to directly feed into navigation apps and in-car navigation systems.

10.3.6 Parking buildings – ITS interventions

It is proposed that ITS technology is incorporated into the proposed car parking buildings at Boundary Street, Ballarat Street and Lakeview. Data will in turn be used to inform pricing structures and information / booking systems, and potentially in the future - directly to navigation apps and in-vehicle navigation. Technology may include:

- smart entry gates
- parking occupancy detection (overall car park capacity or individual space)
- smart signage
- a direct feed into navigation apps and in-car navigation systems.

10.3.7 New Controlled On-Street Parking Spaces

Conversion of free, uncontrolled parking spaces to controlled, paid parking is intended to improve the overall management of parking, reducing demand, searching patterns and pressure on residential areas.

It is expected that some of these on-street parking spaces would be reserved for local residents. The number of parks and locations would need to be determined in consultation, and potentially rolled out progressively once a resident parking zone scheme is created.

The justification for more control of on-street parking is to increase the mode share of public transport (including the use of planned park and ride areas). The transport modelling completed suggests the change to paid parking will both increase public transport trips but also removing some trips altogether.

Existing free on-street car parks will be upgraded to operate under electronic parking systems. This will include:

- installation of parking sensors
- installation of electronic payment machines
- changes to line markings.

The diagram below demonstrates the extent of changed on-street parking and lists the technology interventions proposed.

There are many global “parking app” vendors and over time their products will continue to mature. An advantage of parking apps is to offer additional options and payment methods to on-street parkers. Our intervention options are based on proven technologies; however, parking apps may become a relevant future option as that technology matures. The advice provided by the Masterplan Advisory Group members is that apps have been very successful in this area in Auckland and the level of enforcement required has been greatly reduced due to how easy it is for customers to manage their bookings remotely.

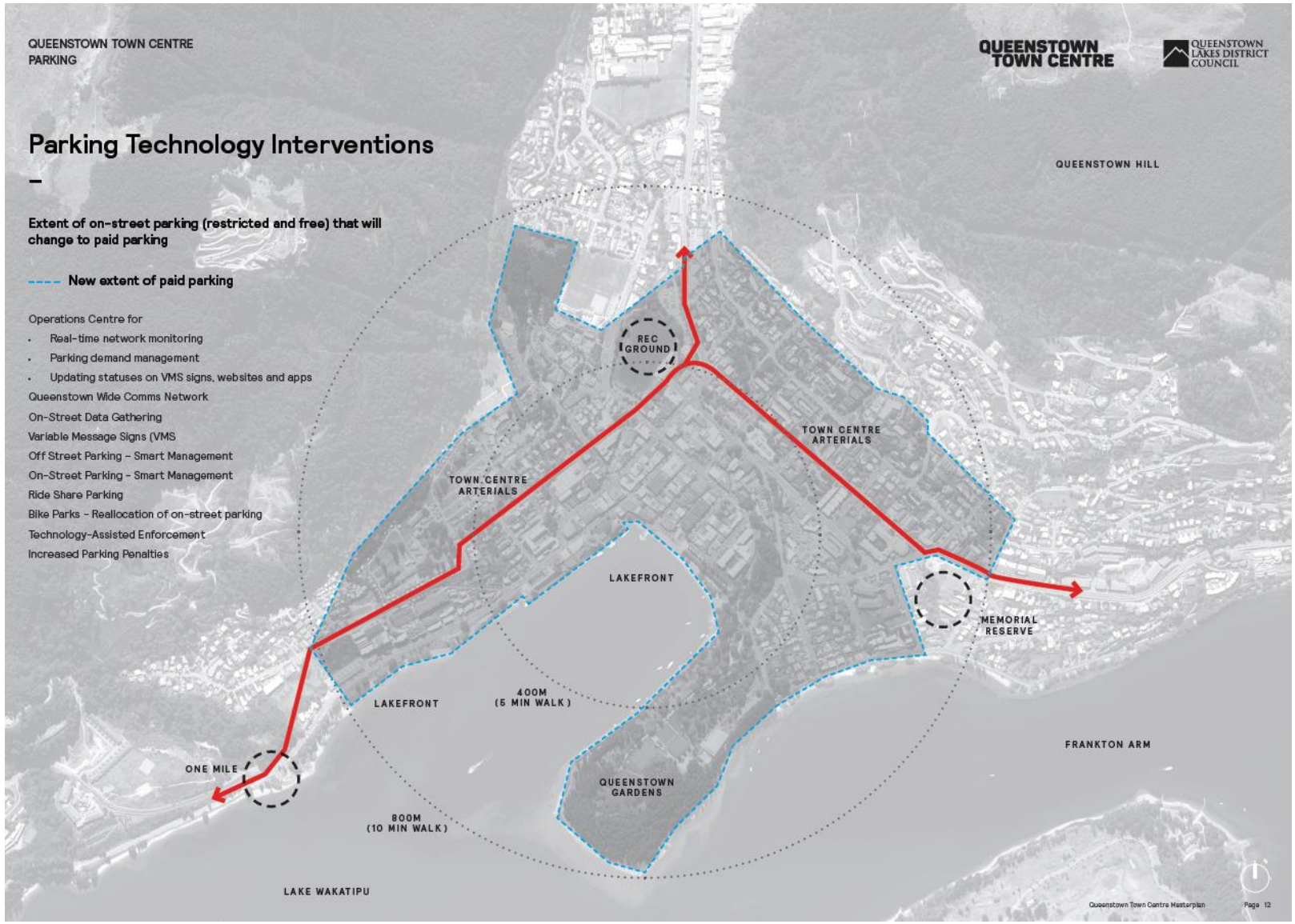


Figure 54: An outline of the new extent of paid parking and supporting technology intervention descriptions

10.3.8 Ride Share Parking

A proportion of on-street parking is proposed to be allocated for ride-share users to encourage car-pooling.

In addition to appropriate markings for ride share parking spaces, an appropriate identification system will be implemented for participating vehicles, typically this would be low cost and in the form of stickers or radio frequency identification (RFI) tags.

10.3.9 Demand Management (increased / variable pricing)

Demand management is intended to encourage modal shift towards park and ride and public transport, as well as increasing availability of parking by introducing flexible time and occupancy dependent parking prices. It is expected that historic data (which shows for example when parking demand is highest) would be used for this, although there is an option for more "real time" flexibility. The model currently assumes that pricing will only increase with inflation and set areas will shift from free to paid, so there is room to explore the right pricing levels in relation to the desired behaviour changes. This area should be explored further through the development of a new QLDC Parking Management Strategy in coordination with a detailed business case.

This is an area where the Masterplan Programme Advisory Group have reflected on the success of this tactic in cities such as Auckland and Wellington. The group comments have centred around the effectiveness of demand management to maintain availability of parking and the lack of time limits. Rather, drivers can select how long they want to stay and pay accordingly. The convenience of parking in high activity areas (like the inner city) attracts a premium price which has the effect of limiting long-term use and encouraging using other means to get there (such as public or active transport). If combined with data collection and electronic / online parking information and booking systems, this intervention will require minimal physical infrastructure, but it requires significant engagement and education.

10.3.10 Bike parks

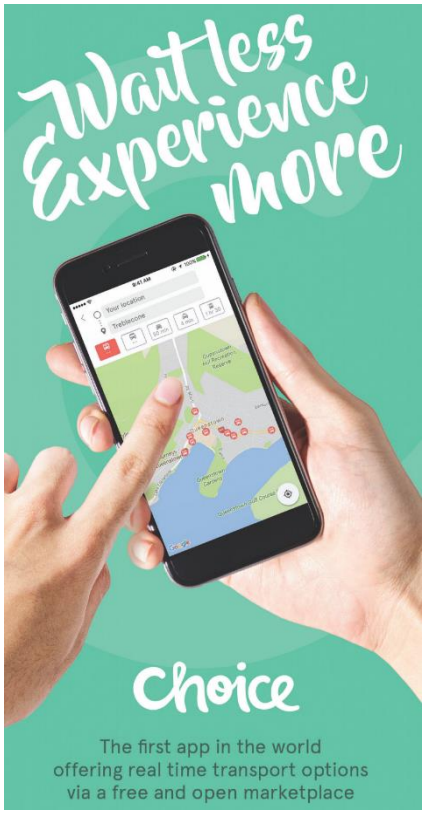
Additional bike parking is proposed in strategic locations around Queenstown. This will comprise a combination of covered and uncovered parks with necessary crime prevention features, intended to encourage modal shift. As the numbers of E-Bikes (electric bikes) grow, we expect this would reinforce the demand for formal bike parking.

The scale of bike parking proposed would not have a significant effect on congestion levels on the main access roads for the town centre.

QLDC is aiming to provide a level of preference for activate travel as compared to private vehicle use. While it will be developed further in the detailed business case, the general approach to prioritisation puts walking at the top, cycling second, followed by public and passenger transport next and private car use next. This will drive consideration of more innovative approaches in the town centre, such as the opportunity to re-purpose existing underground car parking space for use as an end of trip facility for cyclists, walkers and runners. This reflects the developments in larger cities, such as Brisbane, where mode shift has been supported through providing good connectivity and end of trip facilities in a prominent part of the CBD. Titled "Cycle2City", this has been very successful in Brisbane and it provides secure bike storage, showers and lockers for $5 per day, as shown here: http://cycle2city.com.au/

10.3.11 Digital interface

The proposal is that digital interface will comprise a combination of websites, mobile-friendly websites and apps. Functionality will range from parking occupancy information and directions to remote booking systems. It is proposed that this is implemented using existing off-the-shelf systems, leveraging any commercial sector investments where possible. It may be possible to link user interfaces to public transport and other information and booking systems, to facilitate a full 'mobility as a service' approach, in association with the New Zealand Transport Agency. The recent release of the 'Choice' app in Queenstown is an example of a platform that could be expanded to include real time parking information to inform customers. This app uses a partnership between NZTA, QLDC and ORC to provide real time information around transport options.



Description of the Choice App from the NZTA website:

http://www.nzta.govt.nz/traffic-and-travel-information/choice-the-new-real-time-transport-app/how-it-works/

'Choice is the world's first real-time mobility app via a free and open marketplace that helps you to get the most out of your time in Queenstown. Choose what you want, when you want, how you want it – then see your taxi, bus, shuttle, ride-share or helicopter come to you in real time'.

Figure 55: A promotional image form the recent launch of the Choice app

10.3.12 Technology-assisted enforcement

Data collection technology may be used to assist enforcement personnel by alerting them to spaces nearing their time limit, or parking areas which high overstaying history, facilitating more effective use of resources.

10.3.13 Increased parking penalties

Where existing penalties for parking infringements are not seen as sufficient incentives to reduce overstaying time restrictions, increased penalties for infringements could be considered. An alternate is to use increasing hourly rates depending on the length of stay, whereby users will pay the equivalent of the parking ticket charge per hour ($12) for any time over, for example, 4 hours.

10.3.14 Marketing and communications

In order to effectively communicate the changes to the parking system, it is proposed that a programme of marketing and communications is implemented. This may include the following:

- production of maps and leaflets for supply at tourist information centres, transport hubs, hotels and other public spaces
- improved information at tourist information, including banners
- staff training at tourist information, public transport hubs and other public spaces
- programme of workplace and school travel plan workshops.

A challenge unique to Queenstown is that a high proportion of drivers will be visiting for the first time (and they may be hard to access), and marketing and communications activities diverse and will need to be sustained over time.

10.3.15 Park and Ride (Transport hubs)

Park and Ride was confirmed as part of preferred programme theme to reduce vehicles coming into the town centre. The map below shows the possible Park and Ride locations that have been identified as part of the Queenstown Town Centre Masterplan. These Park and Ride facilities would be designed to accommodate Campervans and cars to reduce the number of both commuters and visitors driving into the town centre. The Queenstown Strategic Model identified that at least 600 spaces would need to be delivered as part of the wider transport study.

The construction programme of the Park and Ride areas is based on likely demand, and spread between 2018 and 2026. While there is an option to provide a park and ride facility at the Frankton Marina, this has not been included, as it would contribute little to bus or ferry patronage.

Recent stakeholder discussions have raised the potential to re-name these facilities given they will provide a facility that is wider than just parking and riding from a car perspective. Given they will support walk and ride or cycle and ride activities, there may be an opportunity to rename them as a “transport hub”, or something similar. This can be further investigated through the detailed business case and should be tested through community interactions. The important element here is demonstrating the broader value to help drive a larger uptake of public and active transport options.

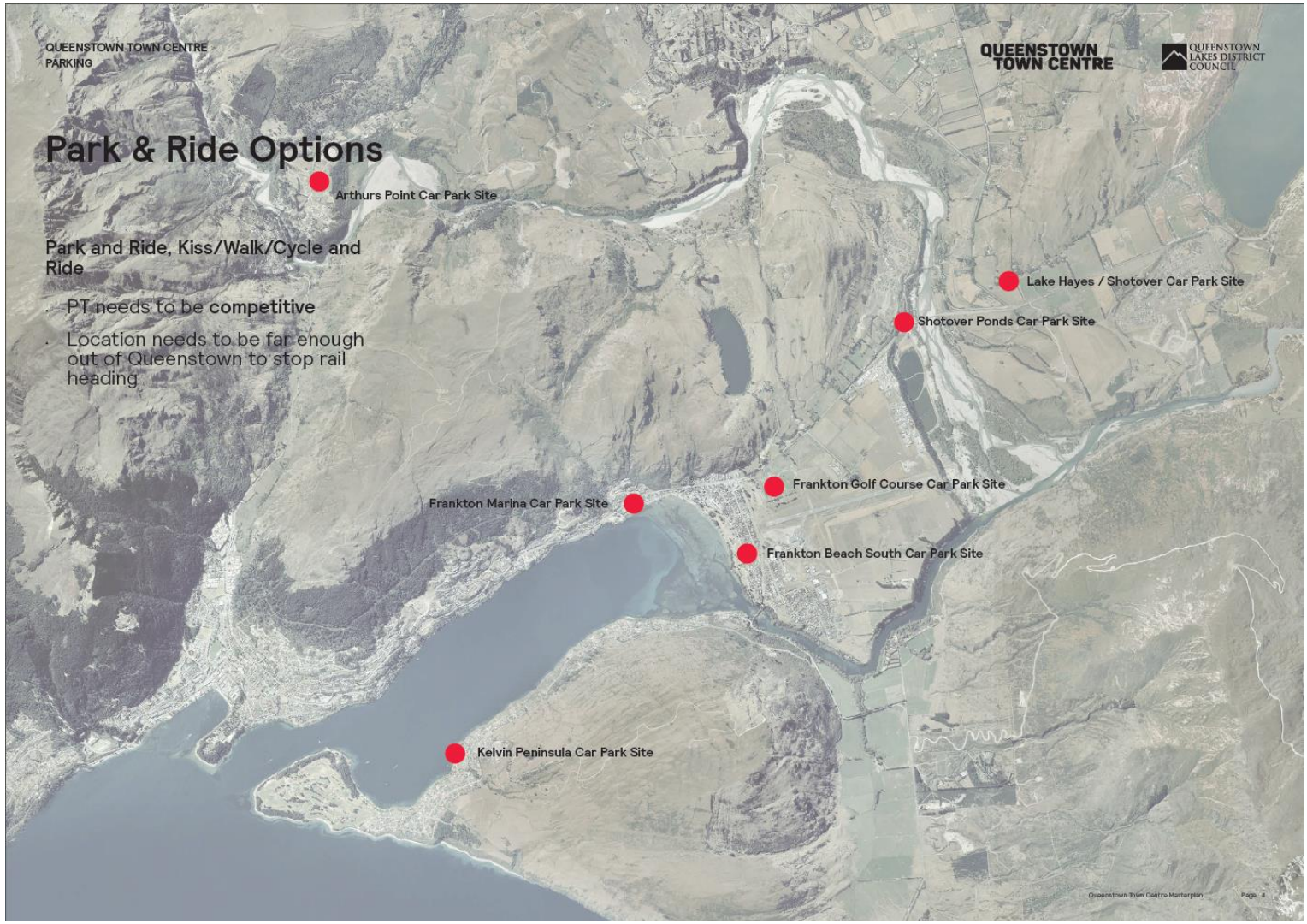


Figure 56: Park and Ride site options

10.3.16 Off-street parking changes

To provide for future growth and offset the reduction in on-street parking due to other masterplan projects, upgrades and new developments are proposed around the town centre fringes. These changes will aim to draw traffic directly from the arterials and encourage drivers to park in these areas and walk into the town centre, reducing the number of cars and congestion in the town centre streets. The preferred off-street parking sites were selected based on their ease of access from the proposed new arterial alignment, which demonstrates the catalytic nature of the arterials as an enabler for parking changes. They were also progressed if they were on the town centre fringes, utilised land well and are highly accessible to pedestrians form the town centre. The aim is not to provide an endless supply of parks, but rather, enough parks in the right places to support growth, manage impacts and encourage traffic to stay outside the town centre. These changes are shown below with the sites for new car parks and redeveloped current sites shown, along with potential car park numbers for each site.

The numbers shown on the left side of the image below represent what the project team believe is required as part of a staged development programme, while the numbers on the location demonstrate higher numbers that could be applied for each site. Importantly, the total parking change is also shown in this diagram and this recognises the impact that the masterplan projects will have and it provides a recommendation of what is required to manage these impacts while supporting growth. This is explained further in section 8.4 – modelling outputs.

10.3.17 A flexible approach

While a draft schedule has been put together for all Masterplan projects and expected costs have been loaded into the budget for the QLDC Long Term Plan, this programme can be applied in a scalable and flexible way. As the largest investments proposed in this programme, the development of new parking buildings or redeveloping existing sites, can be staged to meet and respond to known demand and shifts in use or disruption. There is also the opportunity to look at some of the longlist location options considered in earlier discussions if it is decided that the preferred sites may have a better use for the town. Furthermore, the new parking buildings have been scoped as having flexible use that can be adapted to meet other needs, if the parking demand is disrupted. The proposed specifications proposed for these sites allow for a structure that can be repurposed to other uses, such as apartment development, through using appropriate ceiling heights and floor layouts. It should also be recognised that while these new parking buildings may represent the largest investment in this programme (depending on the way they are procured), they can also deliver comparable revenue.

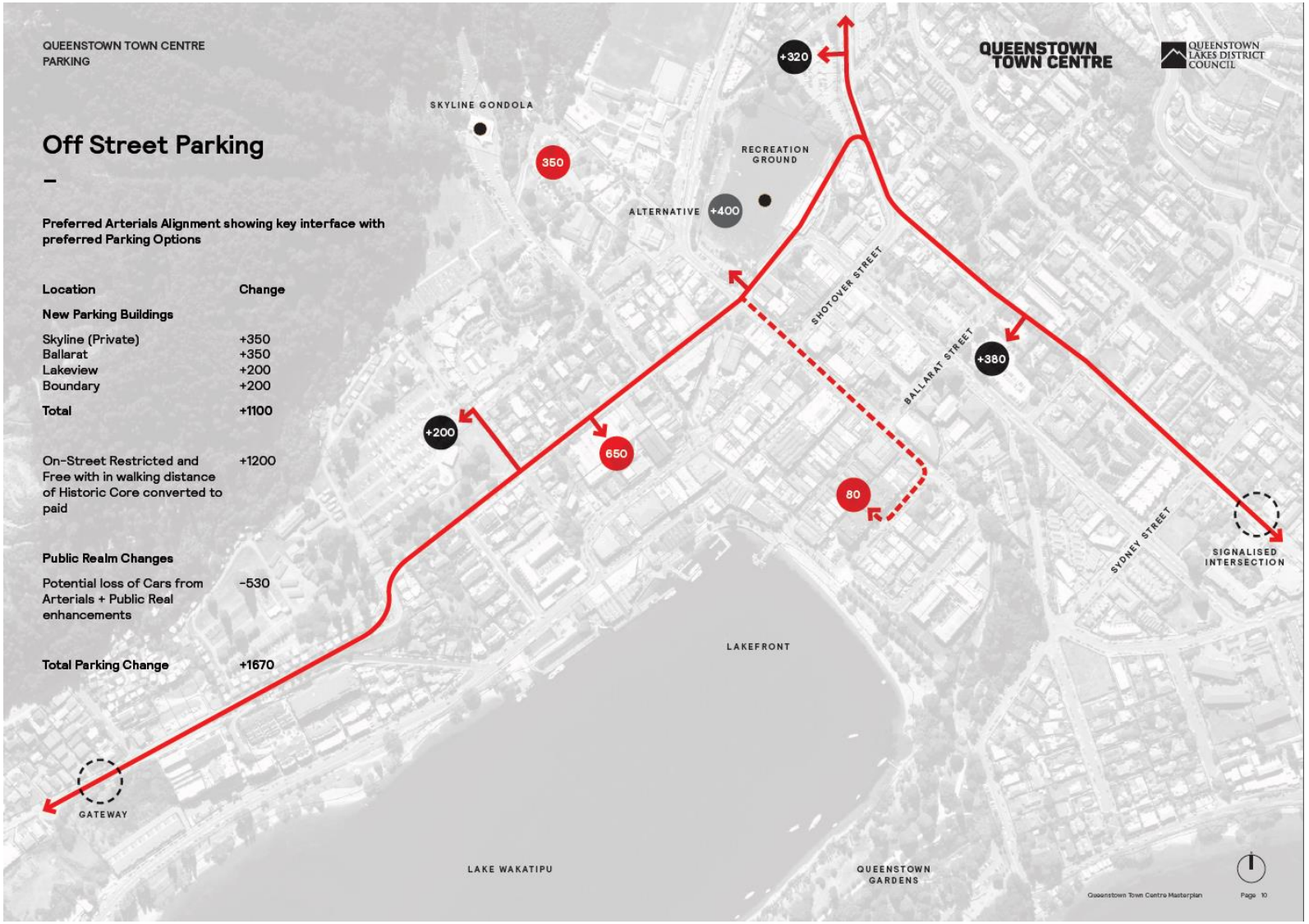


Figure 57: An outline of proposed changes to off-street parking and an aerial view of relevant sites. The black circles are new proposed off-street parking buildings, while the red demonstrates already planned or existing parking buildings.

