Remarkables Ski Area Expansion FTAA

Section 53 - Transportation Review

Prepared for	Queenstown Lakes District Council
Project number	QLDC-J082
Revision	Final
Issue date	16 October 2026
Prepared by	Mat Collins, Associate Transportation Engineer and Dave Smith, Technical Director – Transportation Planning
Reviewed by	Dave Smith, Technical Director – Transportation Planning

Executive summary

1. QLDC has requested transport input on the effects of the Remarkables Ski Area Expansion Project on the SH6 network, and on the mitigation offered by the applicant, NZSki Limited. Our key findings are set out below.
2. Our assessment of TomTom data show there are currently extensive delays along the SH6 corridor and at the Remarkables access and Coneburn roundabout during the winter ski field arrival and departure periods, with our comparison of July 2024 vs July 2026 showing significant increases in average and 85th percentile delays along SH6, indicating that a “tipping point” has been reached on SH6. These levels of delay are not experienced during the summer months.
3. The impact of the additional vehicular traffic associated with the expanded Remarkables proposal is substantial, adding over 9,600 vehicle hours of delay per annum to other road users along SH6. When accounting for three years of continued SH6 growth due to development along the southern corridor this increases to over 30,000 vehicle hours of delay per annum. The economic cost of this additional travel time delay and associated vehicle operating costs and emissions (due to idling time) equates to $680K in 2026 growing to $2.220M in 2029.
4. The Remarkables access road onto SH6 is not functioning satisfactorily, and currently falls well short of NZ Transport Agency Waka Kotahi (NZTA) guidance in terms of design standard. We do not support further traffic generation which would exacerbate the current level of queuing and delays being experienced, unless further mitigation (i.e. beyond the current traffic management measures) is identified and implemented to relieve congestion at the SH6 Remarkables access road.
5. We recommend that traffic signals be assessed further including as a permanent (and not temporary) mitigation measure for the SH6 Remarkables access. This will remove the requirement for vehicles to undertake u-turn manoeuvres at the Coneburn roundabout and has the potential to address both morning and evening peak congestion associated with skifield arrivals and departures.

6. Although we consider that the transport effects of the proposal will not be adequately addressed under the conditions proposed by the applicant, if the Panel is minded to grant consent, we recommend conditions that:
    a. Cap the peak hour vehicle movements at the SH6 Remarkables access at current levels until a satisfactory SH6 Remarkables access upgrade is operational. This cap could be managed through a car park booking system.
    b. Require the applicant secure NZTA approval for the SH6 Remarkables access upgrade which is also appropriately futureproofed in the context of the SH6 Southern Growth corridor. We consider traffic signals are likely to suit the tidal nature of ski traffic, but the form of upgrade should be confirmed through this assessment.
    c. Require binding mode share and vehicle occupancy targets (or maximum vehicle movements), monitoring of queue lengths and vehicle movements at the SH6 access, annual reporting, and defined actions if targets are not met.
    d. Require a traffic management plan for the lower car parks that manages inbound queues to avoid queuing onto SH6, and to management outbound queues to ensure the efficiency operation of the transit hub is maintained.

Introduction

7. Queenstown Lakes District Council (QLDC) has engaged Abley Ltd (Abley) to provide expert support on transport planning and transport engineering matters for the Fast-track Approvals Act 2024 application by NZSki Limited (the applicant) for the Remarkables Ski Area Expansion Project (the Project) (FTAA-2605-1236). This memo sets out our assessment of the transport effects of the Project.
8. This memo has been jointly prepared by Dave Smith and Mat Collins.
9. Dave's full name is David John Robert Smith. He is a Technical Director – Transportation Planning at Abley and holds a Master of Philosophy and a Bachelor of Technology (Hons). He is a transportation professional with over 25 years of experience. He has:
    a) been admitted as a Member of Engineering New Zealand (including the Transportation and NZMUGS sub-groups)
    b) been Chartered as a professional member of the Chartered Institute of Logistics and Transport
    c) been accredited as an independent hearing commissioner
    d) provided transportation engineering and planning (including transportation economics) advice, including as an expert witness, to a range of public and private sector clients including NZ Transport Agency Waka Kotahi (NZTA), Auckland Transport, Auckland Council, Taupō District Council, Selwyn District Council, Queenstown-Lakes District Council, Central Otago District Council, Fulton Hogan, Foodstuffs, Fonterra, Ports of Auckland and many others
    e) managed and maintained the Queenstown-Lakes District Tracks transportation model for QLDC and NZTA since 2013
    f) been the technical lead on the delivery of the Queenstown Integrated Transport PBC and modelling lead on the Queenstown Transport Business Cases
10. Mat's full name is Mathew Ross Collins. He is an Associate Transport Engineer at Abley. He holds a Bachelor of Engineering (Hons) from the University of Auckland and has a post-graduate certificate in transportation and land use planning from Simon Fraser University in Vancouver, Canada. He has:
    a) practised as a transportation planner and engineer since 2015, in both public sector and consultancy roles

b) extensive experience with public and private sector land development projects, including strategic land use and transport integration, District Plan reviews, Fast-tract Approvals Act Applications, plan changes, Integrated Transport Assessments, development consenting, and outline plans of work.

11. Abley has been engaged by QLDC since May 2026 to assist with the transport aspects of the Project. We prepared the *Remarkables Ski Area Expansion – ITA Review*, Revision B, dated 3 June 2026 (our June review), which was co-authored by Mat Collins and Logan Copland and reviewed by Dave Smith.

12. While acknowledging this is a substantive application made under the FTAA, we confirm that we have both read and agree to comply with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. This memo has been prepared in accordance with that Code. Unless stated otherwise, the opinions expressed are within the authors' areas of professional expertise, and no material facts have been omitted that might alter or detract from those opinions.

Scope and limitations of our memo

13. We have relied upon the following information:

a) Integrated Transport Assessment, prepared by Stantec NZ, dated 15 May 2026 (the ITA)
b) Landscape Effects Assessment, prepared by Boffa Miskell, dated 5 May 2026 (the LEA)
c) the applicant's graphical supplement, including Sheets E102, E152 and E153
d) Transport Addendum report, prepared by Stantec NZ, dated 25 June 2026
e) QLDC response NZSKI FTAA Outstanding Matters letter, prepared by QLDC dated 13 August 2026
f) Te Tapuae Southern Corridor Strategic Plan, adopted September 2025 (the TTSCSP), available at https://www.qldc.govt.nz/your-council/council-projects/te-tapuae-southern-corridor
g) TomTom traffic data for SH6 for July 2024, March 2026, July 2026, obtained by Abley
h) Outputs from the Queenstown-Lakes District Tracks transport model prepared by Abley (the Abley modelling)

14. Dave Smith attended an online meeting with the Applicant's transport expert, QLDC and NZ Transport Agency Waka Kotahi (NZTA) on the 27th August 2026. Following that meeting, the Applicant filed additional information with the Panel. In respect of transportation, that include a letter from Mitchell Daysh that says "*a number of updates have been made to the application documents and conditions to provide further background and clarification regarding a number of the matters raised*".

15. We were also provided with, on 14 October 2026, the Applicant's response to the Panel's information request. That relevantly included a reference to the Queenstown Strategic Network document published by NZTA on 6th October 2026. The Applicant does not put forward any positions in relation to the document in their RFI response and states "*the relevance of this document to the project will be addressed in NZTA's Section 53 comments*". We do not address this further but note that this document "*sets out a plan to manage and develop Queenstown's strategic transport network over the next 30 years*" and does not explicitly reference QLDC's own Te Tapuae Southern Corridor Structure Plan which we discuss here in paragraphs 20 to 25.

16. A site visit has not been undertaken at this stage, although Dave Smith is very familiar with the transport network in the local and wider area.

17. We do not address car park design or other matters internal to the site, which we understand the applicant proposes to manage through on-site traffic management, other than where on-site

operations could affect SH6. We have not assessed the proposed gondola, new access roads or trails.

Project overview

18. The Project comprises upgrades to the existing Rastus Burn Ski Area and the progressive development of the Doolans Basin Ski Expansion Area, located approximately 3 km south of Frankton, refer Figure 2.1.

19. The Project will expand the ski area's daily visitor capacity from approximately 3,500 persons per day currently to 4,500 persons per day at Stage 1 and 6,000 persons per day at Stage 2 (Doolans Base Building).[1] Relevant transport aspects (also sourced from the ITA) of the Project include:

    a) Traffic generation: peak arrivals of 360 vehicles per hour (veh/hr) at Stage 1 and 510 veh/hr at Stage 2, assuming successful travel demand management measures, up from current peak arrivals of approx 330 veh/hr;

    b) Expansion and reconfiguration of four car parks (refer Figure 2.2):

        i. Car Park A: upgrades to the Lower Remarkables car park area next to SH6, including marking of car parks and provision of a new bus and shuttle transit hub;

        ii. Car Parks B and Boneyard: new lower car parking areas adjacent to the Remarkables Ski Field Access Road, close to SH6 (slightly uphill from Car Park A);

        iii. Car Park 1: reduction and reconfiguration of car parking at Rastus Burn Base Building. The re-configuration is proposed to be altered on a day-to-day basis to accommodate shuttle pick up/drop off (PUDO) on peak days;

        iv. Car Park 3: an existing parking area,which will be removed and replaced with a substation;

    c) Active management of travel, access and parking during peak periods: traffic controllers to organise car parking as visitors arrive, a Temporary Traffic Management Plan (TTMP) on SH6, and preparation, implementation and monitoring of a Travel Demand and Parking Management Plan (TDPMP);

    d) Reconfiguration of the existing vehicle access to SH6 (subject to consultation with and approval from NZTA), comprising permanent measures to restrict outbound movements to left-turn exit only, variable speed limit signs on SH6, and, within 12 months of the Doolans Base Building opening, an investigation in collaboration with NZTA into vehicle crossing performance, potential improvements, and funding of the preferred solution, with the applicant required to implement the improvements identified.

[1] ITA Table 1-1.

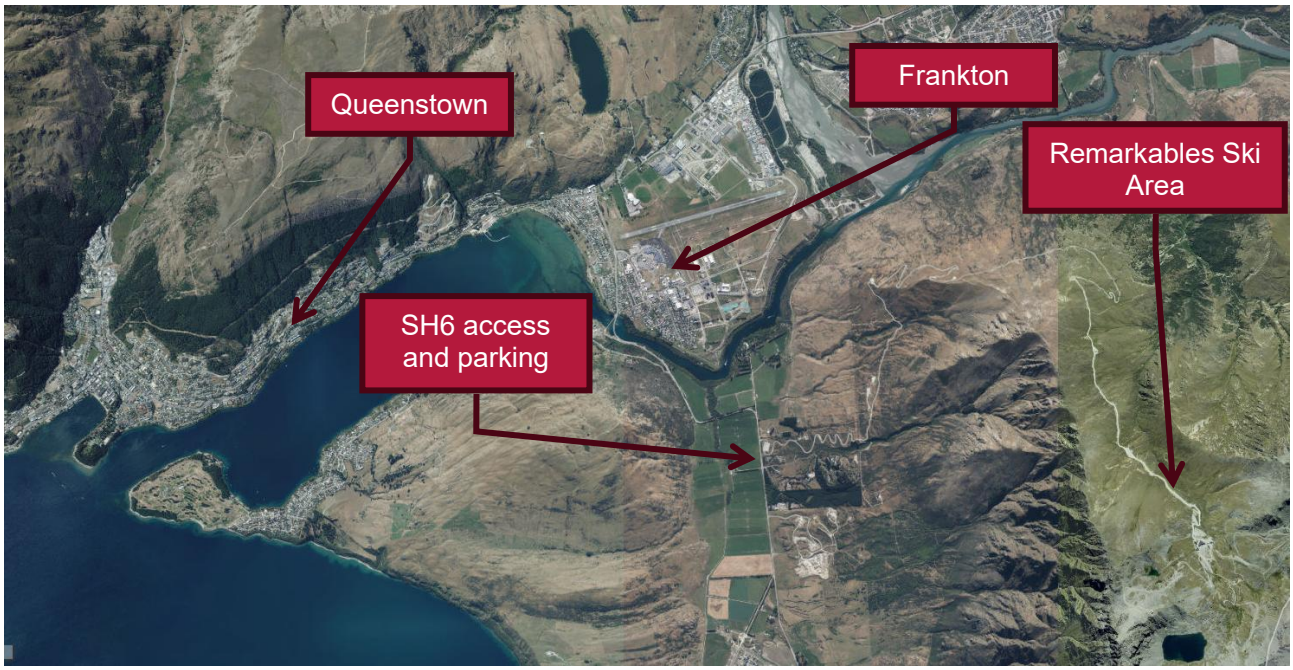


Figure 1 Site location (Source: QLDC District Plan GIS, marked up by Abley)

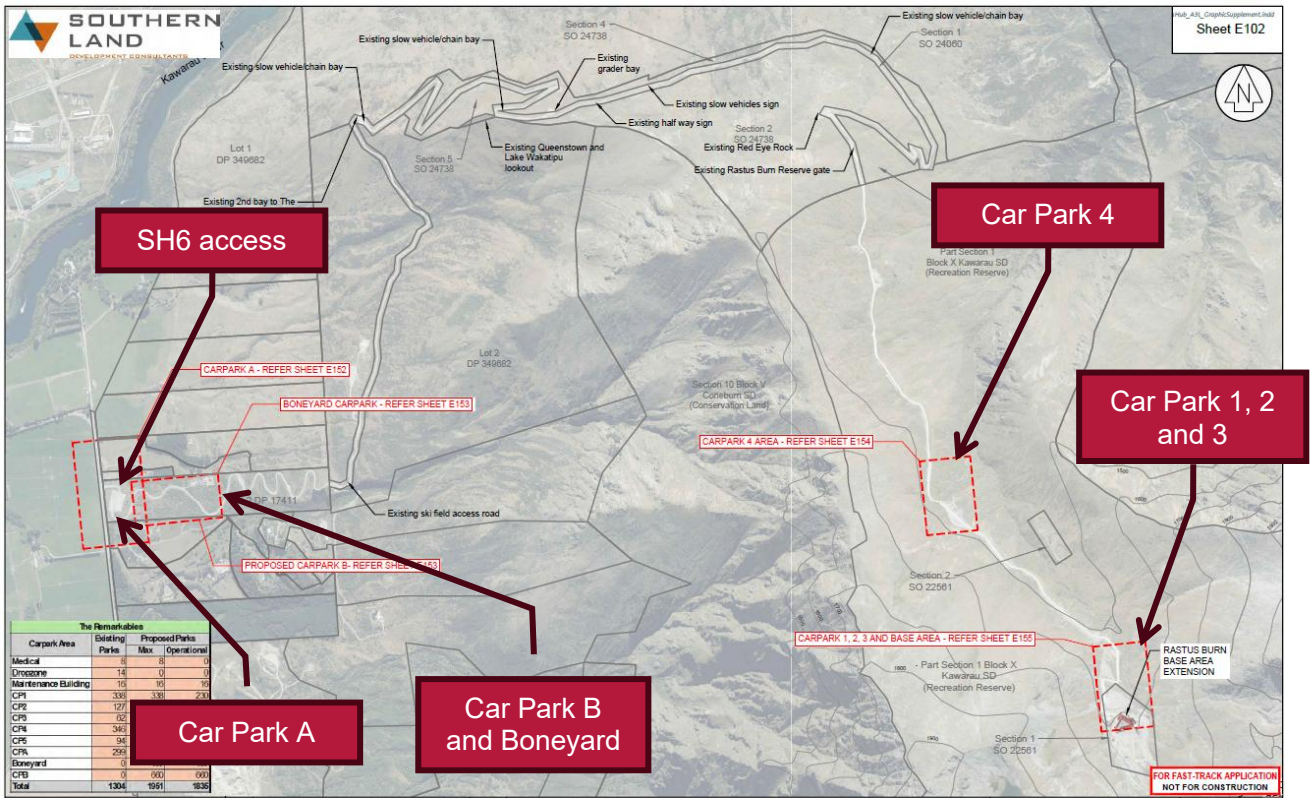


Figure 2 Ski Areas Access Road Overall Plan. (Source: Graphical supplement Figure 1).