10.3.18 Integration with other Masterplan projects

As shown in the diagram below, the proposed new/redeveloped off-street parking sites align with the other masterplan projects and the intent of the masterplan by drawing traffic to the fringes, supporting walkability into town, aligns with the civic axis proposal, allows the town centre to grow and encourages traffic to use the arterials while reducing the number of cars around the public transport hub.

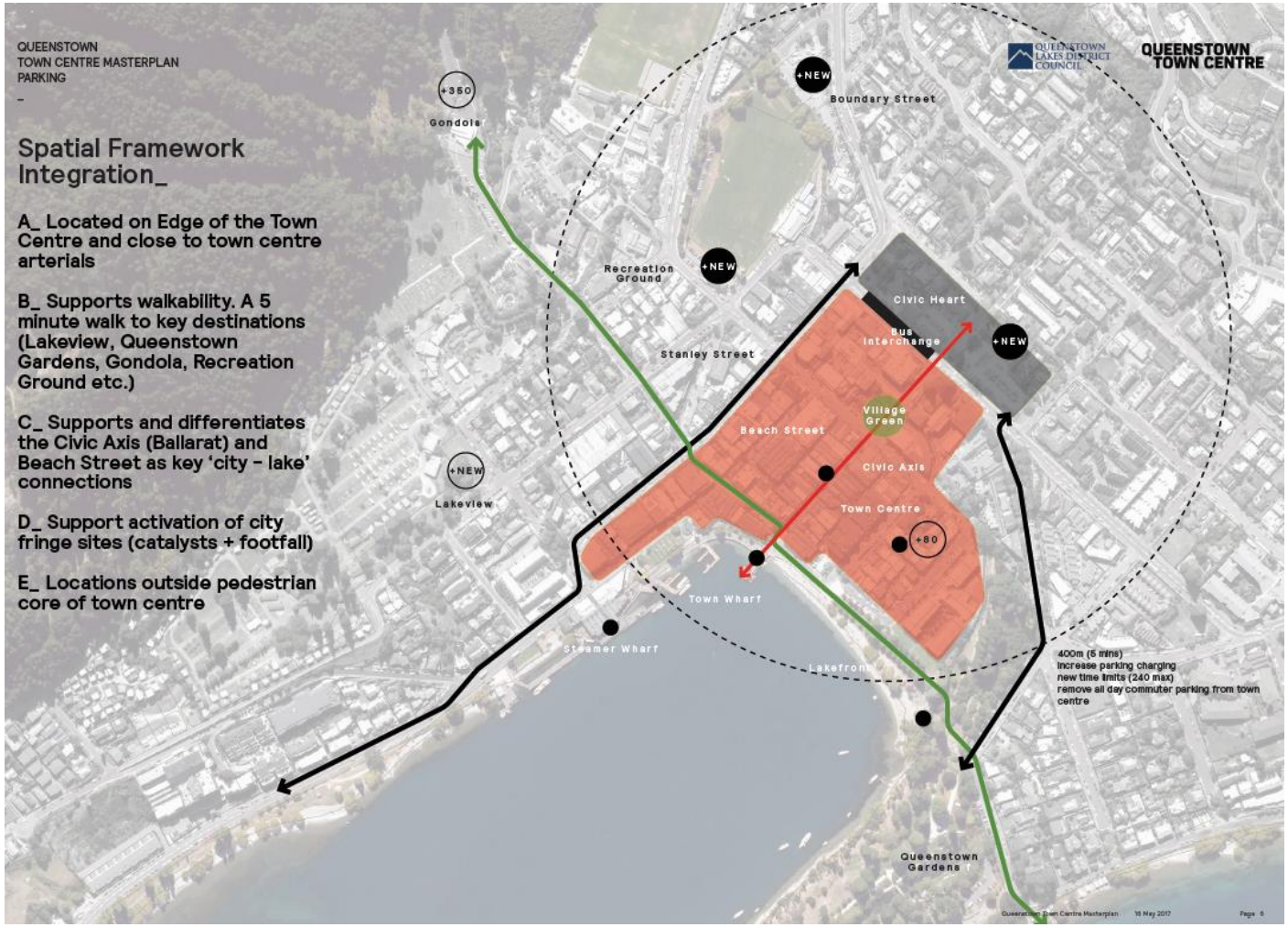


Figure 58: An outline of the preferred programme parking facility and management changes set in the context of other proposed masterplan activities

10.4 Modelling outputs and recommendations

The content below has been sourced from the economic analysis completed by Abley Transport Consultants to analyse and inform the Masterplan transport projects. This report is included as Appendix 11. These outputs validate the preferred programme actions and also provide detail on when and how changes can be made in a strategic manner to balance the forecast parking requirements while encouraging mode shift.

Queenstown-Lakes District Council (QLDC) engaged Abley Transportation Consultants (Abley) to provide transport planning and transport economics support to Beca Consultants for the Queenstown Town Centre. The modelling takes into consideration the likely uptake of public transport in alignment with the draft recommended programme from the Queenstown Integrated Transport PBC, and includes a range of inputs from the Masterplan PBC team including:

- parking supply, charges and time restrictions
- provision for a bus hub in the town centre with bus priority
- introduction of new arterials and associated changes in parking availability.

Two options have been assessed at 2025 and 2045 using the QLDC Tracks Transportation Model and the economic benefits and costs of the new arterials included within each scenario have been assessed in accordance with NZ Transport Agency Economic Evaluation Manual (EEM) 2016 full procedures.

As part of the Queenstown Strategic Transport Model upgrade the Parking CALM module has been included. This has been calibrated using the 2017 Parking Survey undertaken by MWH. The results of the modelling were used to quantify the parking changes and required additional capacity as part of the programme of interventions.

The CALM parking model includes the following parking types within the area shown below:

- private off-street commercial (free parking)
- public free parking
- public free time restricted
- public paid parking.

In addition, the model includes benchmarked elasticities for parking changes to reflect changes in parking charges.

Figure 59: Queenstown Strategic Transport Model – Parking Zones Map

Within the 2016 base year transport model and based on the MWH parking survey, the existing parking numbers by type are outlined below.

Table 18: Existing 2016 parking spaces by type

Year	Total Parking	Private off-Street Commercial (free) parking	Public free all-day parking	Public free time restricted	Public Paid Parking
2016 Do Nothing	5,605	1,736	2,373	572	924

The management of parking is part of an integrated approach to traffic demand management. As part of this approach to control the use of free on-street parking by commuters, and therefore manage vehicle traffic travelling into and out of Queenstown via Frankton Road, a staged approach is proposed to convert 50% of free all day and 100% of restricted all day on-street parking in the 2025 and 2045-year models to paid parking. The proposed zones affected by 2025 and by 2045 are shown below.

Figure 60: Queenstown Strategic Transport Model – 2025 Staged Paid On-Street Parking Zones Map

By 2025, as part of the construction of the new arterials and public realm works, it is proposed that 312 on- street spaces will be removed, as shown below.

Table 19: On-Street Parking spaces removed as part of the New Arterials and public realm changes

Street Name	Existing	Proposed	Change
Athol St	63	20	-43
Ballarat St (North)	20	10	-10
Henry St	47	10	-37
Man St	99	50	-49
Melbourne St	81	50	-31
Memorial St	23	0	-23
Shotover St	124	40	-84
Stanley St	35	0	-35
Total	**492**	**180**	**-312**

To address this reduction in on-street parking both within the historic core and along the arterials it is proposed that approximately 400 off-street parking spaces will need to be constructed within one or two separate parking buildings located at:

- Lakeview: 200 spaces
- Boundary Street Carpark: additional 200 spaces
- Or alternatively under the Recreation Ground: 400 spaces.

In addition, based on the staged approach to converting on-street and free restricted parking to paid parking, approximately 880 parking spaces would be changed to encourage commuters to use public transport. Based on these changes the percentage occupancy of paid parking at 1.00pm within the walking zone will be 64%. The parking statistics from the CALM model are shown **Error! Reference source not found.**.

Table 20: 2025 Parking Spaces by Type

Year	Total Parking	Private off Street Commercial (free) parking	Public free all day parking	Public free time restricted	Public Paid Parking	Public Paid Parking within Walk Catchment	% Occupancy at 1.00pm
2025	5,886	1,736	1,567	142	2,441	2,174	64%

Figure 61: Queenstown Strategic Transport Model – 2045 Staged Paid On-Street Parking Zones Map

By 2045, as part of the construction of the additional public realm works, it is proposed that 170 additional on-street spaces will be removed as shown below.

Table 21: On-Street parking removed as part of the new arterials and public realm changes

Streets Name	Existing	Proposed	Change
Brecon St	145	104	-41
Church St	78	38	-40
Earl St	58	30	-28
Marina Parade	15	0	-15
Camp St	39	12	-27
Lake Esplanade	112	150	38
Park St	307	250	-57
Total	**754**	**584**	**-170**

To address this reduction in on-street parking both within the historic core and within the surrounding town centre it is proposed that approximately additional 700 off-street parking spaces will need to be constructed by 2045 located at:

- Skyline (Private): 350 spaces
- Ballarat Street Carpark (Community Heart): 350 spaces

In addition, based on the staged approach to converting on-street and free restricted parking to paid parking, approximately an addition 320 parking spaces would be changed to encourage commuters to use public transport by 2045. Based on these changes the percentage occupancy of paid parking at 1.00pm within the walking zone will be 74%. The KPI developed as part of the Investment Logic Map was that the percentage of occupancy at 1.00pm the peak parking demand should be less than 85%. This KPI could be met by applying the proposed parking strategy.

The parking statistics from the CALM model are shown below.

Table 22: 2045 Parking by Type

Year	Total Parking	Private off-Street Commercial (free) parking	Public free all-day parking	Public free time restricted	Public Paid Parking	Public Paid Parking within Walk Catchment	% Occupancy at 1.00pm
2045	6,207	1,736	1,140	101	3,230	2,490	74%

A summary of how parking numbers in Queenstown could change over the masterplan delivery period are shown below through each scenario. Given scenario 2 has been seen as the more mature and informed approach, the preferred programme has been developed and tested using that scenario. The 'core zones' refer to sections 1-7, 9, 16-23, 205 and 208 of the Strategic Transport Model map shown above.

	Inventory	Private off Street Commercal (free) parking									Public free all day parking								
		Total	All Free at 7.00am	%	All Free at 9.00am	%	All Free at 1.00pm	%	Core Zones Walk Catchment	Free at 1.00pm	%	Total	All Free at 7.00am	%	All Free at 9.00am	%	All Free at 1.00pm	%	Core Zones Walk Catchment	Free at 1.00pm	%
2016 Do Nothing	5605	1736	1283	26%	1074	38%	926	47%	1244	121	90%	2373	1283	46%	1074	55%	926	61%	1244	88	93%
2016 Scenario 1	5605	1736	1530	12%	247	86%	218	87%	1244	123	90%	2068	1283	38%	1223	41%	1138	45%	590	86	85%
2025 Scenario 1	5886	1736	1258	28%	253	85%	222	87%	1244	148	88%	2003	960	52%	651	67%	547	73%	542	71	87%
2045 Scenario 1	6487	1736	1000	42%	235	86%	208	88%	1244	143	89%	1922	763	60%	239	88%	555	71%	484	73	85%
2025 Scenario 2	5886	1736	1258	28%	288	83%	269	85%	1244	186	85%	1567	806	49%	365	77%	443	72%	165	21	87%
2045 Scenario 2	6207	1736	1000	42%	259	85%	248	86%	1244	180	86%	1140	527	54%	43	96%	184	84%	0	0	0%

	Inventory	Public free time restricted									Public Paid Parking								
		Total	All Free at 7.00am	%	All Free at 9.00am	%	All Free at 1.00pm	%	Core Zones Walk Catchment	Free at 1.00pm	%	Total	All Free at 7.00am	%	All Free at 9.00am	%	All Free at 1.00pm	%	Core Zones Walk Catchment	Free at 1.00pm	%
2016 Do Nothing	5605	572	315	45%	271	53%	170	70%	845	123	85%	924	671	27%	233	75%	46	95%	470	46	90%
2016 Scenario 1	5605	681	315	54%	277	59%	177	74%	529	127	76%	1120	671	40%	282	75%	58	95%	1120	58	95%
2025 Scenario 1	5886	589	242	59%	145	75%	125	79%	439	82	81%	1558	944	39%	987	37%	613	61%	1358	589	57%
2045 Scenario 1	6487	527	194	63%	119	77%	119	77%	385	76	80%	2301	1561	32%	1413	39%	473	79%	1901	360	81%
2025 Scenario 2	5886	142	30	79%	39	73%	42	70%	0	0	0%	2441	1311	46%	1408	42%	849	65%	2174	784	64%
2045 Scenario 2	6207	101	13	87%	25	75%	30	70%	0	0	0%	3230	1754	46%	1575	51%	829	74%	2490	657	74%

Figure 62: A snapshot of parking numbers in Queenstown through each scenario

10.5 Programme implementation strategy and trigger points

The parking programme proposed shares a 2050 horizon with the overall masterplan and it aligns with the programme currently proposed in the QITPBC. Alongside the proposed arterial, public transport and public realm changes, parking improvements will play a key role in providing more accessible and enjoyable town centre.

Implementation needs to be carefully staged and implemented in a well-considered and integrated way. It's not practical to make rapid large-scale changes due to community and commercial sensitivities and the need to spread the investment over a manageable term. These include retail sensitivity around removing or increasing charging (due to strong competition in the Frankton town centres, which has free parking for up to 2 hours) and community sensitivity around introduction of parking charges in areas that were previously free. While neither of these things are reasons to not make changes, the transition will need to be managed in a collaborative and considerate way that provides viable alternatives in the place of changed parking arrangements, such as better public transport provision and improved active transport access. Frankton Road is well documented to be at capacity by 2025 and therefore it is prudent to ensure that the Queenstown town centre retains its commercial appeal and functionality, which will need to be well managed closely while the required parking changes are applied. On a similar note, adequate parking supply will need to be maintained or added when parking is removed as part of this programme or wider masterplan activities. For example, when parks are removed from the new arterial route, new off-street parking needs to be available to meet demand.

Feedback provided to the project team from the Advisory Group has encouraged QLDC to take an incremental and balanced approach to parking changes. This means that as stated by Darren Davis (of Auckland Transport), QLDC need to get the 'carrots right first' and gradually make changes in an open and transparent way. The 'carrots' in this instance are the improved technology tools to support parking use and transport choices, in addition to improved public transport and park and ride offerings to encourage less trips to the town centre via a private vehicle. Equally important is the use of demand management through varied pricing regimes to incentivise use of public and passenger, or active transport.

To maintain trust and to confidently move through the proposed changes, the engagement approach that has been used to date should be continued, with broad consultation on the programme (as part of the masterplan) and staged communications to inform people ahead of changes. If the community can see the rationale clearly and understand that change will be gradual, expectations and associated behaviours can be changed positively.

10.5.1 Programme delivery schedule

It is critical to ensure that a delivery schedule leverages integrated actions to enable each stream, informs long-term plans, and demonstrates value for money through delivering the right infrastructure at the right time for the right price. The draft schedules shown below demonstrates how the masterplan programme is planned to be delivered and how the QLDC LTP will plan to support this investment. It is also critical for the Queenstown Masterplan programme to align with and support the QITPBC programme. As shown in the schedule diagrams provided below, there is good alignment between these programmes and this needs to continue. These schedules also demonstrate how the proposed parking changes can commence very quickly and progress over the longer term in affordable steps that can be managed in a way that does not create overlapping or excessive impacts. This programme is a flexible one that can adapt to disruption and significant consumer shifts. In particular, the construction of new car parking buildings can be moved as required depending on the success of the progressive stream of less expensive interventions, including changed parking restrictions/pricing/enforcement, improved public transport services and the development of a park n ride network.

QUEENSTOWN TOWN CENTRE MASTERPLAN

PROPOSED CONSTRUCTION SEQUENCING SCHEDULE

13 October 2017

	1	2	3	4	5	6	7	8	9	10
	2018/19	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**
Parking (Buildings)										
Parking Building (Boundary St)										
Parking Building (Ballarat St/Project Connect)										
Parking (Interventions/Technology)										
Parking Interventions/Technology (Phase 1)										
Parking Interventions/Technology (Phase 2)										
Town Centre Arterials										
Arterial Route Designation										
Land Acquisition										
Stage 1: Melbourne St to Henry St										
Stage 2: Henry St to Man St										
Stage 3: Man St and Thompson St (to One Mile)										
Public & Passenger Transport Facilities										
Public Ferry Wharves										
Stanley St Interchange										
Public Realm Upgrades										
Upper Beach St										
Rees St										
The Mall (superficial not full upgrade)										
Brecon St (Gondola to Man St only - incl. pedestrian crossing across Man St)										
Lower Beach St & Earnslaw Park										
Brecon St (Lower Brecon)										
Park St										
Rec Ground (Infrastructure and edges relative to the new Memorial Arterial)										
Ballarat St & Village Green										
Stanley St										
Athol St										
Fernhill-Lakeview Walk/Cycle Connection (Town Link track)										
Camp St										
Cow Lane										
Shotover St										
Lake Esplanade										
Church St & St Peters Open Space										
Searle Lane										
Earl St										
Marine Parade (balance)										
Community Heart										
Community Heart (Memorial Hall replacement etc)										

Figure 63: The proposed construction schedule for the Queenstown Town Centre Masterplan programme.

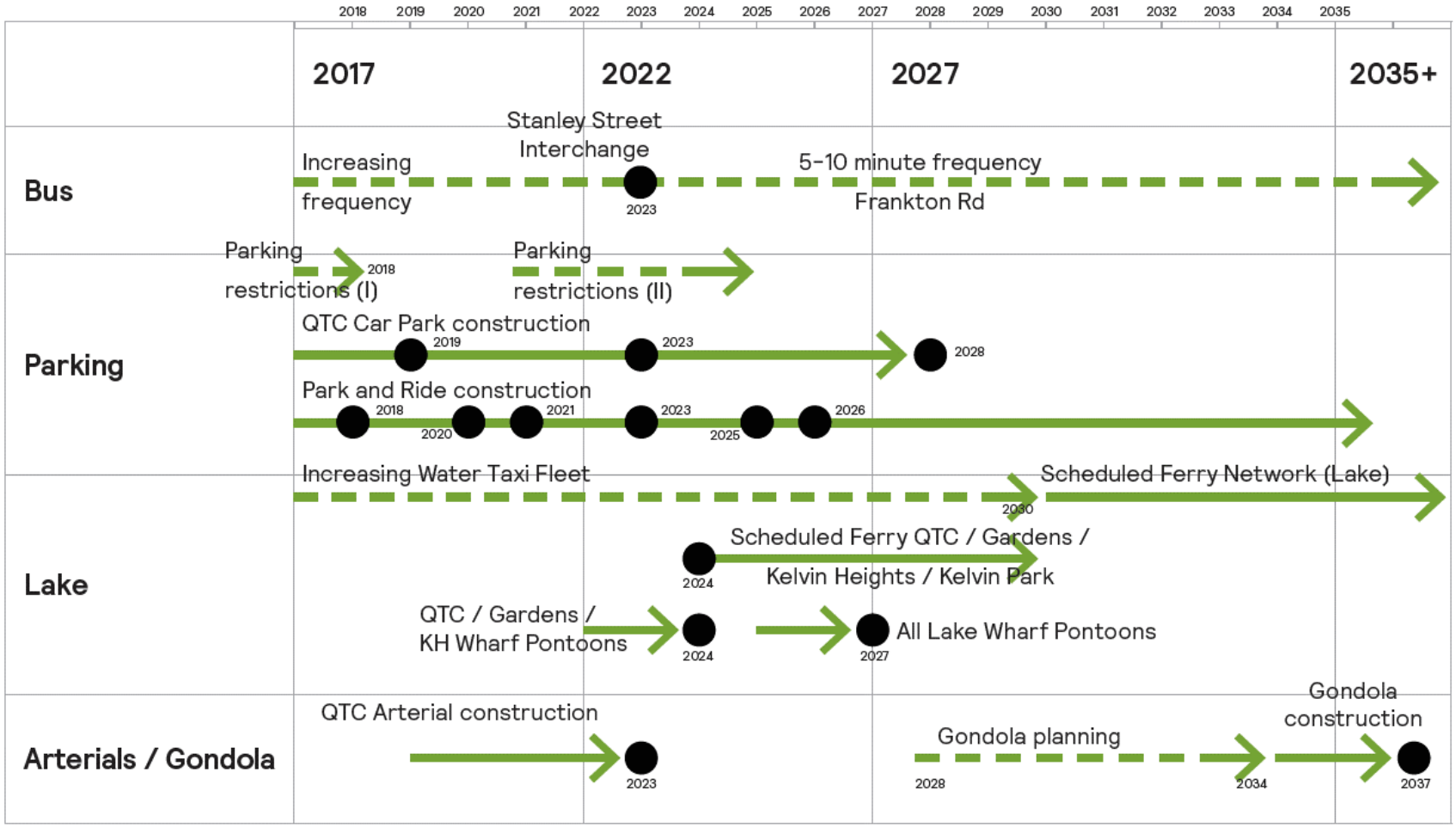


Figure 64: A linear and more detailed view of proposed implementation schedule for the Queenstown Town Centre Masterplan.