Te Tapuae Southern Corridor Structure Plan

20. The Applicant relies on future upgrades to the SH6 corridor signalled through the Te Tapuae Southern Corridor Structure Plan (TTSCSP). On page 80 of the ITA mitigation measures required to support the proposal are listed including the implementation of safety improvements at the SH6 / Remarkables Access intersection, a matter which we discuss in detail later in this memo. This includes an accompanying note that "*the timing and need for implementation of improvements should be informed by the decisions and timings for the wider network improvements proposed under the (TTSCSP)*". We interpret this note as simply relying on the delivery of the structure plan without considering the impacts of the application in relation to any of the SH6 corridor upgrades (identified in the TTSCSP) that may be deemed necessary as a result of skifield traffic,
21. This in our view is a critical matter and for that reason we present an overview of the TTSCP.
22. The TTSCSP was adopted by QLDC in September 2025, with the Structure Plan area shown in Figure 1 (with Remarkables ski access shown). The Structure Plan has been developed in response to high demand for development along the southern corridor and is "*a 30-year roadmap to guide how an area grows — from where homes, shops, and parks go, to how people get around and where key services are placed and staged. By guiding the placement of essential infrastructure and services, structure planning ensures new communities develop in a well-functioning, cohesive, and sustainable way. It doesn't change zoning, but it sets the direction for future development*"[2].
23. We understand from QLDC that the Structure Plan has been developed in response to residential and commercial growth along the southern corridor but pre-dates the Project, so the traffic impacts of the Remarkables expansion were not anticipated when it was being prepared.

[2] https://www.qldc.govt.nz/your-council/council-projects/te-tapuae-southern-corridor

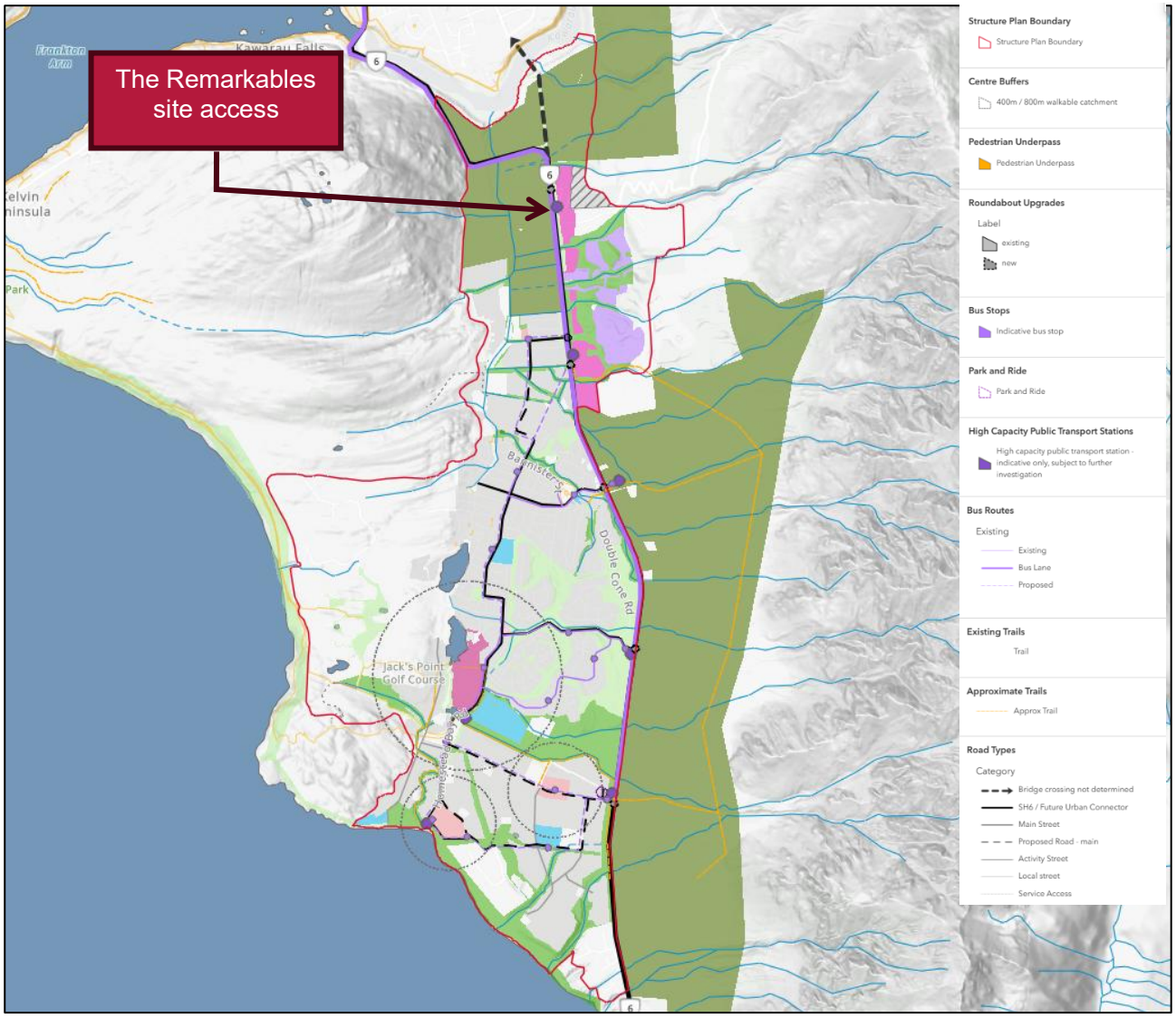


Figure 1 Te Tapuae Southern Corridor Structure Plan[3]

24. In the context of transportation improvements on the SH6 corridor the Structure Plan anticipates:
    a) Bus priority lanes to encourage public transport uptake
    b) Increased frequency of public transport services
    c) Safe cycling infrastructure including an active travel corridor
    d) A new bridge crossing of the Kawarau River (likely to the east of current bridge in vicinity of Boyd Road)
    e) Potential development of offline public transport system with park and ride
25. Other specific upgrades along the existing SH6 corridor are also specified as[4]:
    - *"New roundabout to the south from SH6 into Te Tapuae Southern Corridor, located near the Homestead Bay East Local Centre.*
    - *Convert existing intersections from SH6 to the development into roundabouts.*

[3] https://www.qldc.govt.nz/your-council/council-projects/te-tapuae-southern-corridor#documents
[4] https://storymaps.arcgis.com/stories/48822837a39541d884390a1241bad165

- *Increase connectivity of the internal road network within Te Tapuae Southern Corridor."*

Overview of the applicant's transport assessment

Traffic generation

26. With the proposed expansion, visitor numbers are anticipated to increase from 3,500 to 4,500 persons per day at Stage 1 and 6,000 persons per day at Stage 2 (ITA Table 1-1). The ITA forecasts peak hour arrival flows at the SH6 access increasing to approximately 360 veh/hr at Stage 1 and 510 veh/hr at Stage 2, with corresponding peak departure flows of 430 veh/hr and 590 veh/hr respectively (ITA Figures 8-9 and 8-12).
27. These forecasts are contingent on the applicant achieving its proposed mode shift targets, with bus and shuttle mode share increasing from 26% currently to 40% at Stage 1 and 50% at Stage 2 (ITA Table 7-4). If those mode share targets are not achieved, vehicle trip generation will be materially higher than assumed in the ITA.
28. We have the following concerns with the traffic generation assessment:
    a) The mode share targets relied upon by the ITA are not measured or monitored through conditions of consent, and the ITA does not identify what mitigation would be required if those targets are not met. Given that the ITA assessment is predicated on achieving these targets, this represents a significant uncertainty in the assessment.
    b) The ITA acknowledges that on days with more than 3,500 visitors in 2025, private vehicle mode share exceeded 70%, which is higher than the 65% assumed in the Baseline scenario (ITA Tables 4-4 and 7-4). The Baseline target therefore requires an improvement on current behaviour rather than a continuation of it, and should be treated with a high degree of caution given there are no binding mechanisms to achieve it.
    c) There is no evidence to support the assumed increase in average vehicle occupancy (from 2.6 persons per vehicles existing to 2.9 for Stage 2).