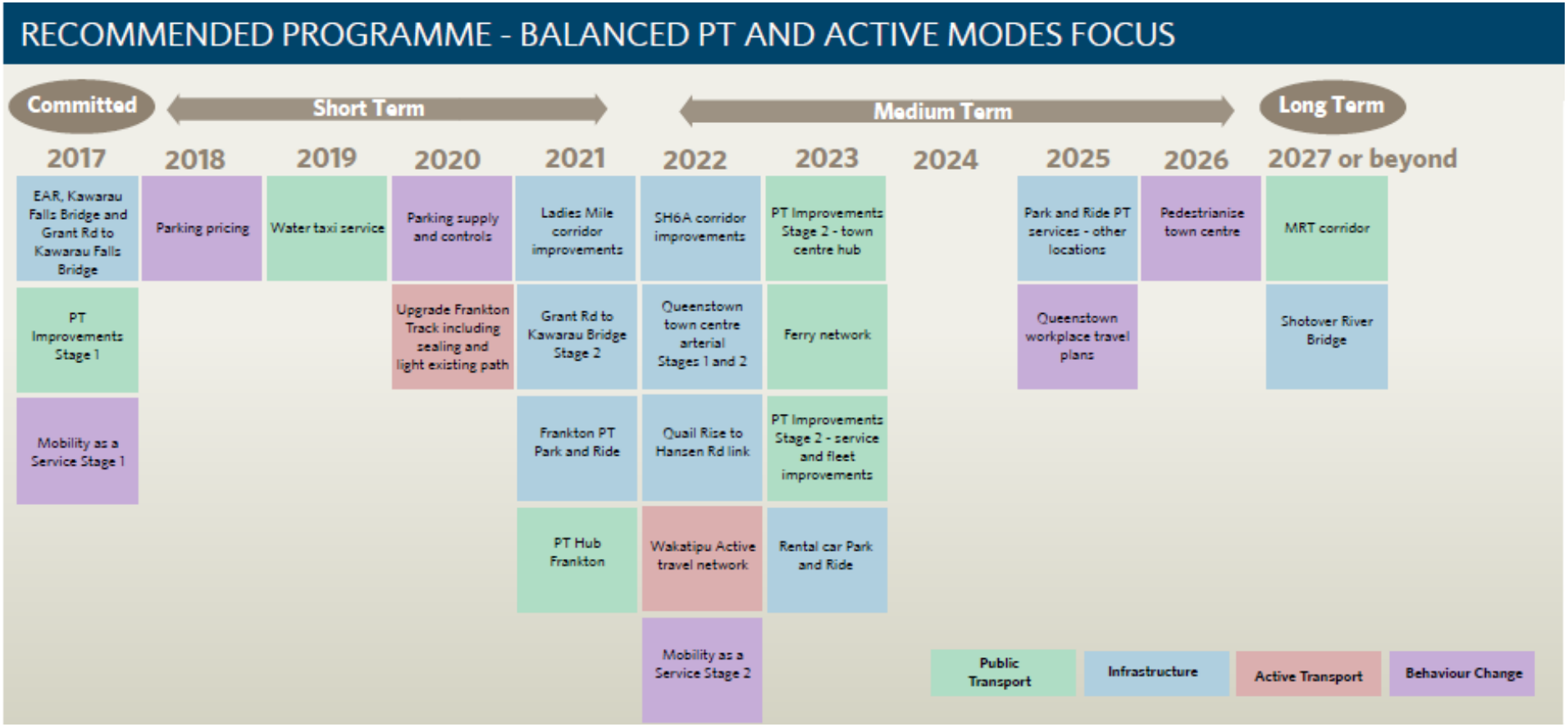


Figure 65: The Queenstown Integrated Transport Programme Business Case – recommended programme

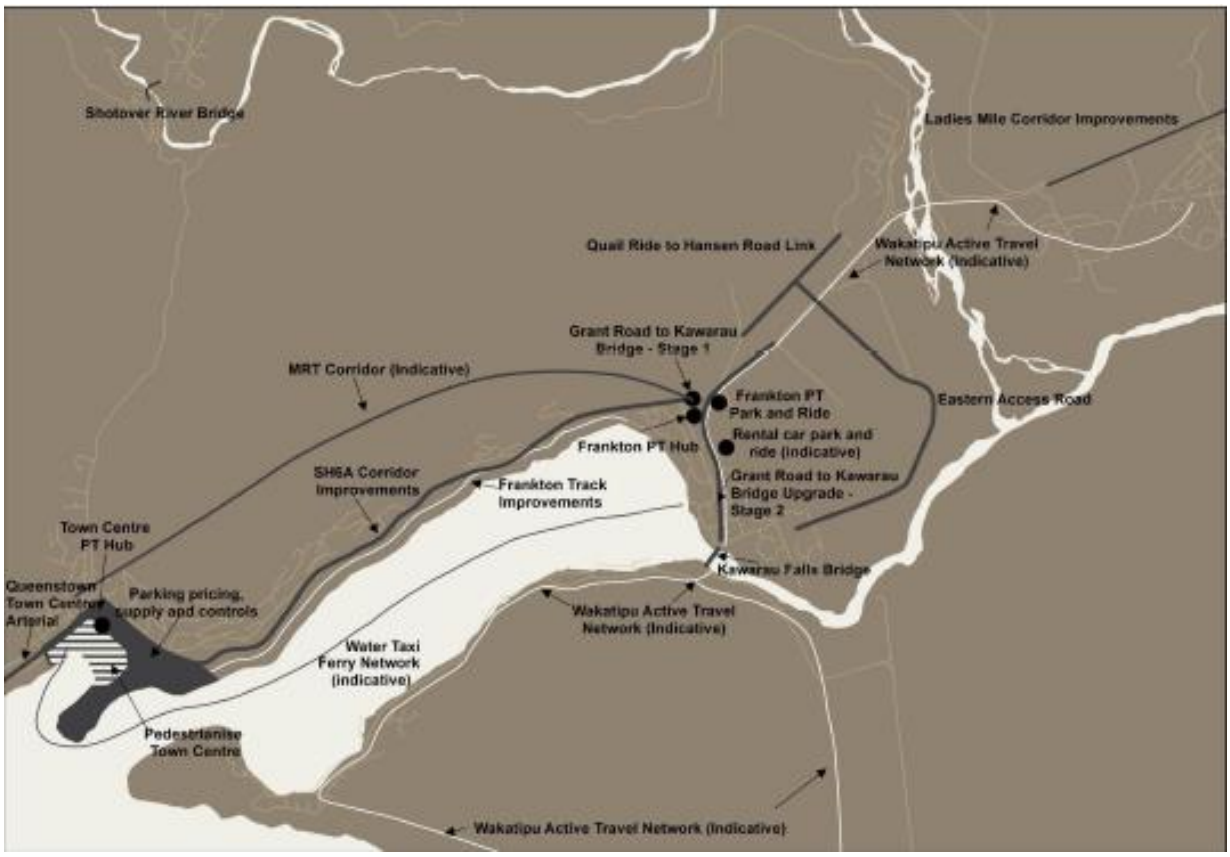


Figure 66: The Queenstown Integrated Transport Programme Business Case – recommended activities outline

11 Preferred programme assessment

11.1 Assessment method

The preferred option has been assessed through an MCA ahead of detailed analysis including modelling, costing and rating against the NZTA Investment Assessment Framework.

The MCA provides the grounds for holistic assessment of each option, ahead of further investigations into the cost break down and economic efficiency of the programme.

The MCA also demonstrates the balance of factors that are considered to demonstrate that the selected programme delivers against the investment objectives, provides a value for money solution and is affordable.

11.1.1 Preferred Programme Risk

As shown in the MCA analysis, the preferred programme carries a balanced risk profile and compares well alongside the other options considered.

A list of recognised risk types has been discussed to generate a rating that should be further informed as the business case is developed, including cost and delivery time risk. This analysis was completed by Rationale and Beca in coordination with stakeholders from QLDC.

Risk types	Risk rating
Technical	H
Operational	L
Financial	M
Stakeholder/Public	H
Environmental	M
Safety	L
Economic	L
Accessibility & Social Inclusion	L
Impact on Business Community	L

11.1.2 Masterplan and Parking Programme Risk

A workshop was held on 4 April 2017 with the wider project team to work through the major risks presented by the entire Masterplan Programme. This workshop produced an agreed risk assessment that will transfer into each programme's risk management and forms part of the ongoing reporting for the Masterplan programme (shown below). These risks were then revisited and detailed through a second workshop on 6 June and a third workshop on 4 August. The outputs of these workshops are shown in Appendix 7. This will be updated as the programme and projects progress.

11.2 Value for Money

As noted in the NZTA Investment Assessment Framework, 'value for money describes the optimal balance of spend and inputs in order to deliver optimal outputs and outcomes. It is about maximising the net present value of government spending, subject to other non-quantifiable constraints', or 'doing the right things in the right place at the right time for the right price in the right way to achieve the desired outcomes'.

In assessing value for money, all of the economic, environmental, social and distributional impacts of a programme are consolidated to determine the extent to which a programme's benefits outweigh its costs.

The MCA approach used provides the initial value for money assessment, with multiple options compared and contrasted using their link to investment objectives, assumed cost levels and delivery timings, in addition to evaluation against business needs and risks.

11.2.1 Benefit Cost Ratio

A benefit cost ratio has also been developed to demonstrate the value of this project as part of a wider masterplan programme. This approach was used to demonstrate the inter-related nature of the value of the masterplan projects (arterials, parking and public and passenger transport facilities). The resultant discounted benefits, costs and programme BCRs are shown in the table below. The BCR shown for the preferred masterplan programme (6) is shown below as a range of 2.5-4.7. An incremental analysis of benefits and costs for the masterplan programme has also been undertaken. This is discussed in the Town Centre Masterplan Indicative Programme Business Case and the supporting Abley report (included as Appendix 11).

Table 23: Programme BCR analysis

Base Option	Programme	Upper Programme Cost ($)	Lower Programme Cost ($)	Programme Benefit ($)	Low BCR	High BCR
1	2	6,292,057	4,840,157	50,545,366	8.0	10.4
1	3	120,878,913	87,799,437	370,386,636	3.1	4.2
1	4	157,905,142	95,423,530	375,574,268	2.4	3.9
1	6	219,207,740	116,445,169	552,560,087	2.5	4.7

11.2.2 Strategic Fit/results alignment

While parking improvements are not specifically addressed under the NZTA Investment Assessment Framework, there is a desire to demonstrate alignment to the wider transport network improvement. This alignment is clearly established through the role that parking changes can play in supporting the uptake of public, passenger and active transport modes, changing how the Queenstown Town Centre Arterials work and collectively contributing to reduced congestion in the area.

The preferred programme aligns with a rating of High in terms of strategic fit through enabling the following transport improvements for the Queenstown Town Centre:

- easing of severe congestion
- optimised levels of service, operation and management of networks
- improving journey time reliability
- maximising access to significant markets, areas of employment or economic growth
- supporting growth in Tourism.

A range of alternative options have been considered using a multi-criteria analysis, generally following the criteria in the NZTA Detailed Business Case approach. This has facilitated the movement through the programme longlist development through to shortlisting and the identification of a preferred programme. Key partners were involved in workshops and decision making.

This Business Case shows how this programme meets the six criteria related to 'Effectiveness':

11.2.3 Outcomes focus

The programme provides a wide set of steps that can deliver a tangible change in parking performance in Queenstown, while contributing to better transport outcomes and a more people-centric town centre. While there is no set NZTA level of service assigned to parking, this programme demonstrates a clear outcome focus around achieving a better level of occupancy and supporting tangible shift for people out of cars and into public or active transport modes. As shown through initial engagement and stakeholder input there is a strong desire to improve the pedestrian and cycle potential of the town centre, which will require a staged removal of some car parking. The outcomes are therefore focused on making parking more easily found and providing a set of much more reliable parking supply options. At present the parking issue is particularly acute, which is causing parts of the town centre being at full capacity, illegal driver behaviour and an unnecessary number of fines that are difficult to recover as many travellers leave the country without paying them. The options focus on looking at time, charging, technology, different vehicles and supply, access into a strategy that is described in this preferred programme.

11.2.4 Integration

By having an integrated approach through the Masterplan, the parking programme can benefit from a holistic perspective that can best understand and leverage triggers for change, while ensuring the collective actions can achieve the best value for money.

11.2.5 Informed and flexible planning

Scope for this programme has been informed by detailed analysis and a collaborative approach to identifying, understanding and addressing the agreed problems. A healthy mix of qualitative and quantitative data has informed development through a range of tools, including regular parking surveys that capture feedback from residents and visitors. This programme has also benefitted from the re-establishment of a parking model tool to allow us to utilise the data to forecast future parking demand. This has been have used to inform the development of options and solutions that span from management through to technology, infrastructural interventions and marketing. There is not a possibility of rapid large-scale changes owing to the retail sensitivity around removing or increasing charging, due to the strong competition in the Frankton town centres, which has free parking for up to 2 hours. Therefore, that needs to be a staged implementation that is staggered over many years to manage parking demand and encourage people onto public transport as a more viable alternative. Frankton Road is well documented to be at capacity by 2025 and therefore it is prudent to ensure that the Queenstown Town Centre retains its commercial appeal and functionality, which will need to be well managed while the required parking changes are applied. This means Frankton Road will continue to reach poor levels of service, where concerted effort will need to be applied by all transport agencies to discouraging people from parking in the town centre by having a more efficient set of transport and parking options.

11.2.6 Timely delivery

The evidence presented has demonstrated a need to act quickly to make parking changes to address current and growing future needs. With parking utilisation in the town centre already well above the optimal level and the significant contribution that parking circulation makes to congestion in the Town Centre, the preferred programme presents a collection of interventions that can be delivered over a longer period, while prioritising the urgent activities. The integration with the Masterplan programme also means that parking changes will play a key role as a catalyst for change and increased uptake of Public, Passenger and active transport services. The evidence also demonstrates that parking reforms need to happen in the short term to allow for planned land use changes and to support the disruption that will occur through the transition to new facilities and changed use of roadways.

11.2.7 Risk management

In an environment where some of the highest order risks are driven by public sentiment and scepticism around previously unsuccessful changes in this area, this programme present an opportunity to build confidence. Through the work that has been done to date to convey an integrated and well proven case for change, the implementation of parking changes as proposed in this programme can be shown to demonstrate well considered action in an area that has suffered due to underinvestment and a perceived lack of foresight. The integrated approach of the Masterplan also provides a level of surety to stakeholders that the proposed

interventions of this programme will not be undermined by other priorities and projects delivered in the town centre across the same timeframe.

12 Outlining the Commercial Case

At this indicative stage, this Commercial Case will focus on the key strategies to ensure this programme is commercially viable and how the market will be engaged to deliver it.

Key components are the requirements statement, strategies for procurement, consenting and property acquisition, alongside the approach to risk allocation and delivery responsibilities.

12.1 The deal – what we require

To deliver the preferred programme, QLDC needs to deliver a set of services and facilities. Some of these can be delivered internally, while other elements need to be procured from the market.

The items that could be delivered through engaging the market include:

- the next stage of business cases and all associated technical and professional services
- the design, construction and operation of new parking buildings
- the design and construction of new park and ride facilities
- the design, development and operation of enabling technology (that will also support the wider Masterplan, particularly Public and Passenger transport).

From a new parking building perspective, QLDC may provide land with the aim of gaining a return on it and the land. It may be offered as part the deal for a developer/operator to have access to a prime location already identified as a productive site for parking and that is well supported by a range of other masterplan activities, such as changing the arterial route (to feed traffic straight to the car parks on the Town Centre fringes) and increased on street parking prices (including making a wider area paid as opposed to free parking). All of this adds up to an attractive package that is expected to be embraced by the market. Developers may also be attracted to a potential to develop a number of buildings within the masterplan, such as the new Council Office. Project Connect also offers a significant opportunity to build on prime land and deliver agreed civic facilities in addition to the Council office, alongside an opportunity to construct a high visibility showpiece.

At this stage, it is assumed that the increased enforcement area and inventory management will be done within QLDC as part of ongoing operations while leveraging the benefits that come from technology around digital enforcement and upgraded ticketing systems. This can be investigated further in the Detailed Business Case.

12.2 Market capability

The specification above can be delivered by known local and national suppliers. There is also potential to attract larger operators from other parts of New Zealand or even Australia given the scale of development planned within the Masterplan programme and the associated developments in the district.

The development and operation of the parking buildings would appeal to a number of companies who already operate their own parking buildings in New Zealand, some of which are operated in partnership with local government.

The required technology to support parking system management and the wider needs of the masterplan could be supplied by many companies with experience in this area and a presence in the New Zealand. It would make sense to leverage the work already occurring in this area by other local governments, including ORC and their progress in developing solutions around '*movement/transport as a service'* solution. It would also make sense to form a partnership with an industry body such as ITS (Intelligent Transport Systems) New Zealand to help inform system design and to connect with the right market capability.

While there appear to be many organisations that could develop the required supporting systems, an early and very high-level market scan has identified that the following companies appear to have the capability to provide this type of service:

- Smart Parking Technology
- Frog parking
- Global Parking Systems
- Global integrated systems
- Numerous other suppliers as shown on the NZ Parking supplier web page http://www.nzparking.com/directory/suppliers/

12.3 Implementing organisations

The following organisations will play a role in implementing the commercial aspects of this project.

- The proposed Transport Alliance (see the Management Case) will play a role at a governance level, ensuring the project activities are coordinated with the wider Masterplan and the related activities occurring in the district.
- QLDC will manage the procurement process using their existing policies and procedures.
- QLDC may benefit from establishing a Commercial Team to coordinate the required professional services advice and activities (legal, planning, project management, business case, economic, etc).
- NZTA and ORC will have an interest and may play a role in the development of specifications for and development of the supporting technology solutions (through providing guidance to the selected developer).
- NZTA and ORC will also have an interest in the Park and Ride facilities and the role they play in supporting uptake of public and passenger transport.
- Suppliers will be selected to play a role in the development of the Detailed Business Case, such as professional and technical services firms and they will play a role as partners to QLDC and potential advisers to the proposed Alliance.
- External partners will also be selected to deliver the required buildings (and potentially operate them as well), the technology supporting the parking system and supporting elements (such as changed signage or ticketing hardware.

12.4 Procurement Strategy

The procurement strategy can be discussed in two phases.

The first phase is to support the development of a Detailed Business Case to progress the parking programme to a point where an investment application can be produced and QLDC can engage with the market. This first phase can follow Council's standard procurement processes, with agreed set of skills and services to be procured to guide the project through the development of a detailed parking business case, as part of a wider Masterplan programme. At this stage it may be useful for QLDC to engage commercial advisers to provide objective guidance on the best way to develop and operate a commercial parking facility. This would include the best structure, contracting arrangements and how to manage pricing and competition in the current and future market.

The second phase needs to enable QLDC to procure services and products to deliver the preferred programme through to 2050. The second phase will aim to enable the private sector to do as much as possible through the development of the new parking buildings and the wider technology solutions. Where appropriate, other services may be targeted to support other programme elements such as development of Park and Ride sites, changed or improved signage (such as digital signage to support the management systems) or larger enforcement resources. A Commercial Team assembled by QLDC would play a key role in shaping this strategy and helping the Council to connect with the right capability in the market.

12.5 Consenting Strategy

The consenting strategy will need to be developed through advice from QLDC planning and legal advisers. This can be progressed at a programme level during the detailed business cases. In the case of developing

the new parking buildings, some of these requirements may be progressed by and owned by the selected development partner. There may be some shared risk during this process, but the onus will be on the development partner to proactively plan and deliver against the required consents to the satisfaction of the Council.

12.6 Property acquisition

The required property acquisition should follow the standard QLDC and appropriate investor partner processes. As QLDC own the sites required for the new parking facilities, the next logical step will be to work through land use designations to ensure any required use changes can be proactively managed.

12.7 Implementation timing

The masterplan programme implementation schedule shown in section 9 will guide the timing for the commercial activities. With this in mind, it will be important move swiftly to agree a process around significant lead time items, such as detailed business case development, funding approvals, procurement, designation and consenting.

12.8 Contract Management

The form of contracts to be used should be determined during the detailed business case planning. At this stage, it is assumed that a development partner arrangement may be beneficial given the wider opportunities across the Masterplan, such as the development of the new Council Office and the structures and facilities to be delivered around the new public transport facility and the many public realm upgrades.