SH6 Remarkables access performance

29. The ITA assesses the performance of the SH6 Remarkables access under existing and future conditions but excludes Stages 1 and 2 of the Project (ITA Section 9.1). We have the following concerns:
    a) Under existing conditions (2025, 3,500 visitors, left-turn exit TTMP in place), the left-exit movement already operates with a queue of 85 m and a delay of 36 seconds during the afternoon peak departure period. Right-exit movements, where permitted in the morning, experience delays of 111 seconds (ITA Table 9-1).
    b) By 2028, with no vehicle crossing upgrade and continued reliance on the left-turn TTMP, the ITA models left-exit queue lengths exceeding 800 m and delays greater than 600 seconds on any weekday with 3,500 visitors (ITA Table 9-2). The ITA is explicit that this degradation is driven primarily by SH6 corridor growth, irrespective of any increase in ski area traffic.
    c) The ITA investigates temporary signal control as a potential short-term solution during afternoon peaks (ITA Table 9-3). Under 2028 conditions with temporary signals, queue lengths of 164 m on the access road and 390 m on SH6 southbound are modelled. The ITA notes this arrangement could remain viable for approximately five years based on current growth rates.
30. The ITA does not include any modelling or other technical assessment of Stage 1 or Stage 2 visitor demand. Stage 2 peak departure volumes (590 veh/hr) are approximately 57% higher than those modelled in the 2028 assessment (375 veh/hr). In our June review we identified this as a material gap. The applicant has not provided this assessment, so we have undertaken our own

assessment of current and potential future SH6 access performance, included from paragraph 34 of this memo.

Coneburn roundabout

31. The ITA confirms that the existing left-turn-only TTMP directly results in vehicles exiting the ski field and U-turning at the Coneburn roundabout to travel north. The operation of the Coneburn roundabout is important to maintain the through function of the SH6 corridor as well as to provide access to live zoned development land to the west and east of the roundabout.
32. Figure 3-7 of the ITA shows that during the 2025 ski season, southbound traffic volumes past the roundabout were consistently higher than northbound volumes at the access road. The ITA attributes this to visitors U-turning at Coneburn before heading north, generating approximately 250 veh/day on that section of SH6 that would not otherwise be present (ITA Section 3.3).
33. The ITA does not assess the effect of increased U-turn movements arising from Stage 1 and Stage 2 on the performance of the Coneburn roundabout, nor the effects of the increase in traffic on the wider network. As above we have undertaken our own assessment of current and potential future SH6 access performance, included from paragraph 34 of this memo.

Transportation assessment by Abley

Understanding current levels of delay

34. We have extracted TomTom analytics travel time data to understand the current performance of the network. This has focused on the SH6 southern corridor and the Remarkables access road and minor leg approaches to the Coneburn roundabout. The six routes are shown below.

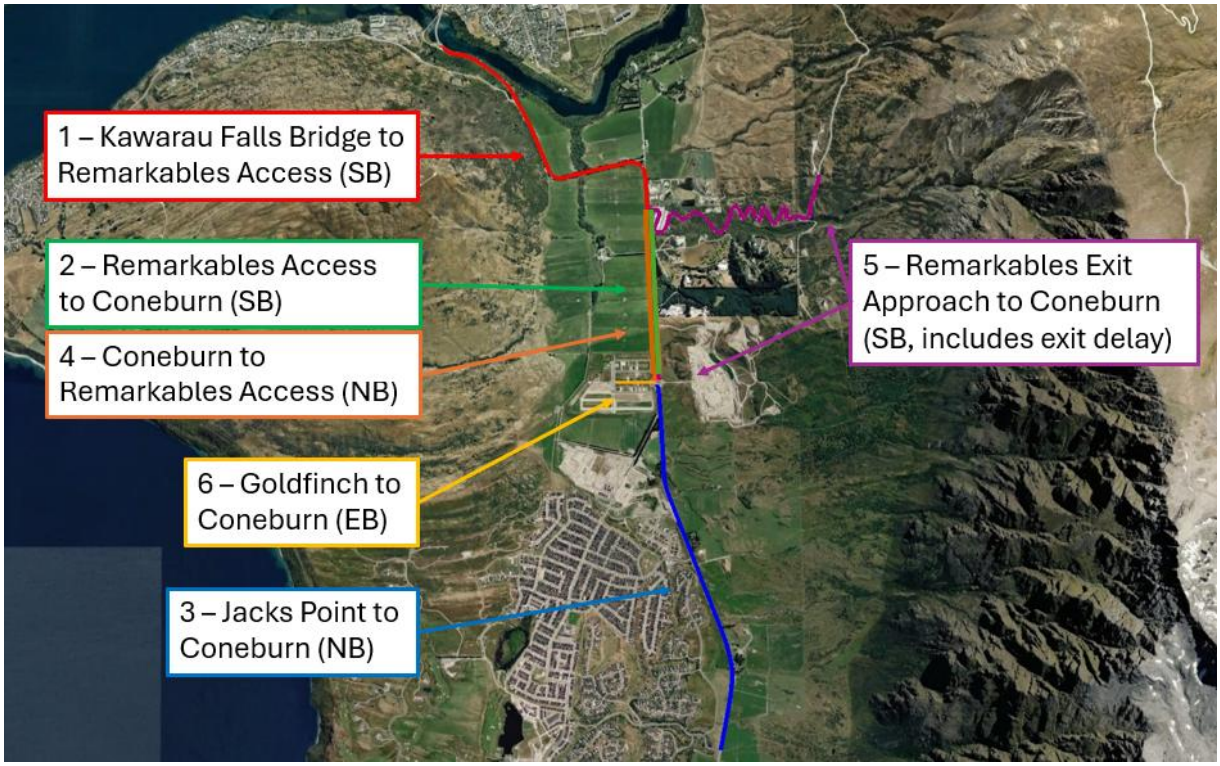


Figure 1 Tomtom travel time routes to extract delays

35. We have calculated delays by comparing the freeflow speed on each corridor and approach road (assumed to be the 15th percentile speed between 7pm and 6am) against the observed travel times during the peak hours. The data extraction has focused on the month of July 2026 to correspond to peak ski season and separately analysed weekday and weekend travel data. The corresponding levels of delay experienced along the SH6 corridor (compared to free flow) and on the approach roads to SH6 are summarised below (with bold red text showing where delays are one minute or greater).

Table 1 Average and 85th percentile intersection approach delays (July 2026)

Route	Average delay (seconds)				85th %ile delay (seconds)			
	Weekday 8-9am	Weekday 5-6pm	Weekend 8-9am	Weekend 5-6pm	Weekday 8-9am	Weekday 5-6pm	Weekend 8-9am	Weekend 5-6pm
1) SH6 (Kawarau Falls Bridge to Remarkables access)	22	**180**	17	13	31	**314**	27	20
2) SH6 Remarkables access to Coneburn	10	71	5	17	15	**105**	10	26
3) SH6 Jacks Point to Coneburn roundabout	**179**	39	10	12	**381**	36	22	23
4) SH6 Coneburn roundabout to Remarkables access	36	47	9	12	47	**60**	14	18
5) Ski fields to Coneburn roundabout via Remarkables access left turn out	0	**171**	0	**85**	20	**284**	25	**157**
6) Goldfinch approach to Coneburn roundabout	22	15	0	8	41	27	7	14

36. The data demonstrates that average delays of three minutes (or close to three minutes) are currently being experienced at the following locations:
    a) Weekday morning peak on SH6 when approaching the Coneburn roundabout from the south (Route 3) – this demonstrates that the Coneburn roundabout is already operating over capacity with an average of 3-minute delays.
    b) Weekday evening peak on SH6 when approaching the Remarkables access from the north (Route 1) – this is likely due to traffic blocking back from the Coneburn roundabout. When added to the approach delay between the Remarkables access and the Coneburn roundabout (Route 2) this equates to over 4 minutes of delay on average.
    c) Weekday evening peak on Remarkables access to SH6 (Route 5) – this is when traffic is exiting the ski field and when coupled with the delay between the Remarkables access and Coneburn roundabout (Route 2) this corresponds to over 7 minutes of delay on average exiting the ski field.
37. The data includes 85th percentile delays which demonstrate the performance of the network for the 15% worst data available (equivalent to the 3rd worst of the 20 weekdays in July 2026). The highest levels of delay experienced are:

a) Weekday morning peak on SH6 when approaching the Coneburn roundabout from the south (Route 3) – this demonstrates that the Coneburn roundabout is already operating over capacity with 6+ minute delays.

b) Weekday evening peak on SH6 when approaching the Remarkables access from the north (Route 1) – this is likely due to blocking back from the Coneburn roundabout. When added to the approach delay between the Remarkables access and the Coneburn roundabout (Route 2) this equates to 7 minutes of delay along SH6.

c) Weekday evening peak on Remarkables access road exiting onto SH6 (Route 5) – this is when traffic is exiting the ski field and when coupled with the delay between the Remarkables access and Coneburn roundabout this corresponds to over 13 minutes of delay exiting the ski field.

d) Weekend evening peak on the Remarkables access exiting onto SH6 and approaching the Coneburn roundabout (Route 5) is also operating over capacity with 3-4 minute delays occurring.