12.9 Risk allocation

Risk sharing should occur when the private sector is better placed to manage it than QLDC and its partners. During the detailed planning phase, QLDC will retain the programme risk, as well as owning the ongoing risk associated with managing the on street parking inventory and supporting systems.

However, the private developer that is engaged to build and operate the desired off-street parking buildings would take on the risk around their ongoing operations. QLDC may wish to retain control of pricing in these buildings and through this arrangement, an agreement may need to be sought to confirm how this affects operational risks for the operator.

As the programme progresses, it will be important to identify how risks are allocated for the technology aspects of the programme and outline risk management strategies in a detailed plan. This should be tested in the detailed business case, including identifying the opportunity for risk sharing in each of the following areas:

- design
- construction
- transition and implementation
- availability and performance
- operating
- revenue
- termination
- control
- financing
- legislative
- residual value.

13 Outlining the Financial Case

The Financial Case develops the financial model to be used for the preferred programme. It outlines the costs of the proposal, its proposed funding arrangements and an indication of its affordability.

13.1 Indicative costs

The costs captured to date are high order and they should be refined during the Detailed Business Case development. The emphasis has been on identifying capital costs as much as possible to inform the QLDC Long Term Plan, while also providing guidance to the NZTA Land Transport Plan (where relevant).

The current cost breakdown is shown below.

Table 24: 10-year programme costs by type

Cost type	10-year total
Detailed Business Case/ Parking Strategy	$100,000
Parking Interventions/Technology (Phase 1)	$5,425,000
Parking Interventions/Technology (Phase 2)	$8,298,000
Parking Buildings (may be funded privately)	$42,920,000
	$56,743,000

It is worth noting that after removing the privately funded new parking buildings, the estimated cost to QLDC for this programme is in the order of $14.1 million.

Table 25: Programme cost forecast

	10-year total	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Detailed Business Case/ Parking Strategy	$100,000	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -
Parking Interventions/Technology (Phase 1)	$5,425,000	$ -	$ 2,491,000	$ 2,935,000	$ -	$ -	$ -	$ -
Parking Interventions/Technology (Phase 2)	$8,298,000	$ -	$ -	$ 984,000	$ 1,743,000	$ 3,584,000	$ 172,000	$ 816,000

	10-year total	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Parking Buildings	$42,920,000	$ -	$ 9,800,000	$ 0,530,000	$ 2,590,000	$ -	$ -	
Totals	**$56,743,000**	**$ 100,000**	**$ 2,291,000**	**$ 4,449,000**	**$ 4,333,000**	**$ 3,584,000**	**$ 1,172,000**	

13.2 Indicative revenues

13.2.1 On-street paid parking

On street parking revenues will not form a significant part of the financial considerations for this case. But they need to be identified and separated out from district wide parking revenue to inform the detailed business case development.

13.2.2 New Parking Buildings

Rationale has developed an indicative revenue model around new parking buildings to help understand the commercial impacts and benefits. The model is designed to look at pricing levels, NPV (net present value) amounts over set periods, payback periods and the benefit cost ration over a longer (30 year) term.

The methodology for this analysis reflects the recommended approach from MRCagney in their QLDC Transport Chapter Advice (parking). This report is included as Appendix 13 for reference. This methodology, as outlined in this report, is explained below.

In 2017, in an IPENZ research paper, Peter Nunns of MR Cagney developed a methodology for comparing the costs and revenues from parking facilities, which can be adapted to the Queenstown Town Centre context. In general, the key inputs required for an analysis of commercial viability include:

Parking supply costs:

- Updated construction costs for multi-storey parking facilities, which can be sourced from QV Cost builder.
- Current land prices in central Queenstown, which can be obtained from QLDC from their latest ratings valuation.
- Parking operation and maintenance costs: it was assumed to be $1000/space/year in the IPENZ paper, but this can be revised for the Queenstown Town Centre context.

Parking revenues:

- Hourly or daily parking tariffs in Queenstown Town Centre, sourced from QLDC or sources like Parkopedia.
- Parking occupancy data sourced from annual QLDC surveys.

This model has been used to look at the commercial revenues from two of the potential new parking buildings. The pricing baseline uses current levels in the Man Street car park.

Parking Building - Ballarat St (350 parks)

- Investment cost = $25 million (approximate)
- Operating cost per annum = $500,000

Table 26: Ballarat Street Car Park modelling

Option	Hourly Parking Price	NPV @ Yr 10	NPV @ Yr 20	NPV @ Yr 30	BCR @ Yr 30
Current Pricing	**$ 3.00**	**-$ 13,904,617**	**-$ 8,200,645**	**-$ 5,301,035**	**0.8**
Double Pricing	$ 6.00	-$ 1,132,584	$ 12,060,577	$ 18,767,311	1.8
Triple Pricing	$ 9.00	$ 11,639,449	$ 32,321,799	$ 42,835,656	2.8
Halve Pricing	$ 1.50	-$ 20,290,634	-$ 18,331,256	-$ 17,335,208	0.3
10 Yr Break Even	$ 6.27	$ -	$ 13,857,279	$ 20,901,617	1.9
20 Yr Break Even	$ 4.21	-$ 8,735,190	$ -	$ 4,440,528	1.2
30 Yr Break Even	$ 3.66	-$ 11,091,587	-$ 3,738,126	$ -	1.0

Parking Building - Boundary St (242 parks)

- Investment cost: $17.8 million
- Operating cost per annum = $500,000

Table 27: Boundary Street parking building modelling

Option	Hourly Parking Price	NPV @ Yr 10	NPV @ Yr 20	NPV @ Yr 30	BCR @ Yr 30
Current Pricing	**$ 3.00**	**- $ 10,975,515**	**-$ 7,582,492**	**-$ 5,857,652**	**0.7**
Double Pricing	$ 6.00	- $ 2,144,566	$ 6,426,695	$ 10,783,890	1.6

Option	Hourly Parking Price	NPV @ Yr 10	NPV @ Yr 20	NPV @ Yr 30	BCR @ Yr 30
Triple Pricing	$ 9.00	$ 6,686,382	$ 20,435,883	$ 27,425,432	2.6
Halve Pricing	$ 1.50	- $ 15,390,989	-$ 14,587,086	-$ 14,178,423	0.2
10 Yr Break Even	$ 6.73	$ -	$ 9,828,780	$ 14,825,233	1.9
20 Yr Break Even	$ 4.62	- $ 6,195,752	$ -	$ 3,149,606	1.2
30 Yr Break Even	$ 4.06	- $ 7,867,112	-$ 2,651,402	$ -	1.0

The analysis above demonstrates how parking buildings could represent an attractive offer to an external investor if QLDC chose to engage the market to supply them.

13.3 Funding arrangements

The funding arrangements proposed for this programme will feature a mix of sources and opportunities. Current assumptions are included below.

- A private operator may be engaged to fund the new parking buildings establishment and operations through a development agreement.
- The Park n Ride developments will be eligible for a NZTA subsidy given their role in supporting a public transport system. It will be important to consider where any of the proposed parking changes ply this type of role and how this will enhance the strength of the funding application.
- QLDC are expected to fund on-street and inventory management changes.
- At this stage, QLDC are assumed to be funding the technology programme, with potential partners in NZTA and ORC.
- There may be some opportunity for this programme to benefit from an investment from Central Government, particularly where it can be demonstrated to address issues and provide significant benefits in Tourism. The Tourism Infrastructure Fund may provide support in this area and further work should be done to test eligibility.

13.4 Affordability

There is a wider investment value in this programme that supports realising benefits that go beyond parking. The parking programme will play a critical role in supporting improved access to the Town Centre, a more people-centric area and shift towards walking to town from the fringes.

As part of the wider Masterplan programme, it is assumed that QLDC cannot afford to fund this programme without support and using innovative arrangements to outsource investment (such as engaging a partner to develop and operate the new car park buildings).

14 Outlining the Management Case

The Management Case seeks to identify what needs to be done, why, when, how, and by whom with measures in place to identify and manage any risks. Given this is an indicative business case, some areas will require further work during the detailed business case phase to further define a detailed implementation approach.

The Management Case considers:

- governance and management
- project management and assurance
- risk management
- communications and stakeholder management
- benefits measurement.

14.1 Programme governance and reporting

A highly effective governance structure has been used to guide the Masterplan programme to date. This will need to evolve as the programme moves into detailed planning. It will be important to maintain strong governance and direction as the project transitions through the detailed planning and delivery stages.

Given the scale of the wider Masterplan programme and the developments planned for the district, a logical discussion has emerged between the investor partners around a more unified approach to planning and delivering through an integrated approach.

As reflected in the recent Queenstown Integrated Transport Programme Business Case (QIPBC) and the proposed Town Centre Masterplan Programme Business Case (TCMPBC), there is a well-supported assertion that targeted work programmes delivered within a single agency cannot deliver the required solutions effectively.

In the next 10 years, the investment partners (QLDC, ORC, NZTA) are collectively seeking to deliver a significant scale of transport, parking and public realm road reserve projects. The scale and complexity of these plans demonstrate a real need to work in a highly integrated way to ensure that each activity provides support to and gains benefit from other programme actions. Equally, the community and commercial audiences deserve to see a unified plan with a proactive and respectful approach to engagement that is not complicated by varied approaches.

The changes to the investor partners approach is to see each other as partners not stakeholders and applying a multi-customer centric way of system thinking.

With this question in mind, a facilitated workshop exercise was conducted with members of the Transport Advisory Group (TAG) on Wednesday, 5 July 2017. This workshop identified several common challenges within the existing arrangements. These challenges were summarised as:

- delivery at pace with quality outcomes
- gaining multi-party alignment, approvals and funding processes
- Queenstown's isolation and distance from our investment partners
- effective governance
- capacity
- business case capability
- local knowledge
- dispersed skills
- statutory framework.

While this conversation is continuing and no decisions have been made, the structure below demonstrates how this might look in practice.

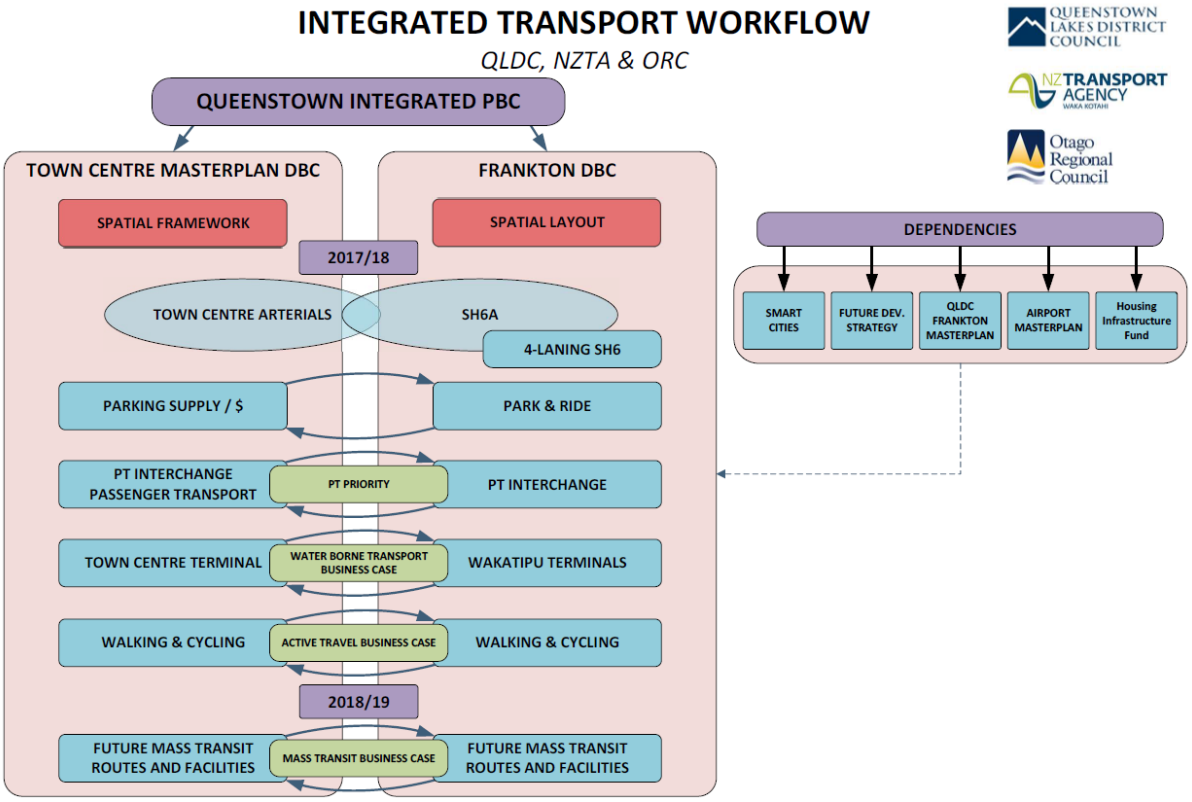


Figure 67: A demonstration of how a planning and delivery alliance could look.

It is suggested that this approach be adopted as quickly as possible to best coordinate the detailed planning for the Masterplan alongside the equivalent process for the Frankton, all in the context of the Queenstown Integrated Programme Business Case.

If this approach cannot be adopted, the existing governance arrangements should be maintained while optimising the interface to the multi-agency Transport Advisory Group.

An incremental approach may also be practical to develop an Alliance-type arrangement during the detailed business case development phase. This discussion is now being progressed by the Chief Executives from QLDC, NZTA and ORC.

14.1.1 Project Management Structure

As a project level, it may also be useful to adopt a standard a localised governance structure for detailed planning and delivery, as shown below. This will need to be tested and refined during the detailed planning phase and as the wider programme collaboration model is agreed.

14.1.2 Reporting Framework

It is expected that formal reporting to QLDC will be on a monthly basis and in alignment with QLDC standards (and NZTA or MBIE standards where they play a significant investment role).

The format of such reporting will be as agreed with the Project Sponsor but is likely to be a consolidated report of all delivery aspects including but not limited to the following topics:

- Executive Summary.
- Project Risks.
- Health & Safety.
- Programme & Milestones.
- Consent & Consultation.

- Design Status.
- Contractor Report.
- Finances.

14.2 Project management and assurance

14.2.1 Project Management Plans

Project Management Plans (PMP) are developed to outline 'how the project will be delivered'.

The PMP typically identifies:

- project's goals and objectives
- scope definition
- key personnel with roles and responsibilities
- delivery programme
- procurement of services
- cost estimating and budget
- risk management including identifying and 'treating' risks
- RMA processes / procedures / compliance
- quality management / assurance
- communications plan including project partners and all key stakeholders
- project closure.

A detailed PMP will need to be developed as part of the Detailed Business Case to inform the transition from planning into delivery and manage the ongoing programme of works.

The PMP is a 'live document', which is continually reviewed and updated over the project life. Significant changes to the project's key deliverables will be documented.

14.2.2 Assurance and Acceptance

There will be key stages and documents that will require formal review and acceptance. These are identified in the table below:

Project Management Plan:	Alliance/PCG review and acceptance required.
Supplier Engagement:	Tender Evaluation Teams to be selected from appropriately qualified personnel with no conflict of interest in the process. Contractor/s will be procured in general accordance with the QLDC Procurement Manual. Qualified tender evaluators to be used as far as possible. Tender Evaluation Recommendation to be submitted for approval in accordance with QLDC procedures and NZTA requirements.
Preliminary and Final Designs / Documentation:	• To follow normal internal review procedures of relevant organisation. • Preliminary and final designs, and documentation to be submitted to Project Manager for approval.
Budget / Cost Estimates:	• To follow normal internal review procedures of relevant organisation. • To be updated monthly with reporting, in particular once construction commences. • Project Manager to review and confirm budgets monthly.

Project Management Plan:	Alliance/PCG review and acceptance required.
	• Any significant deviations to be reported to Project Control Group as appropriate.
Construction:	• QA requirements to be outlined in contract documentation. • Contractor to submit QA plan prior to commencing physical works – to include QA procedures for construction as well as identification and rectification of faults.

14.3 Risk Management

A detailed risk register has been developed to address current and future risks as the Masterplan Programme moves through the detailed planning and delivery stages. This is included as Appendix 7. This register and management plan has been updated through a number of recent workshops. It is recommended that it be updated every month to manage and assign risk responsibilities to project partners and again in the delivery phase to recognise the transfer of risk to development and operational contractors.

14.4 Change Management

A Change Management Plan needs to be developed to demonstrate how the changes that the project will introduce can be managed in an integrated and proactive way. This plan will build on the high level of stakeholder engagement and community ownership developed to date and focus on how the impacts on people and practices will be managed through a well-coordinated transition.

14.5 Parking Management Strategy

It is proposed that a new QLDC Parking Management Strategy will be developed as part of the detailed business case. This will need to align with QLDC organisational strategies and capture best practice learnings and approaches from similar districts across New Zealand.

14.6 Communications and Stakeholder Engagement

It will be important to continue the level of transparency that has been a big feature of the Masterplan programme to date. The extensive engagement undertaken so far has been a huge contributor to the successful development of the programme options and the feedback received recently will help shape the options as they move into the detailed planning phase. Importantly, providing plenty of advance notice ahead of changes will be critical, particularly around parking pricing changes and shifts from free to paid parking for expanded areas.

A formal consultation period is scheduled for March 2018 and this will focus on the full draft masterplan programme following the refinement that is set to occur between October 2017 and March 2018.

As done during the indicative business case development, leveraging governance and stakeholder groups will be a key part of informing and engaging a wide audience, alongside regular main stream updates (such as the QLDC website and monthly newsletter). Key groups to regularly inform and gain guidance from will be:

- the proposed Alliance
- QLDC Executive Leadership Team
- District Councillors
- the Transport Advisory Group
- a Stakeholder Adviser Group (in its current or revised form)
- community and business groups noted in this project's stakeholder matrix.

14.7 Benefits Management

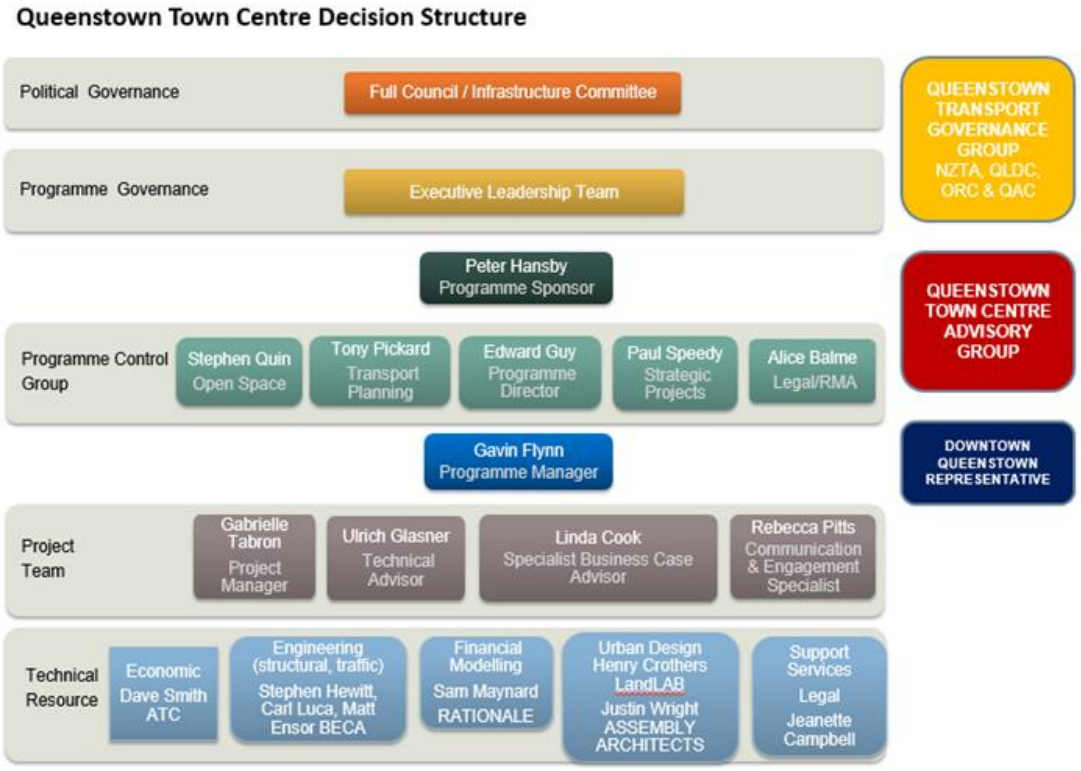
The benefits management plan for this project should be further informed through the detailed business case. Specifically, the KPIs and associated measures should be tested and updated, alongside identification of agreed benchmarks and measurement intervals. The benefits tracking should also form part of the ongoing reporting regime for the Masterplan programme.