38. Corresponding data was extracted based on July 2024 weekday and weekend travel to understand how much the network performance has changed in the last two years as a result of changing travel demand along the corridor. This is summarised in the table below and shows that most delays were 30 seconds or less along each corridor. Our view is that this analysis demonstrates the network has in the last two years passed a 'tipping point' where network performance and traffic congestion during the ski season has deteriorated markedly.

39. In our view any further increase in SH6 traffic or ski traffic will be accompanied by further increases in delays and deteriorating traffic conditions.

Table 2 Change in average and 85th percentile delays on key routes (July 2024 vs July 2026)[5]

Route	Average delay (seconds)				85th percentile delay (seconds)			
	Weekday 8-9am	Weekday 5-6pm	Weekend 8-9am	Weekend 5-6pm	Weekday 8-9am	Weekday 5-6pm	Weekend 8-9am	Weekend 5-6pm
1) SH6 (Kawarau Falls Bridge to Remarkables access)	16 - 22	**12 – 180**	10 - 17	7 – 13	24 - 31	**17 – 314**	18 - 27	13 - 20
2) SH6 Remarkables access to Coneburn	10 - 10	13 – 71	1 - 5	9 – 17	15 - 15	**18 – 105**	6 - 10	14 - 26
3) SH6 Jacks Point to Coneburn roundabout	**21 - 179**	18 – 39	12 - 10	17 – 12	**28 - 381**	26 – 36	19 - 22	29 - 23
4) SH6 Coneburn roundabout to Remarkables access	12 – 36	11 – 47	8 - 9	8 – 12	17 - 47	**16 – 60**	12 - 14	12 - 18

40. We have extracted equivalent travel time data to calculate delays along the corridor during non-ski season traffic conditions, corresponding to March 2026 with results shown in the below table. The results show that delays are less than 60 seconds so it is apparent that the network performance outside of ski season is markedly better when compared to during the ski-season.

[5] The delay assessment has deliberately focused on impacts on SH6 traffic so routes 5 and 6 have not been re-run

Table 3 Average and 85th percentile intersection approach delays (March 2026)

Route	Average delay (seconds)				85th %ile delay (seconds)			
	Weekday 8-9am	Weekday 5-6pm	Weekend 8-9am	Weekend 5-6pm	Weekday 8-9am	Weekday 5-6pm	Weekend 8-9am	Weekend 5-6pm
1) SH6 (Kawarau Falls Bridge to Remarkables access)	15	15	9	10	23	22	17	17
2) SH6 Remarkables access to Coneburn	12	13	7	9	17	19	13	13
3) SH6 Jacks Point to Coneburn roundabout	38	20	16	15	49	29	25	23
4) SH6 Coneburn roundabout to Remarkables access	17	10	7	8	22	15	11	12

41. By comparing the March 2026 (no ski traffic) and July 2026 (including ski traffic) average travel time delays along the full length of SH6, it is possible to estimate the impact of the winter ski traffic activity on delays for SH6 northbound and southbound traffic. The largest impacts are:
    a) 159 seconds delay to other northbound SH6 traffic in the weekday morning peak hour (8-9am)
    b) 223 seconds delay to other southbound SH6 traffic in the weekday evening peak hour (5-6pm)

Assessment of growth in traffic on SH6

42. We have undertaken a traffic forecasting and transportation economics assessment to understand the impacts of additional growth in ski field activity associated with an increase from 3,500 to 6,000 visitors per day combined with continued growth in SH6 traffic over the next three years to 2029. This assessment is based on the following assumptions:
    a) NZTA traffic counts demonstrate that the maximum recorded throughput of the SH6 corridor in vicinity of the Coneburn roundabout is 1,200 vehicles per lane/hour and therefore it is not possible to get more traffic through the current network on a per hourly basis.
    b) The impact of increased SH6 travel demand will therefore result in longer peak periods (a phenomenon called peak spreading) over which the current heavily congested conditions will be experienced.
    c) The current growth in development along the SH6 southern corridor from recent years of 350 dwellings and 2,000 trips per day will continue over the next three years.
    d) The impact of additional activity (in visitor numbers) on the ski field on SH6 travel time and delays is linear (that is 4,500 visitors would result in (4,500-3,500)/3,500 = 28.6% higher delays at the Remarkables access). This is a simplified and conservatively low assumption as volume/delay relationships are typically non-linear whereby delays increase exponentially.
    e) The mode share assumptions adopted in the applicant's ITA have not been adopted, as there is no binding mechanism for these (as discussed elsewhere in this memo).

f) The SH6 / Remarkables access intersection continues to operate as proposed in the FTAA application – that is with all traffic in the peak turning left out and undertaking a U-turn at the Coneburn roundabout

g) There are up to 85 weekday and 36 weekend ski days per annum (ie. a 17-week season).

h) Travel time delays and associated vehicle operating costs and vehicle emissions can be calculated using NZTA's Monetised Benefit and Cost Manual (MBCM).

43. Key findings from this assessment are presented in the table below.

Table 4 Annualised delay to SH6 traffic and economic cost of additional delay

Route	Vehicle hours of delay to other SH6 traffic per annum			Economic cost of additional congestion on SH6 traffic per annum		
	Current 3500 Visitors	Stage 1 4500 Visitors	Stage 2 6000 Visitors	Current 3500 Visitors	Stage 1 4500 Visitors	Stage 2 6000 Visitors
2026 (based on July 2026 data)	13,532	17,399	23,198	$952,368	$1,224,473	$1,632,631
2026 Change due to FTAA Remarkables expansion proposal	-	3,866	9,666	-	$272,105	$680,263
2029 (includes 3 years of SH6 growth)	44,179	56,801	75,735	$3,108,637	$3,996,819	$5,329,091
2029 Change due to FTAA Remarkables expansion proposal	-	12,623	31,556	-	$888,182	$2,220,455

44. The impact of the additional vehicular traffic associated with the expanded Remarkables proposal is substantial, adding over 9,600 vehicle hours of delay per annum to other road users along SH6. When accounting for three years of continued SH6 growth due to development along the southern corridor this increases to over 30,000 vehicle hours of delay per annum. The economic cost of this additional delay and associated vehicle operating costs and emissions (due to idling time) equates to $680K in 2026 growing to $2.220M in 2029.

Wider traffic effects

45. We undertook a preliminary modelling exercise to understand the effectiveness of applying QLDC's transport model to understand impacts. The additional traffic associated with the FTAA application was added into the Queenstown-Lakes Transportation Model to understand the wider effects across the transportation network (not just on the SH6 corridor as per the assessment in paragraphs 34 - 44. The traffic was added to the future transport model reflecting levels of growth and development across the network anticipated in 2033[6].

[6] The transport model was last updated in 2022 to reflect growth forecasts that were set at the time, and is a summer seasonal model so is not specifically calibrated for the winter season. This analysis has not included fully updated the transport model to reflect the most recent growth forecasts published in 2026 (and available on the QLDC website here https://www.qldc.govt.nz/community/population-and-demand#projections) but recognises the quantum of growth across the District forecasts out to 2033.

46. Importantly, in our view it is not possible to calibrate the traffic model to reflect the high levels of delay and congestion currently experienced on the SH6 southern corridor, and therefore the model cannot be used reliably to predict how delays may increase over time. For this reason, the first principles assessment measuring the impact on SH6 traffic based on observed delays in paragraphs 34 - 44 provides a more representative assessment of local effects.

Discussion of transport effects

SH6 / Remarkables Ski Field Access Road intersection

47. The ITA (Table 9-2) demonstrates that the access road intersection already operates above capacity on high demand days, with queue lengths exceeding 800 m anticipated by 2028 without any additional traffic associated with the Project. We observe that this queuing would extend from the vehicle crossing through the Car Park A and B areas, directly conflicting with bus and shuttle movements within the proposed transit hub, and potentially negating the travel demand management measures the transport case relies upon. We note that the ITA's 800 m queue reflects SH6 traffic growth to 2028 only and does not include the additional vehicle movements from Stage 1 or Stage 2. In our view, the queues would be considerably longer if those movements were included.

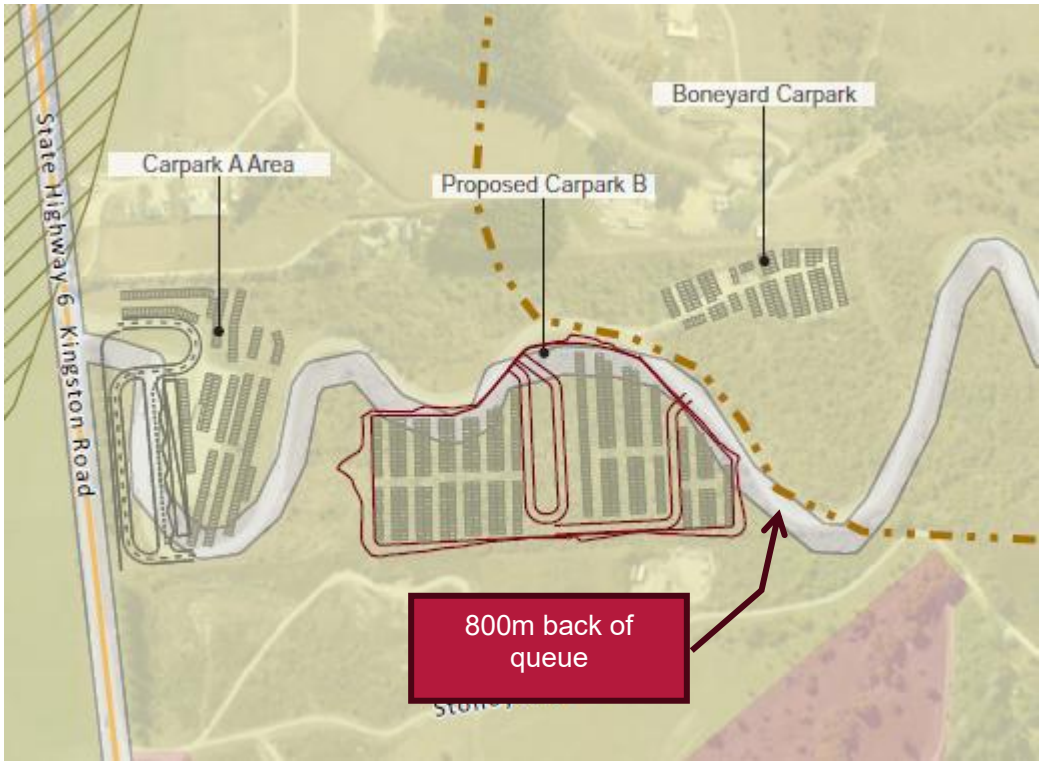


Figure 0.1 Location of the back of 800 queue

48. Our own analysis of TomTom data in paragraphs 34 - 44 shows that there are currently (ie in July 2026) delays (of 36-47 seconds) occurring on the southern SH6 approach to the intersection in the morning peak likely due to right turning vehicles blocking northbound SH6 traffic. As shown in Figure 5 below, there is insufficient room for northbound vehicles to be able to undertake a right turn on SH6. There are also lengthy delays for vehicles exiting the Remarkables access road in the weekday and weekend evening peak, with delays and queuing extending back from the SH6 / Coneburn roundabout.



Figure 5 Looking north on SH6 towards Remarkables access road intersection (source: Google Streetview)

49. In our view this demonstrates that the SH6 corridor is currently oversaturated at peak times during winter when the ski field is operating. We have not formally undertaken a traffic modelling exercise as the extent of congestion currently observed makes the calibration of and subsequent assessment of scenarios within a traffic modelling environment of little additional value.

50. In our view it is clear that the current Remarkables access onto SH6 is not functioning satisfactorily and we do not support further traffic generation which would exacerbate the current level of queuing and delays being experienced, unless further mitigation (ie beyond the current traffic management measures and those proposed by the Applicant) was identified to relieve congestion at the SH6 Remarkables access road. As congestion increases, we consider there will be a corresponding increase in driver frustration and impatience. This in turn may lead to an increase in risk taking and potentially unsafe manoeuvres, therefore congestion and potential safety effects are both relevant considerations.

SH6 / Coneburn Industrial Zone roundabout

51. Although it is not mentioned in the ITA or in the condition set, the Landscape Effects Assessment (LEA) proposes to make the current left-turn exit arrangement at the SH6 access permanent. This is currently implemented through a temporary traffic management plan when large volumes of exiting traffic are anticipated. The condition set does not explicitly state how traffic will be managed in the future through traffic management, however TRANS.4 does refer to "*for example left turn only*" implying that the current arrangement may be considered going forward.

52. Our TomTom analysis demonstrates that during the winter evening peak period there are lengthy delays for SH6 southbound traffic extending from the Coneburn roundabout back past the Remarkables access road (a distance of approximately 940m). We note that these levels of delay are not evident from the summer dataset.

53. Our view is that the SH6 corridor including the Coneburn roundabout is currently operating satisfactorily during the summer period as shown by the delays of under one minute in Table 3, however the addition of ski field traffic results in the extensive levels of delays along the corridor.

54. The forced left turn out of the Remarkables access results in the majority of ski field traffic undertaking a U-turn manoeuvre at the Coneburn roundabout. This manoeuvre opposes traffic on all three other approaches so it affects all other road users in the vicinity.In our view it is clear that the performance of the Coneburn roundabout is adversely affected by ski field traffic in the evening peak, and we do not support further traffic generation which would exacerbate the current level of queuing and delays being experienced, unless further mitigation (i.e. beyond the current traffic management measures) was identified to relieve congestion experienced at the Coneburn roundabout.

55. The introduction of an intersection upgrade such as traffic signals or a roundabout would provide for safe and controlled right turn movements into and out of the Remarkables access from SH6, avoiding the need for vehicles to travel an additional 1.84km (940m x 2) to the roundabout and back, and avoid exacerbating the existing delays and congestion occurring at the roundabout. We discuss the merits of such an upgrade further in paragraphs 72 - 78.

Wider network effects

56. The majority of the traffic associated with the ski field travels from/to Frankton and Queenstown. Figure 8-3 of the ITA shows 84-85% of vehicle arrivals and departures travel to/from the north. We observe that with the increased development anticipated along the SH6 southern corridor the proportion from the south may increase over time, however the vast majority of tourist and resident accommodation and commercial developments are situated to the north.

57. This traffic will pass the SH6 / Peninsula Road intersection which is the sole vehicle connection to the Kelvin Heights suburb. We extracted TomTom data for the month of July 2026 and observed that:

    a. Average left turn delays out of Peninsula Road in the morning and evening peak periods are 36 and 27 seconds respectively, and

    b. Average right turn delays out of Peninsula Road in the morning and evening peak periods are 43 and 63 seconds respectively.

58. These levels of delay demonstrate that the intersection is approaching capacity and increased SH6 volumes are anticipated to lead to deteriorating intersection performance and increasing delay. In our view this worsening of performance will occur irrespective of the Project and should be considered as part of the wider southern corridor study.

59. The Kawarau Falls Bridge is a two-way two-lane bridge which experiences tidal flow with higher northbound (towards Frankton) flows in the morning peak and higher southbound (from Frankton) flows in the evening peak. Preliminary traffic modelling runs in 2033 indicate that there will be spare capacity in the southbound direction in the morning and in the northbound direction in the evening peak period to accommodate the ski field traffic. As such in our view it is the continued residential greenfield development along the southern corridor which will 'trigger' the requirement for a second bridge, not the Project.

60. Further to the north along SH6 there are currently upgrades to the SH6 corridor between Grants Road and Lucas Place (as part of the NZUP Queenstown Package)[7] as referred to in section 3.1 of the ITA. This includes signalising the SH6 / SH6A intersection, SH6 / Joe O'Connell Drive intersection and upgrade to the Frankton public transport hub with corresponding improvements on the SH6 and SH6A approaches. The delivery of these works by NZTA is anticipated to improve the operation of the Queenstown transport network and this will be beneficial in accommodating further growth in traffic from the southern corridor.