14.8 Next Steps

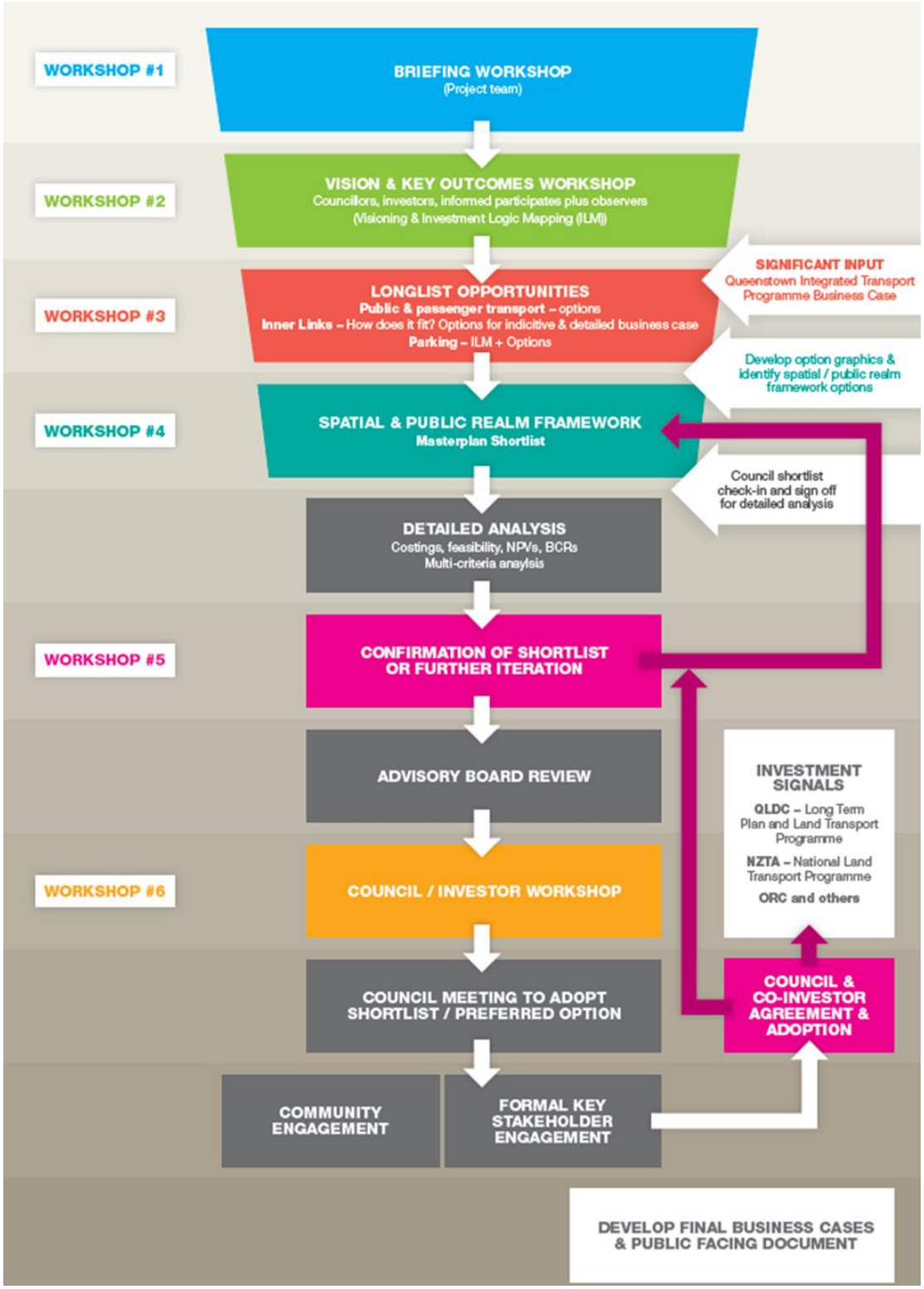
This indicative business case seeks approval from decision-makers to take the project into the detailed planning phase. This detailed phase will build on the work done to date to confirm:

- strategic alignment
- learnings to date from recent parking changes
- value for money decisions
- robust commercial strategies
- agreed funding arrangements
- agreed management strategies that clearly outline how the project will be delivered.

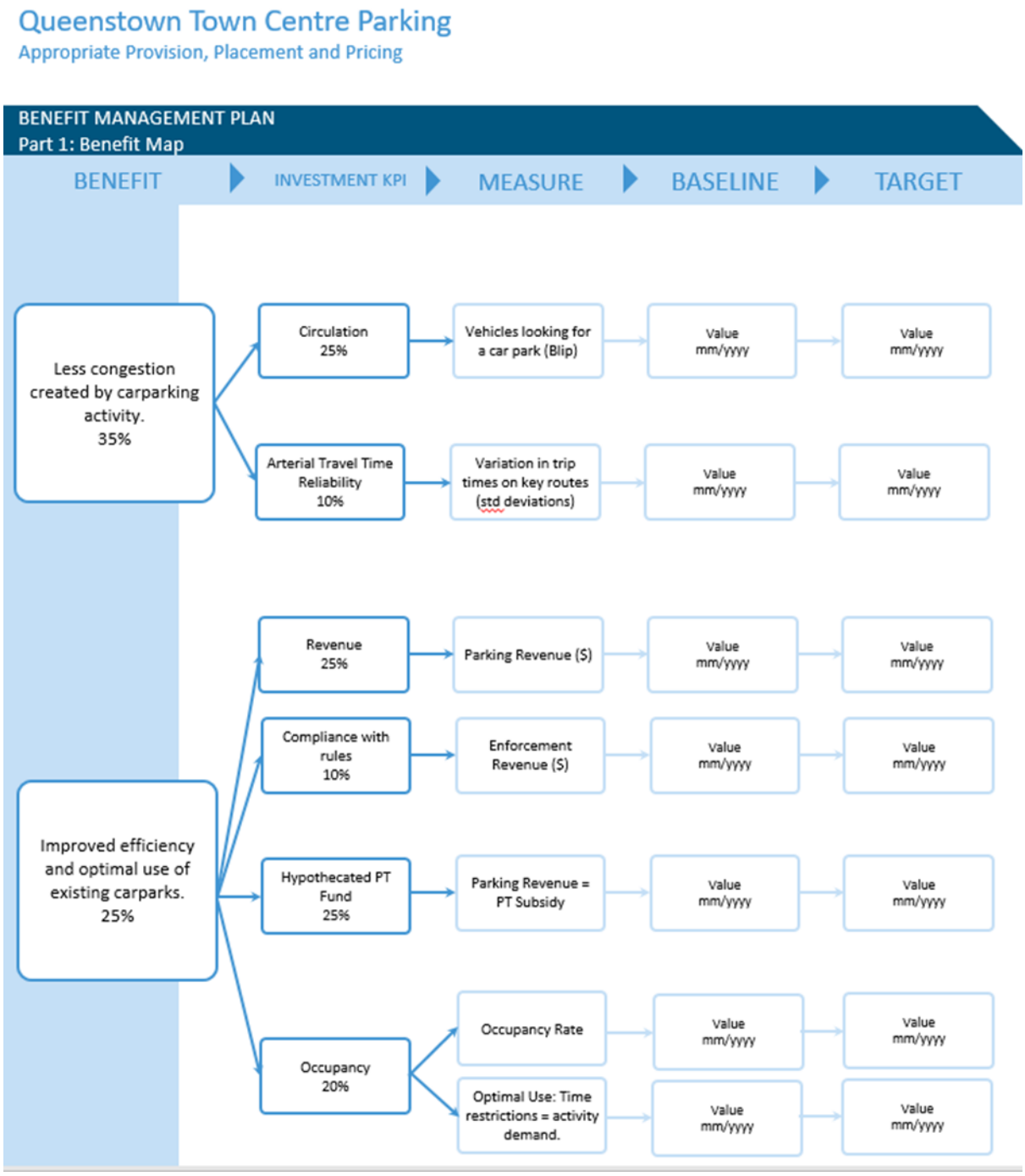
Appendix 1: Queenstown Town Centre Decision Structure



Appendix 2: Queenstown Town Centre Masterplan – Project Flow Diagram



Appendix 3: Town Centre Benefits Mapping

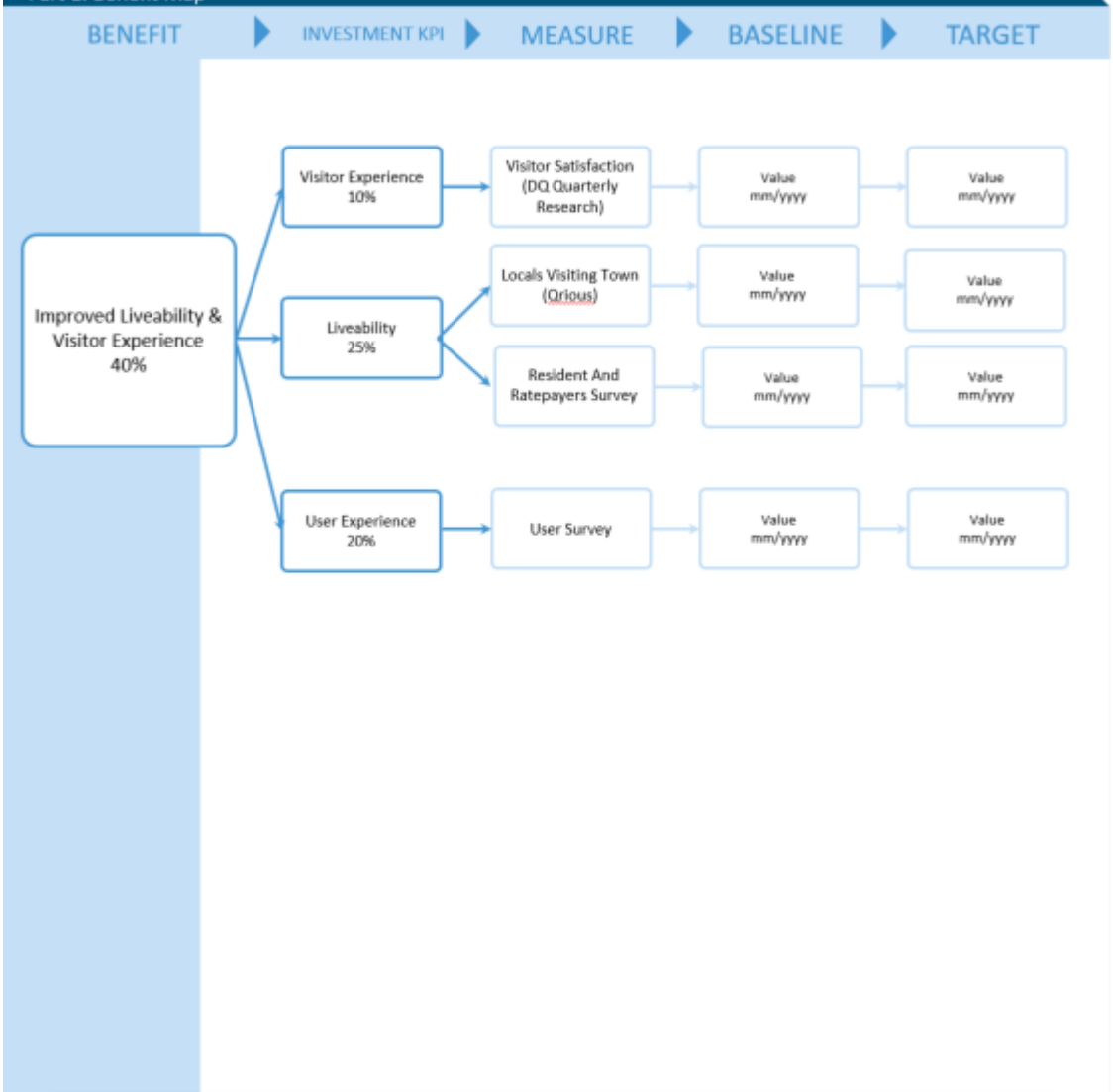


QUEENSTOWN LAKES DISTRICT COUNCIL

Queenstown Town Centre Parking

Appropriate Provision, Placement and Pricing

BENEFIT MANAGEMENT PLAN
Part 1: Benefit Map



RESPONSIBILITY FOR DELIVERING THE BENEFITS		
Name	Position	dd/mm/yyyy

Investor: Peter Hansby
Facilitator: Edward Guy
Accredited Facilitator: No

Version no: 1.0
Initial Workshop: 29/03/2017
Last modified by: Edward Guy 27/04/2017>
Template version: 5.0

Appendix 4: Advisory Group Members

Jane Taylor (Chair)

Jane is a professional director and independent hearings commissioner, following a 35-year career in law, accountancy and finance.

She is currently Chairman of New Zealand Post Limited, Landcare Research New Zealand Limited and Predator Free 2050 Limited, and Deputy Chair of Radio New Zealand Limited. She is a Director of Silver Fern Farms Limited, Kiwibank Limited, Hirepool Group Limited and Ontario Teachers' Pension Plan New Zealand Forest Investments Limited, and is a board member of the External Reporting Board (XRB).

Jane holds a LLB(Hons) and a LLM with First Class Honours from Auckland University and a postgraduate qualification in accountancy from Victoria University of Wellington. She is a Chartered Fellow of the New Zealand Institute of Directors, a Barrister and Solicitor of the High Court, a Member of the New Zealand Law Society and the Resource Management Law Association, and a Member of the Institute of Chartered Accountants in New Zealand.

Jane, together with her family of 5, has been a permanent resident of Queenstown since 2001, and is passionate about what she considers is the best place in the world to live and enjoy.

Jacqui Moir

Jacqui originates from Auckland, New Zealand and has been living and working in Queenstown for the last 8 years. She has raised two children, now both in their twenties

Jacqui has a passion for all things community and absolutely loves her role as Manager at Wakatipu Youth Trust, working with a dedicated team to create and provide a huge array of opportunities for our young people to grow their strengths and potential.

Her passion for young people grew through training and volunteering for two years on the crisis phone lines at Youthline and during studying for a Bachelor of Arts in Sociology followed on by a Graduate Diploma in Teaching.

Through supporting and advocating for youth of the Wakatipu area and celebrating all that they contribute to our community we ensure they feel connected and a valued part of this place they call home and is also an investment in our future as a district as well as any community they choose to be part of in the future.

Steve Wilde

Steve has lived in Queenstown for 20 years. Having spent many years as a journalist for radio New Zealand, he has a broad understanding of the issues facing the area. He has a strong community focus and is involved in several community organisations, including Showbiz Queenstown and was part of a group that raised $3million to rebuild the Queenstown Memorial Centre.

For the past two years, Steve has been General Manager of DowntownQT. He enjoys enjoying the challenge of working with the business community and the Council to ensure the town Centre retains its position economically, socially and culturally - at the heart of New Zealand's number one tourist destination.

Mike Fisher

Mike is an experienced practitioner who has worked for over 17 years in placemaking, urban regeneration and planning projects across New Zealand, Australia and the United Kingdom.

He currently has his own small practice Urban Tacticians based in Christchurch supporting governments, the private sector and community groups on a variety placemaking and planning projects.

Mike has qualifications in Planning (Massey University, New Zealand) and Sustainable Development (Imperial College, London). He is a member of the international Placemaking Leadership Council, the Planning Institute Australia and the New Zealand Urban Design Forum.

Mike is on the board of Te Pūtahi - The Christchurch Centre for Architecture and City Making, and recently served on the Property Council (South Australia) Mainstreets Committee.

Mike presents at various conferences and masterclasses and has lectured tertiary students on placemaking, urban regeneration and planning both in Australia and New Zealand.

Graeme McIndoe

Graeme McIndoe is a Wellington based architect and urban designer, and director of McIndoe Urban Ltd.

He has been involved at the core of projects including the Christchurch Retail Precinct Plan, the Auckland and Wellington waterfronts, Auckland's Unitary Plan, Aotea Square in Auckland and Civic Square in Wellington.

He is a member of several design panels, provides town and city centre and district plan policy advice, design review, and masterplanning including many projects for major institutions and developers.

Current projects include a spatial plan for Petone, parking policy for Lower Hutt City, work on the proposed East West Link motorway connection in Auckland and on the Basin Reserve masterplan in Wellington.

As a specialist urban designer, he takes particular interest in the vitality and success of town and city centres, and the quality of the processes, spaces, connections and design projects that help to deliver great urban outcomes.

Darren Davis

Darren Davis works in the tricky nexus between land use, placemaking and movement. Put simply, there's no point having place without movement to get there and no point having movement with no place to go.

Darren has 25 years' experience in transport and land use, including being a lobbyist, planner, strategist, communicator and consultant. He has been involved in projects ranging from high level strategic policy advice; successfully influencing regional and central government agencies; to on-the-ground involvement in major transport infrastructure and land-use projects; doing public transport service design; carrying out high-level policy and strategy work as well as being a key team member on transit oriented development projects.

Darren is currently Auckland Council's Transport and Land Use Integration Manager as well as being a lead instructor in Simon Fraser University's on-line Next Generation Transportation Certificate programme.

Dean Whaanga

Dean Whaanga is a born and breed Southlander who lives in Bluff with his wife Loureen. They have three boys. "Most of our holidays were spent holidaying in Frankton at the family caravan, swimming in the lake and visiting the town centre, it was very enjoyable and each year we looked forward to the summer there".

Deans tribal affiliations are Ngai Tahu, Rongomaiwahine and Ngāti Kahungunu. He has worked for Telecom as a communication technician, and for the last twenty years has worked in the Maori Tertiary sector and then for his Iwi Ngai Tahu.

Dean is the Kaupapa Taiao Manager for the Murihiku entity 'Te Ao Marama Inc' which is the Ngai Tahu resource management and environmental consultancy for Southland and Central Otago (which is shared with Kai Tahu ki Otago).

Dean brings to the Advisory Group a strong knowledge of Ngai Tahu values and tikanga. He knows the Maori histories and traditions for the Wakatipu area. He has worked in the Maori arts field and enjoys sharing his knowledge with others.

Jay Cassells

Jay is a lawyer with over 30 years' experience in environmental and planning law in Australia and New Zealand. He is the founding director of a film, media and arts company, and a published cartoonist and writer.

A long-time local, Jay is married with two sons who are quite interested to know in what shape the place will be left for them.

Johnny Stevenson

Johnny has lived in Queenstown for over 20 years, but his affiliation with Queenstown goes back 5 generations.

He started the property investment company Westwood Group Holdings back in 1994 and is currently the co-owner of Coronet Property Management. He is on the Chamber of Commerce Board of Directors and serves on the Central Otago Branch NZ Property Council committee.

On a personal level, Johnny is a member of the Shotover 4WD Club, Arrowtown Tennis Club, is a 6-year Motatapu Mountain Bike Veteran and user of NZ Ski's First Aid Team most seasons.