61. The wider effects of the additional traffic associated with the Project will largely be felt along the SH6 corridor between SH6 / SH6A and SH6 / Coneburn roundabout during the weekday morning

[7] https://www.nzta.govt.nz/projects/queenstown-package

and evening peaks over the winter ski period. This will predominantly result in growth in traffic in reverse tidal flow direction along SH6. Beyond this SH6 corridor the impacts become increasingly dispersed and diluted. This has the potential to exacerbate current delays and congestion further afield, however the key impacts are anticipated to remain on the SH6 corridor between the Kawarau Falls bridge and the Coneburn roundabout.

Temporary traffic management on SH6

62. In a meeting held 15 April 2026 between NZTA, QLDC, ORC and the applicant, NZTA staff indicated that the winter ski season does not qualify as a "temporary event" under NZTA's traffic management framework. Our understanding is that this may preclude the TTMP from being implemented as a consented mitigation on SH6 in future seasons, as is proposed by the Applicant for example in Conditions TRANS.3 to TRANS.5. In the context of site development and an increase in ski traffic generation, this is a fundamental risk to the applicant's traffic management strategy that has not been resolved.

63. In our opinion, it is not appropriate to rely on a TTMP on a state highway on an ongoing basis, for the following reasons:

    a) A TTMP is intended to manage short-term events and works. The ski season recurs every year for around four months, and the demand is permanent.

    b) The TTMP relies on traffic controllers being present and on driver compliance. Excessive delays may encourage non-compliant right-turn exits and driver impatience that could impact on the safety of road users.

    c) The TTMP is likely to require NZTA approval each season, and the applicant has not demonstrated that NZTA will provide this.

    d) The ITA shows the left-exit movement exceeds capacity by 2028 from corridor growth alone, even with the TTMP in place (ITA Table 9-2). Our traffic analysis in paragraphs 34 - 44 demonstrates the corridor is currently operating over capacity in morning and evening peak during the winter ski season. This will worsen as future development occurs along the SH6 corridor and will be further exacerbated by any increase in ski field traffic. In short, the TTMP addresses safety in part by banning potentially dangerous right turn movements, but does not address the safe and efficient operation of the corridor.

64. Our view is that a TTMP does not satisfactorily address the effects of the ski field traffic on the safe and efficient operation of the SH6 corridor.

Interface between the lower car parks and SH6

65. We understand that transport operations within the site are managed by the applicant including through traffic management and the deployment of marshals on-site to direct traffic. This approach is supported in principle, and we do not comment on this further. However, if on-site operations are not suitably managed, there is the potential for congestion within the site to affect SH6, and for queuing at SH6 to affect the site. Specifically:

    a) Sufficient queue space should be provided between SH6 and the first conflict point within Car Park A for inbound vehicles. Given the highly peaked nature of arrivals and departures, and the very large carpark sizes, this may need to exceed the District Plan minimum requirement (of 30m under 29.5.8). If inbound vehicles block back, queues could extend onto SH6.

    b) The 800 m exit queue modelled in the ITA for 2028 would extend through Car Park A and could directly conflict with bus manoeuvring within the transit hub. We note that this 800m figure does not include any increase in vehicle movement as proposed with the Stage 1 and Stage 2 development.

    c) Under the Stage 2 development, Car Park A is expected to accommodate up to 749 parked vehicles and 1,400 shuttle passengers per day, with shuttle buses departing every five

minutes during the two-hour morning peak (ITA Figures 8-10 and 11.4). This is a significantly more complex environment than current operations.

66. In our view these matters must be satisfactorily addressed through conditions including the requirements for the traffic management plan addressing the on-site operation of traffic.

Mitigation proposed by the applicant

67. The applicant has prepared a suite of resource consent conditions (files with the application as *H.02A-Resource-Consent-Conditions-Updated-Updated-3-September-2026_Redacted*). We note that this does not propose any specific infrastructure-based measures to address congestion at the SH6 Remarkables access but does include the following matters, which we comment on whether we consider they are sufficient:

a) Produce a report based on modelling the SH6 access intersection including identifying any solutions to address safety concerns and proposing funding (TRANS.1). In our view this work should be undertaken as part of the application and not post-resource consent. We also note this condition does not refer to the efficient operation of SH6 so our concerns in relation to congestion are not addressed.

b) Implement these safety improvements unless otherwise advised by NZTA (TRANS.2). Our concerns in relation to TRANS.1 notwithstanding this does not address the timing of any such upgrade that may be deemed necessary.

c) Preparation of a temporary traffic management plan (TRANS.3-TRANS.5) to "*increase capacity for vehicle departures from the Remarkables Ski Field Access Road to State Highway 6 in the afternoon peak departure period*." This also includes a passing reference to examples of controls being the use of left turn out only, stop/go controls or temporary signals. These conditions are unsatisfactory from our perspective as:

- we understand from our online meeting with the Applicant's transport expert, QLDC and NZ Transport Agency Waka Kotahi (NZTA) on the 27th August 2026 that NZTA have not confirmed that ongoing temporary management of the access is satisfactory
- there is no commitment to any specific management measure and no assessment of the effectiveness of any such measure
- the condition does not address the congestion observed (refer our paragraphs 34 - 44) during the morning peak arrival period due to SH6 right turners blocking northbound through traffic.

d) The construction and monitoring of the carparking areas at the base of the access road adjacent to SH6 (TRANS.6-TRANS.8). We are encouraged by the proposal to stage car parking provision "*in response to actual travel demand and parking demand as monitored…*" however there is a lack of detail as to the relationship between the monitoring outcomes (under TRANS.13) and the staging responses. These should be clearly articulated in the conditions set in our view. Noting our concerns in relation to congestion we do not support the addition of any additional private vehicle parking on-site (or corresponding additional traffic movements) until the traffic impacts are identified and be suitably mitigated. The mitigation should in our view include a permanent intersection upgrade at the SH6 Remarkables access which is suitably futureproofed for the Te Tapuae Southern Corridor Structure Plan and reflected in the condition set. We recommend a cap by placed on vehicle movements into and out of the skifield until such time as this is addressed.

e) The preparation of a Travel Demand and Parking Management Plan (TRANS.9-TRANS.13). We support this in principle but the effectiveness of management measures (in isolation from infrastructure upgrades) have not been demonstrated within the application. In our view any management measures should be clearly specified and assessed to demonstrate their effectiveness as part of the application.

Infrastructure based mitigation options

68. Several mitigation options are discussed or noted in the application materials, and we address these in turn below.

69. Formalising the left-turn exit restriction through permanent physical measures (refer section 3 of the LEA), such as a splitter island, is in principle a positive safety step. However, we note this has not been assessed in the ITA and is not reflected in the condition set. Furthermore:

    a) A permanent left-turn restriction does not increase vehicle crossing capacity. As modelled, the left-exit movement will itself exceed capacity by 2028 under SH6 corridor growth alone (ITA Table 9-2). The restriction addresses safety but not the fundamental capacity problem.

    b) There is no confirmed design, timeline, or funding for these works, and no condition requires them to be in place before any stage of development commences or operates. A condition requiring installation prior to the first ski season following consent being granted would be appropriate, whilst acknowledging that this would not resolve the underlying capacity issue at the intersection.

    c) Making the left-turn restriction permanent will permanently embed U-turn demand at the Coneburn roundabout, which is causing lengthy delays on the current network.

    d) This also fails to address the delays observed (refer our paragraphs 34 - 44) during the morning peak arrival period due to SH6 right turners blocking northbound through traffic.

70. The applicant states it will "consider" variable speed limit signs (LEA Section 3.0). This is not a firm commitment, no timeline is provided, and NZTA approval would be required. Variable speed limits may offer a safety benefit but does not in our view address the fundamental capacity and queue management issues at the SH6 access.

71. The commitment to undertake a vehicle crossing investigation within 12 months of the Doolans Base Building opening is the closest the application comes to acknowledging that a physical upgrade is required (TRANS.1). We note the following concerns:

    a) The seal width shortfall against QLDC PDP section 29.14.10 (Diagram 10) is an existing deficiency that the development will exacerbate and should be addressed as a condition precedent to Stage 1 operation, independent of the broader investigation.

    b) The investigation is triggered by the opening of the Doolans Base Building, a Stage 2 event. The ITA demonstrates the vehicle crossing will be operating above capacity by 2028, well before Stage 2. Deferring the investigation until after Stage 1 is operational means the problem will worsen before any remedial action is taken. The investigation trigger should therefore be brought forward to prior to commencement of Stage 1 construction.

    c) The nature, cost, funding, and timing of any improvement remain entirely unspecified, and there is no guarantee that traffic effects such as congestion, queuing and associated safety concerns will be mitigated in the future.