Appendix 5: Comprehensive stakeholder list

Stakeholders and audiences engaged round the Masterplan programme include (but are not limited to):

- Internal (Elected Members, Executive Leadership Team, Staff)
- Local Iwi Groups (Ngai Tahu, Kai Tahu Ki Otago, Te Ao Marama)
- Large Tourism Companies
- Ritchies Connectabus
- Private Developers
- Queenstown Police and NZ Fire Service (soon to be FENZ)
- Department of Conservation
- Wakatipu Mountain Bike Group
- Greypower
- Wakatipu Senior Citizens Association
- Queenstown Airport Corporation
- Taxi Federation
- Disabilities Resource Centre
- Barrier Free NZ
- Wakatipu Interagency Group
- NZTA (key contact: Tony Sizemore)
- Otago Regional Council (key contacts: Nick Donnelly and Rose Dovey)
- DowntownQT
- Chamber of Commerce
- Shaping our Future
- Destination Queenstown
- Queenstown Trails Trust
- Small Community / Residents Associations
- Wakatipu Heritage Trust
- Creative Queenstown
- Queenstown Arts Society
- Showbiz Queenstown
- MP for Tourism
- MP for Clutha Southland
- Ministry for Business, Innovation and Employment
- U3A

Appendix 6: Detailed description and analysis of each shortlisted intervention

Intervention Options	Programme	Description	Implementation considerations – draft only
Real Time Information	Core	Real time information data collection is the base for real-time parking apps and remote parking booking systems. It uses hardware data and software analytics to give live occupancy data. Multiple data sources (on-street and off-street) are merged with smart machine learning techniques. Data can be captured through cameras, in ground loops or individual parking space sensors. This information is then presented to users through apps, websites and electronic variable message signs (VMS) on site. This intervention could be implemented around the town centre zone and along the main arterial (SH6A) into Queenstown.	- Proprietary data collection system including parking sensors and CCTV cameras at each parking zone - Communications cabinet with fibre / power at each parking zone - Operations control centre (use WTOC/CTOC or construct a new TOC in Queenstown) - Regular maintenance of assets
Parking Information, guidance and payment Systems – Apps	Core	Real-time parking apps guide car drivers to available parking spaces. Depending on the complexity of the app, drivers can see parking rates, pay for parking using their mobile and filter by type of parking (e.g. electric vehicles or disabled parking). Wellington, New Zealand has an equivalent of ParkMe called PayMyPark which presently allows parking fees to be paid and is expected to soon be able to find users available car parks. Auckland has a similar system to allow drivers to find carparks by type and pay for parking.	- Development by an independent company to link the real-time information with the end user - App would be available free to encourage uptake - Development and running costs to be covered by QLDC
Remote Booking / Purchasing	Core	Remote booking gives car users the ability to book (via phone or computer) a guaranteed car parking space in advance. It allows parking lots to gain loyal customers and parking prices to vary based on demand.	- Remote booking/purchasing would be a feature of the parking app
Parking information and signage systems	Core	This option will use signage to direct drivers to areas with high availability. This can involve live occupancy data if electronic VMS signs are used.	- Several VMS boards will be required along SH6 and SH6A between the Shotover River and Queenstown to inform drivers what transport options are available as they approach the city (including parking price in the Town Centre and price of Park and Ride) - More specific directions to parking zones to be provided in town centre - Each site will need a comms cabinet, fibre link and regular maintenance - VMS messages will be determined through the operations centre
Mobility as a service	Core	Mobility as a service links all forms of public and private transport (bus, park and ride, taxi, Uber, gondola, ferry etc.) into one integrated service. This is especially beneficial for visitors who may not want to sign up for various independent transport systems.	- Achieve buy-in from both public and private transport providers and overhaul their physical payment systems

Intervention Options	Programme	Description	Implementation considerations – draft only
			- Will require IT systems to be linked along with appropriate websites, advertising, cars etc
Increased number of parking personnel	Core	Increasing Parking Enforcement Services involves increasing the parking warden presence around the city. Increased car park monitoring by wardens encourages parking charges to be paid due to the increased risk of parking fines. Wardens issue parking breach notices and capture photographic and location evidence.	- Recruit and train new parking wardens to increase enforcement
Parking Info. System assisting enforcement	Core	Wireless vehicle detection can ease parking ticket enforcement by allowing parking wardens to be notified of occupied car parking spaces that have not been paid for or that will shortly run out if time. Parking occupancy sensors involve 'paperless' parking tickets where each parking space has a corresponding number and drivers enter and pay for that parking number for a specific length of time. This system can be linked to the real-time operations system.	- Parking wardens will require new electronic mobile parking devices which can receive real time parking information from the sensors
Increase Parking penalties	Core	Increase penalties for infringements to provide increased incentive to comply with parking restrictions (Current legislation controls parking infringement penalties across NZ) Would require the current legislation to be changed.	- Changes to Legislation to allow increased penalties - Public consultation - Integration with enforcement
Tourist Information	Core	This option involves improved signage / parking information distribution and gives tourists better information on the parking and transport options around Queenstown.	- Improved parking information available at tourist information, including staff training, flyers and posters
Free Maps	Core	Maps of city parking and Park and Ride, with information on the type of parking (e.g. best places to park camper vans). Free physical paper maps can be distributed at the airport, information centre, hotels and other popular destinations around Queenstown.	- Production and distribution of maps by communications team
Website	Core	Maps of city parking and Park and Ride, with information on the type of parking - on local council websites and/or Google Maps (e.g. best places to park camper vans). Information can include current available space and preferred parking locations for different user types, as well as information on public transport and park and ride services if applicable.	- Communications team to produce content for the website - IT development and maintenance of website - Website can be linked to other Queenstown, Airport, Airline and Car Rental websites
Airport/Hotel Marketing	Core	Encouraging desirable user behaviours on first arrival. Making information available about parking within the Town Centre, park and ride locations, biking facilities and taxis to decrease the number of cars that enter the CBD. This can be in the form of information flyers, advertisements on television screens etc.	- Production of flyers by communications team Distribution throughout the Queenstown regions hotels and airport

Intervention Options	Programme	Description	Implementation considerations – draft only
Workplace and School travel plans	Core	Work alongside key workplaces and schools to develop travels plans for staff and students. Encourage them to use public transport, park and ride or car-pooling options where possible, or educate them on the most appropriate parking options.	- Staff to conduct workshops with the workplaces / schools to understands their needs - Communications team to produce material - May need to be updated every couple of years to reflect changes to the transport network
Increasing Parking Charges - Encourage mode shift	Core	Increasing parking charges substantially could be a catalyst for encouraging a mode shift for both commuters and visitors. These will make options like Park and Ride and buses more appealing, and decrease the parking demand in the town centre. This will ensure that parking is available for those who are prepared to pay.	- Only limited implementation if the parking system moves to an electronic system - If the parking remains on physical signs the displayed prices will need to be updated
Increasing Parking Charges - Optimise occupancy rate	Core	To maintain an optimal occupancy rate of 85% parking charges can be adjusted to cause a small number of price sensitive users to shift away from free / low cost parking options.	- Limited implementation if the parking system moves to an electronic system - If the parking remains on physical signs the displayed prices will need to be updated - This would require all large car parks to be electronically controlled
Flexible Parking Charges	Core	Flexible parking charges can be used to determine where people park depending on the time of day and demand. Parking can be cheaper early in the day on the fringes of Queenstown to encourage commuters to park outside the city, leaving the central areas free for visitors and shoppers during the day.	- Implementation of electronic parking control which will link with the real-time operations centre Electronic payment system and display at every parking location, with the appropriate maintenance
Less Free Parking	Core	Reducing the number of free all-day parks in central Queenstown will reduce the demand for parking in central Queenstown. This will push parking demand to free parking on the fringes of Queenstown, freeing up central parking for visitors and shoppers. This may also encourage commuters to take up the Park and Ride / public transport options.	- Existing free car parking locations / spaces to be upgraded to be coordinated with the electronic parking system - Each parking space will need a sensor and each group of parks will need an electronic payment system with communications
Subsidising Public Transport (Hypothecated Fund)	Core	Subsidising public transport can allow for cheaper services that operate more frequently, encouraging existing drivers to use this service. This will have the benefit of reducing the number of vehicles travelling into Queenstown and less demand for parking in the town centre. This funding could come free increased parking charges or government / council support.	- Legal team to write a business case to be put forward to the council / government - Associated negotiations to determine an appropriate and transparent subsidy
Variable charges	Core	Parking charges vary based on length of stay and time of parking to provide the optimal parking supply and promote public transport usage	- Implementation of electronic parking control which will link with the real-time operations centre - Options to increase standard parking charges based on the length of stay to deter long stay parking. The longer you stay the more the parking would cost. - Electronic payment system and display at every

Intervention Options	Programme	Description	Implementation considerations – draft only
			parking location, with the appropriate maintenance
Maximum/minimum parking standards (District Plan)	Core	The current District Plan outlines the number of car parks required for each type of activity (residential, commercial, special use etc.) within each zone. It also specifies the physical car park design (size, slope, accessibility etc.). These parking regulations will need to be reviewed to ensure they are aligned with what the parking strategy is striving to achieve, and technically they specify the correct technology (sensors etc.) to allow the real-time monitoring, demand management etc. to take place.	- Update the District Plan to reflect the outcomes of the Queenstown Masterplan in terms of parking Supply strategy for each precinct - Review of district plan (Council / consultant time) - Public consultation of changes - Ongoing review of changes by Council (KPIs: parking occupancy, revenue, congestion etc.)
Ride share parking allocations	**Core**	This intervention option involves dedicated car parking spaces in on and off-street parking facilities. In some countries, city bylaws exist which allow shared vehicles to use 'resident only' and 'no parking except with permit' areas. This intervention could be applied to car parks within the town centre zone.	- Selected car parks to be re-allocated as ride-sharing parking locations - Appropriate identification of carpooling vehicles (sticker on vehicle system or electronic system)
Demand vs Inventory Review - CALM (optimisation by type)	Core	Perform parking surveys. Parking surveys can give data on the demand for parking, the type of car drivers (visitors versus commuters) and their average parking time lengths, and the capacity and use of existing parking facilities. Parking surveys can investigate the area around a particular neighbourhood or the entire Queenstown region. This information will allow the real-time parking operations to efficiently use what parking is available. Parking surveys can help determine where special parking spaces (e.g. car sharing or disabled parks) are needed and parking payment structure based on demand. This solution does not necessary encourage behaviourally changes in car users as it runs the risk of solving the problem of parking rather than a higher-level desire to change people's transport mode.	- Parking survey to be performed along with a driver survey to determine the user type. This information will then need to be analysed and reported on.
Reduce on street car parking in historic core - Pedestrianisation	6	Reducing the car parks in the town centre will create a safe environment for pedestrians and enhance the feel of the area in a similar way to the existing arrangement at Beach Street and Marine Parade. This will push parking into the fringes of Queenstown, which will make it difficult for shoppers and visitors to find parks in the appropriate places. This will need to be supported by increased parking capacity on the fringes along with efficient public transport.	- Consultation will have to be undertaken to inform the public - Once the locations have been approved the line marking and signage will need to be removed, along with the installation of trees / bollards to prevent cars from parking in the future.

Intervention Options	Programme	Description	Implementation considerations – draft only
Reduce Free All-Day Parking - Area of Influence	Core	Reducing the number of free all-day parks in central Queenstown will reduce demand. This will push parking demand to the fringes of Queenstown where parking remains free, freeing up central parking for visitors and shoppers. This may also encourage commuters to take up the Park and Ride / public transport options.	- Upgrade free parks to operate with the electronic parking system. Each parking space will need a sensor and each group of parks will need an electronic payment system with communications.
Resident Parking Schemes	6	Resident parking schemes are designed to give priority parking to residents, meaning they do not have to compete with commuters or visitors for parking spaces. Each household would be given a number of parking permits, enabling them to park in their neighbourhood only between 8.30am and 5pm. Outside of these hours the parking can be made available to all users if there is space available. This will result in commuters and visitors struggling to get a car park in certain areas of central Queenstown during the middle of the day, encouraging them to use park and ride or public transport options along with public car parking.	- Appropriate documentation of all households in the affected areas and their associated parking permits - Signage and line marking - Additional number of parking wardens to monitor the resident parking areas
Increase off-street parking	6	There is potential to increase the parking capacity at some existing open air off street car parks (Ballarat Street, Boundary Road etc.) by maximising the spaces available. This could be achieved by marking out individual car parks to the Queenstown District Plan minimum standard to ensure space is used as effectively as possible.	- Survey of existing off-street car parks to determine their existing size and car park allocation - Engineer to determine if more car parks can be added - If this is not possible then new car park sites will need to be built on the fringes with the appropriate land purchase, site preparation, parking sensors, communications link and electronic payment system
Stanley Street - Building 47-49 Stanley Street	Building option 1	Large new car park on the fringes of Queenstown will provide additional capacity close to town, whilst enhancing the pedestrianisation of the urban centre by reducing traffic and circulation. This parking building can easily incorporate real time operations to help guide users to available locations and vary price depending on demand. This building may require an arterial road to allow vehicles easy access to the facility. This could be achieved by building on the site of a large existing car park (e.g. Ballarat Street). The District Plan may impose a maximum height of 12m which may present a challenge if the building is to remain above ground.	- Approval of the QLDC and to confirmation that the new District Plan can allow a new car park building - To be designed to have capacity monitoring and VMS communication capability - Option to work with a private car park provider such as Wilson parking
Ballarat Street- Building 53-57 Ballarat Street	Building option 2	Large new car park on the fringes of Queenstown will provide additional capacity close to town, whilst enhancing the pedestrianisation of the urban centre by reducing traffic and circulation. This parking building can easily incorporate real time operations to help guide users to available locations and vary price depending on demand. This building may require an arterial road to allow vehicles easy access to the facility. This could be achieved by building on the site of a large existing car park (e.g. Ballarat Street). The District Plan may impose a maximum height of 12m which may present a challenge if the building is to remain above ground.	- Approval of the QLDC and to confirmation that the new District Plan can allow a new car park building - To be designed to have capacity monitoring and VMS communication capability - Option to work with a private car park provider such as Wilson parking

Intervention Options	Programme	Description	Implementation considerations – draft only
Cemetery Road Building **4 Cemetery Road**	Building option 3	Large new car park on the fringes of Queenstown will provide additional capacity close to town, whilst enhancing the pedestrianisation of the urban centre by reducing traffic and circulation. This parking building can easily incorporate real time operations to help guide users to available locations and vary price depending on demand. This building may require an arterial road to allow vehicles easy access to the facility. This could be achieved by building on the site of a large existing car park (e.g. Ballarat Street). The District Plan may impose a maximum height of 12m which may present a challenge if the building is to remain above ground.	- Approval of the QLDC and to confirmation that the new District Plan can allow a new car park building - To be designed to have capacity monitoring and VMS communication capability - Option to work with a private car park provider such as Wilson parking
Memorial Street Building **1 Memorial Street**	Building option 4	Large new car park on the fringes of Queenstown will provide additional capacity close to town, whilst enhancing the pedestrianisation of the urban centre by reducing traffic and circulation. This parking building can easily incorporate real time operations to help guide users to available locations and vary price depending on demand. This building may require an arterial road to allow vehicles easy access to the facility. This could be achieved by building on the site of a large existing car park (e.g. Ballarat Street). The District Plan may impose a maximum height of 12m which may present a challenge if the building is to remain above ground.	- Approval of the QLDC and to confirmation that the new District Plan can allow a new car park building - To be designed to have capacity monitoring and VMS communication capability - Option to work with a private car park provider such as Wilson parking
Gorge Road Building **Gorge Road (Warren park)**	Building option 5	Large new car park on the fringes of Queenstown will provide additional capacity close to town, whilst enhancing the pedestrianisation of the urban centre by reducing traffic and circulation. This parking building can easily incorporate real time operations to help guide users to available locations and vary price depending on demand. This building may require an arterial road to allow vehicles easy access to the facility. This could be achieved by building on the site of a large existing car park (e.g. Ballarat Street). The District Plan may impose a maximum height of 12m which may present a challenge if the building is to remain above ground.	- Approval of the QLDC and to confirmation that the new District Plan can allow a new car park building - To be designed to have capacity monitoring and VMS communication capability - Option to work with a private car park provider such as Wilson parking
Skyline (350 parks) - upgrade existing	Core	Existing car parks can be upgraded to allow coordination with the real-time operating system. This can include smart entry gates with RFID, parking availability/capacity monitoring, variable pricing through electronic payment systems etc.	- Investigation and verification of existing car park technology - Upgrade of car park with the necessary technology to enable communication with the VMS around availability and variable pricing
Ballarat Street – upgrade	6	Existing on-grade car parks can be upgraded to allow coordination with the real-time operating system. This can include smart entry gates with RFID, parking availability/capacity monitoring, variable pricing through electronic payment systems etc.	- Investigation and verification of existing car park technology - Upgrade of car park with the necessary technology to enable communication with the VMS around availability and variable pricing

Intervention Options	Programme	Description	Implementation considerations – draft only
Boundary Street – upgrade	6	Existing on-grade car parks can be upgraded to allow coordination with the real-time operating system. This can include smart entry gates with RFID, parking availability/capacity monitoring, variable pricing through electronic payment systems etc. -Boundary St is assumed to have poor ground conditions due to liquefaction potential.	- Investigation and verification of existing car park technology - Upgrade of car park with the necessary technology to enable communication with the VMS around availability and variable pricing
Gardens Parking - change arrangements	6	Existing on-grade car parks can be upgraded to allow coordination with the real-time operating system. This can include smart entry gates with RFID, parking availability/capacity monitoring, variable pricing through electronic payment systems etc.	- Investigation and verification of existing car park technology - Upgrade of car park with the necessary technology to enable communication with the VMS around availability and variable pricing
Athol Street	6	Existing on-grade car parks can be upgraded to allow coordination with the real-time operating system. This can include smart entry gates with RFID, parking availability/capacity monitoring, variable pricing through electronic payment systems etc.	- Investigation and verification of existing car park technology - Upgrade of car park with the necessary technology to enable communication with the VMS around availability and variable pricing
Private Sites	6	Private parking companies such as Wilsons could provide car parking facilities in addition to council sites to meet the parking shortfall. Currently there are only two Wilson Parking buildings.	- Work with private company to allow space for more privately-operated carparks at strategic locations - QLDC to determine and approve land use and condition of consent
PC50	6	QLDC Plan Change 50 (PC50) provides an opportunity to re-zone land for parking and other uses. PC50 will also readdress the shortage of lane zoned "Queenstown Town Centre" under the District Plan. The proposed Queenstown convention centre presents an opportunity to provide additional car parking within the complex.	- Incorporate strategic carpark design in the new convention centre - Investigation into the capacity demand of the convention centre
Bike Parking	6	To encourage commuters to travel into the town centre using bikes, additional bike parking can be created in suitable locations (lake front, gondola, Ballarat street carpark etc.) with security surveillance to deter thieves.	- Construction of new bike storage or rental bike stations all over the town centre to allow easy bike access and parking - Promotion and incentives will be needed to encourage modal shift - Shared biking paths will be required to enable a safe cycling environment - Investigation needed to determine cyclist

Intervention Options	Programme	Description	Implementation considerations – draft only
			numbers and the viability of cycleways in Queenstown tourism.
Commuter	Core	Park and Ride allows commuters to travel into Queenstown to park their vehicle on the outskirts of the city, then utilise public transport to travel into the city centre. This results in a reduction in traffic in the centre of the town and less demand for parking in the centre. A key component of this system is the frequency of the buses between the car park and the city centre (particularly in the AM and PM peak), and how much of a priority buses are given when travelling (bus lanes, limited stops etc.). Park and ride is already being implemented at Queenstown Airport. A commuter park and ride can be implemented at the city limits to capture those entering from Frankton, Arrowtown etc. Car parks could be located in Frankton along SH6A, Lake Hayes, Gorge Road etc.	- Investigation of key bus route with high patronage - Work with Connectabus to set up park and ride areas strategically to capture commuters from outside of town centre
Visitor	Core	A visitor Park and Ride will operate similar to the commuter system. However, frequency of the buses will need to be different (all day rather than just AM and PM peak) with different payment options to discourage all day parking. Different bus destinations (gondola, city centre, hotels etc.) to target visitors travelling into the town centre wanting to park.	- Investigation into key tourism locations and routes to allow Connectabus to set up a circular route using the hop-on hop-off model
Campervan	6	Park and ride aimed at campervan users, reducing campervans in the town centre	- Investigation into key campervan locations
Commuter Demand Management	Core	Management of commuter demand to ease congestion during the day in central Queenstown. Park and Ride services can be provided cheaper for commuters during the AM and PM peaks. To keep the closer Park and Ride locations clear for tourists, more remote locations can be aimed at commuters. The parking technology will guide particular users (commuters, visitor, special etc.) where the most appropriate parking is based on their needs. The VMS boards will guide long-staying commuters to cheaper fringe car parking during the morning peak, which will be assisted by variable pricing. During the day visitors will be guided to central locations and pricing will encourage a fast turnover where needed outside shops.	- Work with Connectabus to allow cheaper commuter cost at certain commuter times - Offer incentives such as daily upper limits and weekly purchase discounts to encourage mode shift - Investigate high patronage times and commuter travel times
Visitor Demand Management	Core	Encourage tourists to utilise the nearby Park and Ride locations to minimise their journey time into the CBD and provide the best possible user experience. In central Queenstown parking, real time information during the day can be used to guide visitors to key destinations (lake front, gondola, retail areas etc.) and the associated car parks.	- Work with Connectabus to provide day passes for park and ride buses - Offer incentives such as cheap multi-day passes and discounts to encourage mode shift - Investigate high patronage times and key tourist locations

Intervention Options	Programme	Description	Implementation considerations – draft only
Shopper / Transactional / Entertainment	Core	Encourage short term shopper parking by altering the pricing structure to create a quick turnover of parking spaces in town centre.	- Investigation of parking requirements for local shopping / transaction and entertainment trips to determine supply requirements and incorporate into parking strategies - Increase the turnover by strictly enforcing short term parking - More enforcement required
Special, Loading, Campervans, Buses, Public Transport, Freight	Core	Provide the appropriate level of special parking to meeting the Town Centre requirements.	- Use parking data, town centre surveys and consultation to determine the appropriate level and location of special parking spaces to meet demand
Pedestrianisation	6	Pedestrianisation involves removing or restricting vehicular access to streets to give pedestrians the right of way, giving them the freedom to move around at will. This can look similar to Mall Street in its current state (no vehicles) or Beach Street and Marine Parade (vehicles are restricted with traffic calming). This can also be achieved by removing all traffic infrastructure to create a shared space area and could be implemented to any street within the central area (e.g. Church Street, Camp Street, Earl Street, Beach Street, Shotover Street). If this was implemented then additional traffic capacity would need to be provided on key arterial routes through the city (e.g. along Shotover Street or Man Street).	- Design, traffic modelling and public consultation - Detailed design - Construction phase (1 year) with phased street closures - Public information distribution
Reduced Infrastructure	Core	Create a walkable / cyclable township. Reducing the infrastructure would involve removing parking pay machines that are dotted along the street network and centralise and provide electronic payment systems.	- Remove parking pay machines
Signage Reduction - Simplification	Core	Remove current proliferation of parking signage and develop a zoned parking scheme with reduce parking signage. This will enhance the town centre from an environmental and visual perspective	- Remove parking signage and introduce parking zones with simple signage and paint marking schemes