72. The installation of a roundabout or traffic signals at the access was discussed in the online meeting with the Applicant's transport expert, QLDC and NZ Transport Agency Waka Kotahi (NZTA) on the 27th of August 2026. NZTA's Planning Policy Manual (PPM) has recently been updated to provide guidance in relation to when right turn bays and roundabouts are required at T-intersections on the state highway network. The relevant guidance is included in Figure 5-2 of the *Access onto the state highway from private property*[8] document in the PPM.

73. This guidance is reproduced in Figure 2. It shows when a right turn bay (RTB) or a roundabout is expected, based on traffic volumes on the state highway and on the side road. The guidance covers state highways carrying up to 10,000 vehicles per day (vpd). In 2025, SH6 south of

[8] https://www.nzta.govt.nz/assets/resources/planning-policy-manual/docs/PPM-access-onto-the-state-highway-guide-from-private-property.pdf

Peninsula Road carried 17,700 vpd[9], well above the range the guidance covers. Traffic using the Remarkables access during the ski season is generally between 1,000 and 2,500 vpd, as shown by the arrows on Figure 2.

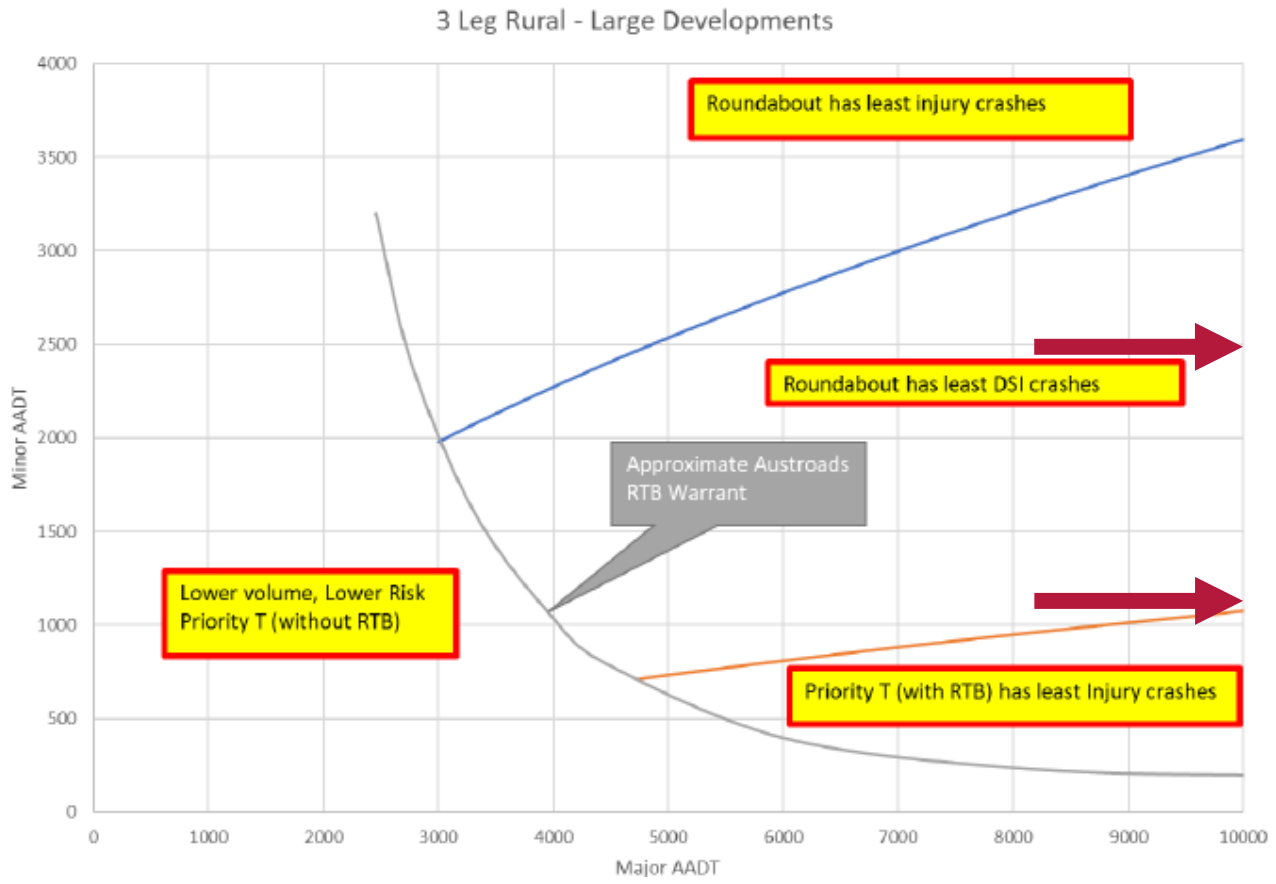


Figure 2 Thresholds for right turn bay and roundabout treatments for larger developments (sourced from NZTA guidance)

74. The access currently has no right turn bay. Under the NZTA guidance, that layout would only be expected where state highway volumes are below about 3,000 vpd. Current SH6 volumes are almost six times higher, and beyond the upper limit of the guidance. In our view this indicates that the existing intersection falls well short of what NZTA's guidance would expect, and that a roundabout or a similar level of treatment would be expected at current volumes. The gap between the existing layout and the expected standard will widen as SH6 traffic and ski field traffic increase.

75. We note that the TSCSP indicates intersection upgrades along the SH6 southern corridors as roundabouts. The TSCSP identifies a range of potential interventions, but they are not consented, nor any funding secured. We understand this is addressed by Mr Langman in his report for QLDC. As the traffic associated with the ski field operations is strongly tidal in nature with short and sharp peaks, we recommend that traffic signals would be a more suitable infrastructure response to manage the arrival and departure of traffic including providing for a safe right turn into and out of the SH6 Remarkables access.

[9] Refer to page 13 of the ITA

76. Traffic signals enable the green time to be actively managed between conflicting traffic movements which means that the performance of the SH6 approaches can be managed and maintained including when ski field traffic is arriving or departing.

77. In order for signals to work effectively, and noting that the SH6 southern corridor traffic volumes are increasingly due to development traffic, we recommend that traffic signals should be designed to be appropriately futureproofed. This would account for anticipated SH6 traffic growth as well as the increase in traffic associated with the ski field expansion. This is likely to require a much larger intersection footprint compared to the current layout, including dedicated right turn bays and potentially two through lanes on the SH6 approaches.

78. We recommend that traffic signals be assessed further including as a permanent (and not temporary) mitigation measure. This will remove the requirement for vehicles to undertake u-turn manoeuvres at the Coneburn roundabout and has the potential to address both morning and evening peak congestion.

Recommendations

79. The access onto SH6 is not functioning satisfactorily and currently falls well short of NZTA guidance in terms of design standard. We do not support further traffic generation which would exacerbate the current level of queuing and delays being experienced, unless further mitigation (i.e. beyond the current traffic management measures) is identified and implemented to relieve congestion at the SH6 Remarkables access road.

80. We recommend that traffic signals be assessed further including as a permanent (and not temporary) mitigation measure for the SH6 Remarkables access. This will remove the requirement for vehicles to undertake u-turn manoeuvres at the Coneburn roundabout and has the potential to address both morning and evening peak congestion associated with skifield arrivals and departures.

81. Although we consider that the transport effects of the proposal will not be adequately addressed under the conditions proposed by the applicant, if the Panel is minded to grant consent, we recommend conditions that:

    a. Cap the peak hour vehicle movements at the SH6 Remarkables access at current levels until a satisfactory SH6 Remarkables access upgrade is operational. This cap could be managed through a car park booking system.

    b. Require the applicant secure NZTA approval for the SH6 Remarkables access upgrade which is also appropriately futureproofed in the context of the SH6 Southern Growth corridor. We consider traffic signals are likely to suit the tidal nature of ski traffic, but the form of upgrade should be confirmed through this assessment.

    c. Require binding mode share and vehicle occupancy targets (or maximum vehicle movements), monitoring of queue lengths and vehicle movements at the SH6 access, annual reporting, and defined actions if targets are not met.

    d. Require a traffic management plan for the lower car parks that manages inbound queues to avoid queuing onto SH6, and to management outbound queues to ensure the efficiency operation of the transit hub is maintained.

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