Appendix 7: Masterplan Programme Risk Assessment

Queenstown Town Centre Masterplan – Risk Assessment
Rev 4. 04/10/17

No	Risk Event – Description	Causal Factor – Probable Cause	Consequence	Mitigation in place	Intended Mitigation	Risk Score/ Risk Owner
1	Programme Risk: There is a threat that elected members do not approve funding for the preferred option detailed in the Masterplan. (Long Term Plan)	▪ The preferred option does not deliver the best long term strategic objectives for Queenstown. ▪ The preferred option does not meet the Councillor's constituent's requirements. ▪ Councillor's may personally agree with the Masterplan but will not vote it in if they think the public are not happy. ▪ Political appetite to increase rates.	▪ Delay to the approval of the Master Plan ▪ Rework. ▪ Option which is not optimal.	▪ Advisory group engaged to provide assurance to elected members ▪ Regular update workshops held with elected members ▪ Elected members involved in vision and ILM workshop at outset of project.	▪ NZTA Process Gap Analysis to be completed to support Detailed Business Case	▪ L ▪ PH
2	Programme Risk: There is a threat that NZTA do not approve funding for the transport elements of the Queenstown Masterplan.	▪ NZTA are a funding partner. ▪ NZTA object because of the potential impact on their state highways. ▪ NZTA do not accept the business case. ▪ Personnel changes within NZTA.	▪ Funding shortfall. ▪ Project delays. ▪ Rework of the masterplan.	▪ Regular engagement with NZTA at Officer and Executive level. ▪ Obtain NZTA inputs and feedback on preferred option. ▪ Workshop held with NZTA to clarify expectations, roles and responsibilities (16 August 2017). ▪ NZTA now attending weekly meeting as programme partners.	▪ QLDC to evidence benefit of the Project to NZTA.	▪ H ▪ PH
3	Programme Risk: There is a threat that the existing State Highway designation prevents the preferred location of the PT hub being realised due to lack of NZTA support	▪ NZTA have indicated that they are not supportive of the preferred PT hub location. ▪ NZTA have indicated that an obstacle to implementing the preferred option is the existing State Highway designation.	▪ Delay to the implementation of the Master Plan ▪ Funding shortfall. ▪ Rework. ▪ Option which is not the optimal option.	▪ Regular engagement with NZTA at Officer and Executive level. ▪ Obtain NZTA inputs and feedback on preferred option. ▪ Workshop held with NZTA to clarify expectations, roles and responsibilities (16 August 2017).	▪ QLDC to evidence benefit of the Project to NZTA.	▪ M ▪ PH
4	Programme Risk: There is a threat that Otago Regional Council (ORC) do not approve funding for the public transport element of the Queenstown Masterplan.	▪ They do not get support from the various other Councils to support Queenstown's special case. ▪ Lack of funding for subsidy's for public transport. ▪ ORC do not accept the business case.	▪ Funding shortfall. ▪ Project delays. ▪ Rework of the masterplan	▪ Ring-fence as opposed to separate funding. ▪ Regular engagement with ORC at Officer and Executive level. ▪	▪	▪ L ▪ PH
5	Programme Risk: There is an opportunity to investigate other potential funding streams.	▪ MBIE can provide additional funding (loan or grant). ▪ Private Public Partnership (e.g. parking facilities, transport corridor). ▪ Philanthropic funding	▪ Reduction in Queenstown's rate payers funding. ▪ Ability to undertake other projects not related to the Masterplan.	▪ Investigation by QLDC.	▪ Develop business case for Community heart	▪ No risk rating required ▪ PH
6	Programme Risk: There is a threat that the Masterplan is not aligned to residents and rate payer's expectations.	▪ The public are expecting something that is very innovative and aspirational and the Masterplan does not meet that (considered business as usual). ▪ Fail to demonstrate transport will be fixed.	▪ Do not get approval with LTP. ▪ Decision making is slowed. ▪ Multiple iterations ▪ Project stopped or half finished.	▪ Short-term Project success ▪ Prioritising / programming projects. ▪ Options analysis / timeframe story. ▪ Key themes that disentangle the issues. ▪ Present the future well.	▪ Implement post engagement feedback strategy/	▪ M ▪ PH

No	Risk Event – Description	Causal Factor – Probable Cause	Consequence	Mitigation in place	Intended Mitigation	Risk Score/ Risk Owner
		▪ Public opinion on what's critical / what's 'nice to have' – we are not addressing the big issue. ▪ Perceived inefficient use of money. ▪ Car parks are lost. ▪ Misinformation. ▪ The consultation process has not been effective. ▪ Residents and ratepayers do not believe that the Masterplan will move past the consultation stage.	▪ Environment of distrust. ▪ Re-work.	▪ Good communication / continue to engage. ▪ Updating our stakeholder groups. ▪ Champions /Advisory Group. ▪ Demonstrate transport will be sorted. Sweeteners, release valves.		
7	Programme Risk: There is a threat that the Master Plan does not meet local business expectation.	▪ Loss of road side parking is perceived as making it more difficult for people to access the town. ▪ Diversion of roads reduces visibility of businesses. ▪ Business owners do not support pedestrianisation due to the perceived loss of parking.	▪ Loss of political support. ▪ Project delays. ▪ Project rework. ▪ Reputational damage.	▪ Short-term Project success ▪ Prioritising / programming projects. ▪ Options analysis / timeframe story. ▪ Key themes that disentangle the issues. ▪ Present the future well. ▪ Good communication / continue to engage. ▪ Updating our stakeholder groups. ▪ Champions /Advisory Group – Steve Wilde (Downtown Queenstown engaged).	▪ Implement interim activation to mitigate short term impacts on Camp Street.	▪ M ▪ PH
8	Programme Risk: There is a threat that the Masterplan does not meet the tourism sectors expectations.	▪ The tourism sector are expecting something that is very innovative and aspirational and they perceive the masterplan does not meet that (considered business as usual). ▪ A central bus interchange may detract from the convenience of door to door pick-ups.	▪ Loss of political support. ▪ Project delays. ▪ Project rework. ▪ Reputational damage.	▪ Short-term Project success ▪ Prioritising / programming projects. ▪ Options analysis / timeframe story. ▪ Key themes that disentangle the issues. ▪ Present the future well. ▪ Good communication / continue to engage. ▪ Updating our stakeholder groups. ▪ Champions /Advisory Group. ▪ Quality needs to be of a high standard.	▪	▪ L ▪ PH
9	Programme Risk: There is a threat that the Masterplan does not meet Central Government expectations	▪ The strategic fit for the Masterplan is not well described and does not fit into the Central Governments funding assessment.	▪ Funding shortfall.	▪ Engaged economic expert to evaluate local, regional and national benefits of wider masterplan projects to support funding options (Martin jenkins). ▪ Community engagement underway.	▪	▪ M ▪ PH

No	Risk Event – Description	Causal Factor – Probable Cause	Consequence	Mitigation in place	Intended Mitigation	Risk Score/ Risk Owner
10	Programme Risk: There is a threat that the QLDC Long Term Plan programme is unaffordable	▪ Queenstown has a low rate base and therefore the burden on the ratepayer is too high if additional funding is not able to be sought. ▪ The debt to earnings ratio to fund the long term plan is too high. ▪ The preferred Masterplan option is not perceived to be an expensive aspirational design. ▪ The Masterplan preferred option uses all available QLDC funding. ▪ Too many large/expensive projects. ▪ Lack of support from co-investors.	▪ Increase in transportation issues. ▪ Queenstown CBD cannot accommodate growth. ▪ Shortfall of funding for aspects of the Masterplan which potentially has on flow affects for other projects.	▪ QS work to be undertaken to understand delivery costs ▪ Engaged economic expert to evaluate local, regional and national benefits of wider masterplan projects to support funding options (Martin Jenkins). ▪ Continued engagement at Officer and Executive level with potential funding partners.	▪ Prepare compelling story to potential funding partners ▪ Increase delivery timeframe from 10yrs to 20yrs.	▪ H ▪ PH
11	Programme Risk: There is a threat that the Masterplan budget exceeds the publicly declared budget (for business case)	▪ Scope change. ▪ Scope creep, design development. ▪ Crude budget. ▪ Lack of detailed project estimate. ▪ Lack of implementation of risk management processes ▪ Poor governance.	▪ Reputational damage for QLDC. ▪ Project stopped/delayed. ▪ Reduced scope. ▪ Negative media coverage.	▪ QS work to be undertaken to understand delivery costs ▪ Engaged economic expert to evaluate local, regional and national benefits of wider masterplan projects to support funding options (including Central Government lobbyist). ▪ Continued engagement at Officer and Executive level with potential funding partners.	▪	▪ L ▪ PH/MM
12	Programme Risk: There is a threat that the Masterplan cannot adapt to external influences.	▪ Subdivisions and industrial areas that are in conflict with the Masterplan. ▪ Lack of integration with the built form produces suboptimal outcomes. ▪ The Masterplan outcomes produce a consenting requirement that is perceived to be too onerous.	▪ Reputational damage to QLDC. ▪ Negative media coverage. ▪ Land use activities best suited for the CBD locate within Frankton.	▪ Investigation with planning to look ahead at major infrastructure, land use change. ▪ Spatial plan may require flexibility. ▪ Increased involvement of P and D team in Project Control Group. ▪ Escalated to GM level. ▪ Fortnightly ELT updates	▪ Continue engagement with developers and work through issues. ▪ Progress with refinement of Stage 3 of the Arterials. ▪ Approach land owners of critical sites.	▪ H ▪ PH/TA
13	Programme Risk: There is a threat the market is unable to deliver the magnitude of physical works required to complete the Master Plan with the existing resources in Queenstown	▪ A large number of projects inside and outside of Queenstown. ▪ There are not enough competent and experienced staff within QLDC. ▪ There are not enough consultants and contractors in the region. ▪ Not enough available accommodation for staff bought in from out of the region. ▪ Changes to immigration law.	▪ Project delay. ▪ Higher cost of labour if labour is required to be sourced from other regions. ▪ Rework. ▪ Quality issues. ▪ Reputational damage.	▪ Staging of masterplan undertaken with consideration of delivery constraints ▪ Consideration of Alliance options for design and physical works to be undertaken by CEOs of funding partners. ▪ Workshop held with NZTA to clarify expectations, roles and responsibilities (16 August 2017).	▪ NZTA, ORC, QLDC (and QAC) CEOs to meet to discuss delivery model. ▪ Communicate programme with key partners and market as soon as practicable.	▪ M ▪ PH
14	Programme Risk: There is a threat that five different projects are not well coordinated	▪ Pressures of an aggressive Masterplan time frame. ▪ A lack of communication and project planning. ▪ Silo mentality with a lack of consideration with interdependencies.	▪ One Project can have a detrimental impact on another. ▪ The Masterplan Projects are not well integrated. ▪ Rework. ▪ Limited time for assessing all options.	▪ Masterplan approach determined which coordinates project development. ▪ Engagement of Advisory Group for project assurance. ▪ Staging of masterplan undertaken with consideration of delivery constraints ▪ Partners have been engaged to support coordination of projects.	▪	▪ L ▪ PH

No	Risk Event – Description	Causal Factor – Probable Cause	Consequence	Mitigation in place	Intended Mitigation	Risk Score/ Risk Owner
15	Programme Risk: Funding of Project Connect undermines QLDC's application for Central Governments support for the whole Masterplan Project	▪ Pressure on Council funds to deliver the whole programme. ▪ Staging may undermine the programme. ▪ Deferring Project Connect may impact the Masterplan programme.	▪ Funding shortfall. ▪ Lack of political support.	▪ QS work to be undertaken to understand delivery costs ▪ Engaged economic expert to evaluate local, regional and national benefits of wider masterplan projects to support funding options (including Central Government lobbyist). ▪ Continued engagement at Officer and Executive level with potential funding partners.	▪ Consider PPP for delivery.	▪ M ▪ PH
16	Programme risk: There is a threat that the front-end story which Martin Jenkins are working on cannot deliver a compelling and well substantiated story in a timely manner, reducing our ability to attract wider investment.	▪ The wrong arguments are used. ▪ The arguments do not properly connect with the story to date and the story of Queenstown. ▪ The right data cannot be obtained. ▪ The work being undertaken takes too long and is too late support the masterplan detailed business cases.	▪ The data does not tell a powerful story. ▪ Funding opportunities are lost. ▪ The Queenstown context is not understood.	▪ Detailed briefing of Martin Jenkins on work done to date. ▪ Sharing of strategic documents. ▪ Connection of Martin Jenkins with known providers such as Market view and Qrious.	▪ Ongoing updates between projects. ▪ Review of arguments to validate connection and focus. ▪ Testing of assumptions and methodology once developed.	▪ PH
16	Community Heart: There is a threat that displaced stakeholder's expectations are not met.	▪ Engagement presentations/meetings misunderstood and stakeholder expectations that full facility replacement/upgrade will be provided at QLDC cost. ▪ Stakeholders have unrealistic expectations of facility enhancements. ▪ Underlying landownership and related designations precludes use of preferred land activities.	▪ Community complaints ▪ Adverse local media coverage ▪ Reduction in NGO service provision.	▪ Engagement with affected parties ongoing. ▪ Community Heart Concept Scenarios completed. ▪ Communication of importance of the Community heart to ELT.	▪ Understand uses of site, ownership implications and delivery options. ▪ Progress masterplan	▪ H ▪ PH ▪ Project Team
17	Community Heart: There is a threat that community expectations are not met.	▪ Community have unrealistic expectations of facility provisions and funding. ▪ Permitted land use is still being investigated. ▪ Blockages between underlying ownership and designation ▪ Misaligning our offering with what is required.	▪ Community complaints ▪ Adverse local media coverage ▪ Loss of civic amenities to Frankton. ▪ Rework.	▪ Engagement with community ongoing. ▪ Community Heart Concept Scenarios completed. ▪ Review of ownership and legal implications completed. ▪ Meetings with affected parties ▪ Meetings with potential funding partners ▪ Communication of importance of the Community heart to ELT. ▪ Additional options on alignment of arterial affecting the Memorial Centre investigated.	▪ Understand uses of site, ownership implications and delivery options. ▪ Funding options and sequencing in relation to Memorial Centre replacement to be investigated	▪ H ▪ PH ▪ Project Team
18	Arterials: There is a threat that the option assessment does not meet stakeholder/partner expectations.	▪ Lack of visibility of option assessment; speed at which programme is moving ▪ Changing the status of the highway status. ▪ If there are certain users who can no longer use it. E.g. cyclists. ▪ The preferred option does not provide for future development (hotels, etc.) ▪ Failure to adequately forecast future use.	▪ Option falls over / doesn't getting funding. ▪ Implications on wider network and spatial planning.	▪ Engagement process underway (NZTA, ORC, affected parties) ▪ Workshop held with NZTA to clarify expectations, roles and responsibilities (16 August 2017) ▪ NZTA Process Gap Analysis completed for agreed Indicative Business Case.	▪ Additional engagement needed with NZTA to define roles and responsibilities for delivery and funding ▪ Include PT benefits (ie. gondola landing) within MCA for Stage 2 Option 4.1 to justify as the preferred option.	▪ H ▪ PH/UG ▪ Project team

No	Risk Event – Description	Causal Factor – Probable Cause	Consequence	Mitigation in place	Intended Mitigation	Risk Score/ Risk Owner
19	Arterials: There is a threat that demand exceeds the design capacity sooner than we anticipated.	▪ Assumptions used in the modelling are incorrect.	▪ The public will perceive that we have not solved the problem.	▪ Modelling future demand ▪ Using outcomes for design ▪ Ensure public/passenger transport project is delivered	▪ Plan for rapid transport system	▪ M ▪ Beca ▪ Project team
20	Arterials: There is a threat that giving traffic an alternative route undermines the economic activity of the town centre.	▪ Less traffic through flow the CBD. ▪ People perceive that business will relocate to the alternative route.	▪ Business owners are not supportive of the Arterial Project. ▪ Negative media.	▪ Master planning to incorporate spatial frame work ▪ Engagement process underway	▪ Develop staging plan, shared space design based on public life survey data	▪ M ▪ Project team
21	Arterials: There is a threat that the design does not meet NZTA's and stakeholders/partners expectations	▪ NZTA are a funding partner ▪ Limited engagement during detailed concept development (due to time). ▪ Land requirements are being reduced to make the Project viable.	▪ The option does not receive stakeholder support. ▪ Rework. ▪ Lack of funding. ▪ Implications on wider network and spatial planning	▪ Engagement process underway (NZTA, ORC, affected parties) ▪ Follow NZTA design requirements (best design to achieve objectives and funding).	▪ Additional engagement needed with NZTA to define roles and responsibilities for delivery and funding ▪ Ensure public/passenger transport project is delivered ▪ NZTA Process Gap Analysis to be completed to support Detailed Business Case ▪ One on one engagement with affected property owners needed	▪ M ▪ PH/UG ▪ Project team
22	Arterials: There is a threat that residents will oppose the option assessment.	▪ The proposed route is closer to affected residents and community groups (noise and traffic volume). ▪ Potential land take requirements. ▪ The Whakatipu Rugby Club, the Memorial Hall, RSA may need to be relocated.	▪ The option does not receive stakeholder support. ▪ Loss of political support. ▪ Rework.	▪ Engagement process underway (NZTA, ORC, affected parties). ▪ Rigorous options analysis	▪ One on one engagement with affected property owners/parties needed ▪ ELT agreement that the preferred Stage 2 Option 4.1 will include removal of the protected Wellingtonian tree. ▪ Reconsider shortlisted options (e.g. double T intersection) within the DBC.	▪ H ▪ PH/UG ▪ Project team
23	Arterials: There is a threat that the land may not be able to be purchased at a reasonable cost and in timely manner.	▪ Developers and owners of existing properties ▪ New District Plan changes zoning.	▪ Increased costs. ▪ Project delays. ▪ Rework.	▪ Engagement process underway with affected parties underway ▪ Balance land take withresidual land for development.	▪ Progress one on one engagement with affected property owners/parties ▪ Prepare options/route alignment to eliminate risk	▪ H ▪ PH/UG ▪ Project team
24	Arterials: Environment Court doesn't grant designation or reserve status isn't changed.	▪ Road can't be built as proposed. ▪ Alternative route alignment required ▪ Reserves Act implications	▪ Additional cost ▪ Project delay ▪ rework	▪ Various route options already investigated	▪ Prepare options/route alignment to eliminate risk ▪ Legal advice on designation and options to change reserve status to allow road in order to support	▪ M ▪ PH/UG ▪ Project team

No	Risk Event – Description	Causal Factor – Probable Cause	Consequence	Mitigation in place	Intended Mitigation	Risk Score/ Risk Owner
					decision making around our approach to designation	
25	Arterials: There is a threat of environmental impacts	▪ The gradient of the Thompson Street link may require lake reclamation. ▪ Impacts on Horne Creek.	▪ Opposition from environmental groups and residents. ▪ Ecological impacts.	▪ Design of gradient and round about excess in more detail underway	▪ Additional engagement needed with NZTA and stakeholder groups ▪ Engagement with ORC required to discuss environmental impacts and mitigation	▪ L ▪ UG
26	Spatial Framework: There is a threat that there is insufficient evidence relating to pedestrian movement to support business case.	▪ Lack of pedestrian counts throughout town centre. ▪ Perceived necessity for parking in town centre. ▪ Congestion caused by town centre parking.	▪ Employees and business owners do not support the spatial plan interventions.	▪ Master planning to incorporate spatial frame work ▪ Pedestrian count ▪ Public life survey	▪	▪ L ▪ Project team ▪ Beca
27	Spatial Framework: There is a threat that the Business Community does not support the Spatial Plan.	▪ The on street parking is being replaced by the improved public realm. ▪ The traffic is diverted outside the historic core. ▪ Loss of convenience of foot traffic.	▪ Lack of political support. ▪ Rework.	▪ Master planning to incorporate spatial frame work ▪ Community engagement underway, including with Queenstown Chamber of Commerce ▪ Steve Wilde (Downtown QT) on Advisory Group		▪ L ▪ Project team ▪ Beca
28	Spatial Framework: There is a threat that the Spatial Framework is not endorsed by elected members.	▪ The public do not endorse it. ▪ It is perceived as too ambitious due to cost, disruption and changing too much. ▪ It's not ambitious enough to achieve the objectives of the Masterplan.	▪ Rework. ▪ Project delays. ▪ Project could be discontinued.	▪ Master planning to incorporate spatial frame work ▪ Regular updates to Councillors	▪ NFAR	▪ L ▪ Project team ▪ Beca
29	Spatial Framework: There is a threat that the Spatial Framework does not meet public expectations	▪ Lack of engagement to demonstrate the benefits. ▪ Lack of ownership of the process by stakeholders.	▪ Rework. ▪ Project delays.	▪ Master planning to incorporate spatial frame work ▪ Community engagement underway	▪	▪ L ▪ Project team ▪ Beca
		▪	▪	▪	▪	▪
30	Spatial Framework: There is a threat that we fail to prioritise funding for the Spatial Framework.	▪ Failure to understand integration and sequencing of all projects within the spatial framework.	▪ Projects become siloed. ▪ Inefficient Project delivery.	▪ Master planning to incorporate spatial frame work ▪ Delivery programme/Draft LTP includes Spatial Framework outcomes	▪ Ongoing consultation with P&D to understand and work with private development opportunities.	▪ L ▪ Project team ▪ Beca
31	Spatial Framework: There is a threat that we do not have an operational budget to maintain the various project facilities.	▪ Capital investment may require more operational funding to maintain.	▪ Additional cost to ratepayers over the long term.	▪ None	▪ Consequential operational budget associated with individual projects to be included in LTP programme ▪ Adequate staff and/or contractor resource in place. ▪ Business cases to include whole of life costs.	▪ M ▪ PH/EM ▪ Project team

No	Risk Event – Description	Causal Factor – Probable Cause	Consequence	Mitigation in place	Intended Mitigation	Risk Score/ Risk Owner
	Spatial Framework: There is a threat that operational and maintenance requirements have not been incorporated into the design/costings	▪ Failure to engage with the operational and maintenance team ▪ Failure to consider whole of life costs	▪ Ongoing operational and maintenance issues ▪ Insufficient operational and maintenance budget	▪ Engagement with operational and maintenance team	▪ Consider whole of life costs within the business case	▪ L ▪ PH/EM ▪ Project team ▪
32	Parking: There is a threat of public resistance to the removal of car parking from town centre streets.	▪ Perceived necessity for parking in the town centre. ▪ Resistance to change. ▪ Financial implications for the public.	▪ No support for spatial plan / masterplan, particularly from businesses and locals.	▪ Community feedback recognised in forward planning.	▪ Develop detailed business case for parking.	▪ H ▪ Comms Lead
33	Parking: There is a threat of public resistance due to the perceived high cost of parking.	• Economic model does not represent does not match user expectations.	▪ No support for spatial plan / masterplan, particularly from businesses and locals.	▪ Community feedback recognised in forward planning. ▪ Modelling of the tipping point being used to set charges. ▪ Regular engagement with Councillors and ELT on phasing implementation.	▪ Promotion of alternative modes of transport.	▪ H ▪ BECA
34	Parking: There is a threat that the investment in parking is not financially sustainable.	• User uptake may be lower than predicted. • Income from revenue is low.	▪ We rely on parking revenue to subsidise public transport. ▪ Rates increase.	▪ Robust optioneering through BCA. ▪ Sequencing the provision of major infrastructure (parking buildings) with appropriate decision gateways after each.	▪ Consider PPPs for delivery ▪ Business cases to include whole of life costs. ▪ Include flexibility in design so that parking facilities can be repurposed.	▪ M ▪ BECA
35	Parking: There is a threat that we are unable to secure land for public car parking.	Inability to negotiate successful (viable) purchase.	▪ The preferred option(s) are not viable. ▪ Spatial Framework outcomes are affected. ▪ PPP is preferred option, resulting in less favourable financial outcome for Council.	▪ Robust optioneering through BCA including highest and best use of Council property. ▪ QLDC controlled locations as preferred option.	▪ NFAR	▪ L ▪ BECA
36	Parking: There is a threat that car parking buildings diminish the character of town centre.	▪ Site constraints. ▪ Poorly designed buildings.	▪ Public opposition. ▪ Reduce the amenity of the public realm.	▪ Ensuring good design. ▪ Heeding Advisory Group feedback.	▪ NFAR	▪ L ▪ BECA
37	Parking. There is an opportunity to include enabling objectives within the District Plan.	▪ The transport section of the District Plan is currently under review.	▪ District Plan provisions may support parking options sought.	▪ PCG member inputting to internal project team on D / Plan. ▪ Increase involvement of P&D team in Project Control Group.		▪ ▪ TP
38	Parking: There is a threat that the increasing cost of parking impacts on the accessibly of the town centre by private car.	▪ Lack of use causes a price hike. ▪ Perception that the cost outweighs the benefits.	▪ Public opposition. ▪ Business opposition. ▪ Locals are resistant to paying for parking.	▪ Communication ▪ Ideas to encourage people to the town centre. ▪ Providing subsidised alternative modes of transport.	▪ NFAR	▪ L ▪ BECA
39	Parking: There is a threat that private car parking buildings control car parking prices.	▪ Private car parking may be at a lower rate than public. ▪ Private parking is not regulated.	▪ QLDC are unable to effectively manage car parking supply.	▪ Communicate with private operators.	▪ Increase involvement of P&D team in Project Control Group.	▪ L ▪ BECA

No	Risk Event – Description	Causal Factor – Probable Cause	Consequence	Mitigation in place	Intended Mitigation	Risk Score/ Risk Owner
					▪ Investigate possible future controls (District Plan/bylaw).	
40	Parking: There is a threat that car park buildings are not required in the future.	▪ Car parking buildings have been designed with single use in mind. ▪ Failure to future proof. ▪ Lack of consideration of innovation in forward planning.	▪ Inefficient building and land use. ▪ Ineffective return on capital investment.	▪ Ensure design encompasses future uses noting prevalence of innovations in transport technology.	▪ NFAR	▪ L ▪ BECA
41	Parking: There is an opportunity that car park buildings can be designed for a regenerative use.	▪ Forward planning and acceptance of the longevity of the planning horizon. ▪ Innovative design utilised.	▪ Significant return on investment... ▪ Highest and best use protected.	▪ Ensure design encompasses future uses noting prevalence of innovations in transport technology.	▪ NFAR	▪ BECA
42	Public and Passenger Transport: There is a threat that there is no behavioural change or the uptake is slower than predicted.	▪ Other modes are not efficient or preferred over private car usage.	▪ Insufficient parking capacity to meet demand. ▪ Increased traffic volumes. ▪ Expected revenues will not be achieved.	▪ Understand elasticities. ▪ Employ predictive modelling	▪ NFAR	▪ M ▪ BECA
43	Public and Passenger Transport: There is a threat that the inter-dependencies between arterials and public transport parking inhibits the ability to provide an on-street option.	▪ Arterials and parking solutions will take some time to implement.	▪ Congestion on Stanley Street and the wider network. ▪ Loss of support for spatial planning.	▪ Staging approach for arterials. ▪ Interim solution for Camp Street PT facilities.	▪ NFAR	▪ M ▪ BECA
44	Public and Passenger Transport: There is a threat of failing to meet passenger transport demand from tourist operator view.	▪ The passenger transport facilities do not meet the tourist operator requirements due to the location and future growth needs.	▪ The passenger transport operators will not use the facilities. ▪ Increased pressure on the roading network.	▪ Consideration of tourism providers in CBD shared areas. ▪ Increased communication with tourism operators. ▪ Designing options for passenger transport which include existing facilities.	▪	▪ L ▪ BECA
45	Public and Passenger Transport: There is a threat that the public transport facility creates a potentially unsafe environment.	▪ Potential for intoxicated people to congregate. ▪ Potential for disorderly behaviour.	▪ Public do not feel safe. ▪ Decrease in public use. ▪ Negative media attention.	▪	▪ Work closely with police. ▪ Technical Advisory Group to review design ▪ CPTED guidelines to be incorporated in to design briefs	▪ M ▪ PH/Desin consultants
46	Public and Passenger Transport: There is a threat that the built form of the new facilities does not integrate well with the surrounding environment.	▪ Design does not integrate well with potential and or adjoining developments. ▪ The design does not facilitate a high quality public realm. ▪ Strategic land acquisition does not occur.	▪ Negative media attention. ▪ Decreased public use. ▪ Negative impacts on overall town centre amenity.	▪ Integrated design being addressed through co-ordination of spatial planning.	▪ Technical Advisory Group to review design	▪ L ▪ PH/BECA
47	Public and Passenger Transport: There is a threat that future funding is not adequate.	▪ Low passenger numbers on the bus network. ▪ Decrease in bus fares does not result in higher passenger numbers.	▪ Bus fares increase. ▪ Increase in traffic congestion. ▪ Increase in town centre parking.	▪ Encouragement of mode shift through transport strategies and interface with District Plan ongoing.	▪ Process Gap Analysis to be completed to support Detailed Business Case	▪ M ▪ TP

No	Risk Event – Description	Causal Factor – Probable Cause	Consequence	Mitigation in place	Intended Mitigation	Risk Score/ Risk Owner
48	Public and Passenger Transport There is a threat that the programme fails to gain full buy in from both public and passenger transport providers.	▪ We have not integrated all public and passenger transport components in the Masterplan. ▪ Does not meet public and passenger provider demands.	▪ Negative media attention. ▪ Decreased public use. ▪ Negative impacts on overall town centre amenity.	▪ Involvement of both business community (operators) and ORC (regulators) is ongoing.	▪ Consider QLDC taking over responsibility for public transport from ORC. ▪ PH to table proposal from Rationale.	▪ H ▪ TP

Appendix 9: The current cost breakdown of technology and management interventions

				Least ambitious		Ambitious		Most ambitious			
Intervention	Capex Element	Unit	Unit cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Assumptions	Associated Opex
Operations centre	QLDC Office (including fit-out)		$500,000 - $2,000,000	1	$500,000	1	$1,000,000	1	$1,500,000		Staff, utilities, insurance, office upkeep
	Servers and IT		$200,000	1	$200,000	1	$200,000	1	$200,000		Updates, licenses, support
Comms network	Comms network (combination VDSL / 3G / fibre)		800000-2000000	1	$800,000	1	$1,400,000	1	$2,000,000	Based on approx. 20% of total scheme costs. Including cabinets and power connection.	Maintenance, technology updates, power
On-street data gathering				ITS hubs + limited CCTV cameras / detectors		ITS hubs + area of focus CCTV cameras / detectors + limited parking space sensors		ITS hubs + area of focus parking space sensors		26 streets, 1200 parking spaces (based on 2025 projection). 5 ITS hubs (each containing a camera and 2 sets of loops).	Camera / loop / sensor maintenance and cleaning, technology updates, power, operations centre resource
	CCTV camera / detector	Per unit	$5,000	20	$100,000	31	$155,000	20	$100,000	Average 1 camera / detector per street. Assume 50% of cameras to be mounted to existing poles.	
	CCTV pole	Per unit	$8,000	10	$80,000	16	$128,000	10	$80,000		
	Loop	Per unit	$1,000	10	$10,000	10	$10,000	10	$10,000		
	Parking space sensor (including connection to cabinet)	Per unit	$1,000	0	$-	200	$200,000	1200	$1,200,000		
VMS	Large matrix / free text VMS sign and pole	Per unit	$50,000	4	$200,000	4	$200,000	4	$200,000		Maintenance and cleaning, technology updates, power, operations centre resource
	Medium matrix / free text VMS sign and pole	Per unit	$40,000	5	$200,000	5	$200,000	5	$200,000		
Existing off-street car parks (ITS interventions)				CCTV / loops only		Parking space sensors		Parking space sensors + smart signage		Costs for 1 site (100 spaces)	
	Survey and design of improvements	Per car park	$10,000	1	$10,000	1	$10,000	1	$10,000		Maintenance and cleaning, technology updates, power, systems calibration
	Smart entry gate	Per unit	$50,000	1	$50,000	1	$50,000	1	$50,000		
	Line marking	Per space	$100	100	$10,000	100	$10,000	100	$10,000		
	CCTV camera / detector	Per unit	$5,000	2	$10,000	2	$10,000	2	$10,000		
	CCTV pole	Per unit	$8,000	1	$8,000	1	$8,000	1	$8,000		
	Loop	Per unit	$1,000	2	$2,000	2	$2,000	2	$2,000		
	Parking space sensor (including connection to cabinet)	Per unit	$500	0	$-	100	$50,000	100	$50,000		

				Least ambitious		Ambitious		Most ambitious			
Intervention	Capex Element	Unit	Unit cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Assumptions	Associated Opex
	Smart signage	Per space	$300	100	$30,000	100	$30,000	100	$30,000		
	Small matrix / free text VMS sign and pole	Per unit	$20,000	2	$40,000	2	$40,000	2	$40,000		
Parking buildings				CCTV / loops only		Parking space sensors		Parking space sensors with smart signage			
Proposed Stanley St building (ITS only) - 376 spaces	Design	Per car park	$10,000	1	$10,000	1	$10,000	1	$10,000		Maintenance and cleaning, technology updates, power, operations centre resource
	Smart entry gate	Per unit	$50,000	1	$50,000	1	$50,000	1	$50,000		
	CCTV camera / detector	Per unit	$5,000	4	$20,000	4	$20,000	4	$20,000	1 CCTV camera / detector per level	
	Loop	Per unit	$1,000	2	$2,000	2	$2,000	2	$2,000		
	Parking space sensor (including connection to cabinet)	Per unit	$500	0	$-	376	$188,000	376	$188,000		
	Smart signage	Per space	$300	0	$-	0	$-	376	$112,800		
	Small matrix / free text VMS sign and pole	Per unit	$20,000	2	$40,000	2	$40,000	2	$40,000		
Proposed Ballarat St building (ITS only) - 653 spaces	Design	Per car park	$10,000								Maintenance and cleaning, technology updates, power, operations centre resource
	Smart entry gate	Per unit	$50,000								
	CCTV camera / detector	Per unit	$5,000							1 CCTV camera / detector per level	
	Loop	Per unit	$1,000								
	Parking space sensor (including connection to cabinet)	Per unit	$500								
	Smart signage	Per space	$300								
	Small matrix / free text VMS sign and pole	Per unit	$20,000								
Proposed Cemetery Rd building (ITS only) - 400 spaces	Design	Per car park	$10,000	1	$10,000	1	$10,000	1	$10,000		Maintenance and cleaning, technology updates, power, operations centre resource
	Smart entry gate	Per unit	$50,000	1	$50,000	1	$50,000	1	$50,000		
	CCTV camera / detector	Per unit	$5,000	4	$20,000	4	$20,000	4	$20,000	1 CCTV camera / detector per level	
	Loop	Per unit	$1,000	2	$2,000	2	$2,000	2	$2,000		

				Least ambitious		Ambitious		Most ambitious			
Intervention	Capex Element	Unit	Unit cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Assumptions	Associated Opex
	Parking space sensor (including connection to cabinet)	Per unit	$500	0	$-	400	$200,000	400	$200,000		
	Smart signage	Per space	$300	0	$-	0	$-	400	$120,000		
	Small matrix / free text VMS sign and pole	Per unit	$20,000	2	$40,000	2	$40,000	2	$40,000		
Proposed Warren Park building (ITS only) - 200 spaces	Design	Per car park	$10,000	1	$10,000	1	$10,000	1	$10,000		Maintenance and cleaning, technology updates, power, operations centre resource
	Smart entry gate	Per unit	$50,000	1	$50,000	1	$50,000	1	$50,000		
	CCTV camera / detector	Per unit	$5,000	4	$20,000	4	$20,000	4	$20,000	1 CCTV camera / detector per level	
	Loop	Per unit	$1,000	2	$2,000	2	$2,000	2	$2,000		
	Parking space sensor (including connection to cabinet)	Per unit	$500	0	$-	200	$100,000	200	$100,000		
	Smart signage	Per space	$300	0	$-	0	$-	200	$60,000		
	Small matrix / free text VMS sign and pole	Per unit	$20,000	2	$40,000	2	$40,000	2	$40,000		
Proposed Gorge Rd building (ITS only) - 300 spaces	Design	Per car park	$10,000	1	$10,000	1	$10,000	1	$10,000		Maintenance and cleaning, technology updates, power, operations centre resource
	Smart entry gate	Per unit	$50,000	1	$50,000	1	$50,000	1	$50,000		
	CCTV camera / detector	Per unit	$5,000	4	$20,000	4	$20,000	4	$20,000	1 CCTV camera / detector per level	
	Loop	Per unit	$1,000	2	$2,000	2	$2,000	2	$2,000		
	Parking space sensor (including connection to cabinet)	Per unit	$500	0	$-	300	$150,000	300	$150,000		
	Smart signage	Per space	$300	0	$-	0	$-	300	$90,000		
	Small matrix / free text VMS sign and pole	Per unit	$20,000	2	$40,000	2	$40,000	2	$40,000		
New controlled on-street parking spaces				200 new spaces		600 new spaces		1200 new spaces		Existing paid on-street parking on Earl St, Marine Parade, Stanley St, Athol Street and Memorial St will be removed as part of pedestrianisation	Maintenance and cleaning, technology updates, power, additional enforcement, operations centre resource
	Scheme design		$10,000	1	$10,000	1	$10,000	1	$10,000		
	Public consultation		$10,000	1	$10,000	1	$10,000	1	$10,000		

				Least ambitious		Ambitious		Most ambitious			
Intervention	Capex Element	Unit	Unit cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Assumptions	Associated Opex
	Parking ticket machine	Per parking zone	$30,000	10	$300,000	30	$900,000	60	$1,800,000	1 machine per 20 spaces	
	Line marking / signage	Per parking space	$1,000	200	$200,000	600	$600,000	1200	$1,200,000		
Ride share parking				50 spaces (stickers)		50 spaces (tags)		100 spaces (tags)			Technology updates, additional enforcement
	Scheme design		$10,000	1	$10,000	1	$10,000	1	$10,000		
	Public consultation		$10,000	1	$10,000	1	$10,000	1	$10,000		
	Vehicle identification sticker development		$5,000	1	$5,000	0	$-	0	$-		
	Vehicle identification sticker production	Per sticker	$1	50	$50	0	$-	0	$-		
	Vehicle identification RFI tag development		$10,000	0	$-	1	$10,000	1	$10,000		
	Vehicle identification RFI tag production	Per tag	$2	0	$-	50	$100	100	$200		
Resident parking				100 spaces (stickers)		300 spaces (tags)		500 spaces (tags)			Technology updates, additional enforcement
	Scheme design		$10,000	1	$10,000	1	$10,000	1	$10,000		
	Public consultation		$10,000	1	$10,000	1	$10,000	1	$10,000		
	Vehicle identification sticker development		$5,000	1	$5,000	0	$-	0	$-		
	Vehicle identification sticker production	Per sticker	$1	100	$100	0	$-	0	$-		
	Vehicle identification RFI tag development		$10,000	0	$-	1	$10,000	1	$10,000		
	Vehicle identification RFI tag production	Per tag	$2	0	$-	300	$600	500	$1,000		
Demand management (increased / variable pricing)				100 spaces		300 spaces		600 spaces			Technology updates, additional enforcement, ongoing monitoring of demand / occupancy by operations centre / consultancy / Council
	Consultancy to determine appropriate pricing		$20,000	1	$20,000	1	$20,000	1	$20,000		
	Update price at parking ticket machine	Per machine	$500	5	$2,500	10	$5,000	20	$10,000	1 machine per 20 spaces	
	Contractor to update signage	Per space	$100	100	$10,000	200	$20,000	400	$40,000		
	Update pricing in booking systems		$1,000	1	$1,000	1	$1,000	1	$1,000		
Bike parks				5 bike parks		10 bike parks		20 bike parks			Maintenance and cleaning

				Least ambitious		Ambitious		Most ambitious			
Intervention	Capex Element	Unit	Unit cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Assumptions	Associated Opex
	Design	Per bike park	$5,000	5	$25,000	10	$50,000	20	$100,000		
	Public consultation		$5,000	1	$5,000	1	$5,000	1	$5,000		
	Construction (including streetscape and infrastructure)	Per bike park	$5,000	5	$25,000	10	$50,000	20	$100,000		
Digital interface				Off-the-shelf app		Off-the-shelf app + mobility as a service and enforcement		App development			
	Mobile friendly web page		$250,000	0	$-	0	$-	1	$250,000		Support / customer service, licensing, server space, updates, operations centre resource
	App		$500,000	0	$-	0	$-	1	$500,000		
	Rmote booking add-on		$100,000	0	$-	0	$-	1	$100,000		
	Mobility as a service		$200,000	0	$-	0	$-	1	$200,000		
	Enforcement aspect		$100,000	0	$-	0	$-	1	$100,000		
Technology assisted enforcement				Enforcement devices linked to occupancy data		Fully automated enforcement		Fully automated enforcement			
	Increased enforcement										Salaries, insurance, uniforms, technology, increased infringement processing
	Enforcement device	Per unit	$2,000	10	$20,000	0	$-	0	$-		Licensing, technology updates, support / customer service
	Automated enforcement		$50,000	0	$-	1	$50,000	1	$50,000		Technology updates
Increase parking penalties	Public consultation		$10,000	1	$10,000	1	$10,000	1	$10,000		
	Legal costs		$500,000	1	$500,000	1	$500,000	1	$500,000		
	Marketing		$120,000	1	$120,000	1	$120,000	1	$120,000		
Marketing and comms	Leaflet development + initial print and distribute		$20,000	1	$20,000	1	$20,000	1	$20,000		Ongoing printing and distribution, updates to information, training sessions
	Map development + initial print and distribute		$20,000	1	$20,000	1	$20,000	1	$20,000		
	Website development		$20,000	1	$20,000	1	$20,000	1	$20,000		
	Banner development		$10,000	1	$10,000	1	$10,000	1	$10,000		
	Workplace / school travel plans										Staff to conduct training

				Least ambitious		Ambitious		Most ambitious			
Intervention	Capex Element	Unit	Unit cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Quantity	Cost (NZD)	Assumptions	Associated Opex
Update District Plan	Update District Plan		$50,000	1	$50,000	1	$50,000	1	$50,000		
	Public consultation		$20,000	1	$20,000	1	$20,000	1	$20,000		
CALM model update	Survey and analysis		$40,000	1	$40,000	1	$40,000	1	$40,000		Periodic updates
SUM					**$4,206,650**		**$7,400,700**		**$12,556,000**		

Appendix 10: Queenstown Masterplan Parking Interventions – Options Development Report

(produced by Beca)

Report

Queenstown Masterplan Parking Interventions - Option Development

Prepared for Queenstown Lakes District Council

Prepared by Beca Limited

18 August 2017

Appendix 11: Queenstown Town Centre Masterplan Modelling and Economic Evaluation

Appendix 12: Queenstown Airport Masterplan Options

Appendix 13: Queenstown Town Centre Masterplan Indicative Programme Business Case

Appendix 14: Queenstown Town Centre Public and Passenger Transport Facilities Indicative Business Case

Appendix 15: Queenstown Town Centre Arterials Routes Indicative Business Case